Town of Hanson

Board of Selectmen

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April 26, 2005

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

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street
Worcester, Massachusetts 01608

Re: NPDES Phase II Small MS4 General Permit
Town of Hanson, Massachusetts Annual Report
MADEP Transmittal No. W-035899
EPA Permit Number MA041037

To Whom It May Concern:

The Town of Hanson, Massachusetts is pleased to provide you with the attached National Pollutant Discharge Elimination System (NPDES) Phase II Small MS4 General Permit Annual Report for the period from March 2004 to March 2005. In general, the Town has developed a stormwater management program and will continue to implement activities in accordance with regulatory requirements and as available funding will allow.

Should you have any questions, please do not hesitate to call Richard Harris 781-293-2822

Very truly yours,

Catherine A. Kuchinski

Catherine A. Kuchinski
Board of Selectmen, Chairman

Enc.

Municipality/Organization: Town of Hanson, MA

EPA NPDES Permit Number: MA041037

MaDEP Transmittal Number: W-035899

Annual Report Number
& Reporting Period: No. 2: March 04-March 05

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: **Richard Harris** Title: **Town Highway Department**

Telephone #: **781-293-2822** Email:

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: Catherine A. Kuchinski

Printed Name: **Catherine Kuchinski**

Title: **Board of Selectmen, Chair**

Date: **April 26, 2005**

Part II. Self-Assessment

In general, the Town of Hanson's stormwater management activities for the second 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 Management 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 on 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 storm water 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 in accomplishing the Program mission.

The activities performed during Permit Year Two focused on the continued development of a Town-wide Geographic Information System, including drainage structure mapping. In addition, an outfall field screening and testing program was also implemented during this permit year, with the collected data compared with the applicable state and federal standards.

The Town also continued with control measures that were initiated during the previous permit year, including improving local good housekeeping programs; and communicating the Town's Plan to local watershed associations.

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	Partnership with local Watershed Associations	Con. Comm., DPW, BOH	Regular Meeting Attendance	North and South River Watershed Association (NSRWA, Samantha Woods, Exec. Director) – Meeting held during March 2005 – Purchased rain barrels and dog waste scoopers	Continued updating, seek alternative funding opportunities (such as 604b and 319 grants).
Revised					
2	Develop Brochures	DPW	Quarterly Mailings	Water department mailings and water quality updates.	Continued mailings.
Revised					
3	WEB Site Public Service Postings	IT Dept., DPW	WEB Site Publication & Maintenance	NSRWA information transfer and data publication of data, local WEB updates	NSRWA information transfer and data publication of data, local WEB updates
Revised					
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 of Priority Water Bodies	170 outfalls were inspected and 67 were field screened during Fall 2004 for select indicator parameters. Based on the results, samples were collected from 8 outfalls and 12 surface water locations	Continue 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 during April 2003. 170 outfalls mapped during Year 2	Continued outfall and catchbasin mapping and completion of GIS mapping
Revised					
4	Water Quality Testing	DPW	Testing of Priority Water Bodies	Dry and wet weather screening at 67 outfalls and wet weather sampling of 8 outfall locations	Continue dry weather and wet weather field screening of outfalls after completion of GIS mapping as necessary
Revised					
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions and Action	Finalized consolidated regulations and investigate areas for revisions	Revisit 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, BOH	Connectivity Mapping, Bylaw Enforcement and Fines	Continue GIS mapping and local bylaw enforcement	Continue GIS mapping and local bylaw enforcement
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	Finalized consolidated regulations and investigate areas for revisions	Revisit 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	Continued GIS mapping	Continue GIS mapping and develop protocol for submitting as-builts 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	Finalized consolidated regulations and investigate areas for revisions	Revisit 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					
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	Improved Street Sweepings	DPW		Monthly	Monthly
Revised					
12	Improved Catch Basin Cleanings	DPW		Semi-annual Collections	Semi-annual Collections
Revised					
13	Household Hazardous Waste Days	DPW		Annual Collection	Annual Collection
Revised					
14	Drain Stenciling	DPW	Aquifer Protection Area	GIS Mapping continuing to locate catch basins	Complete GIS mapping and stencil drains in Aquifer Protection Area
Revised					
Revised					
Revised					

6a. Additions

18	Employee Training	DPW	Seminar Attendance	Seven employees attended storm water training seminar held at Holy Cross	Will continue to identify and attend appropriate training sessions

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
6	GIS Mapping	DPW	GIS Mapping of Priority Waters and Drainage Patterns	Mapping of drainage structures ongoing	Continue drainage structure mapping and development of GIS mapping
Revised					
4	Water Quality Testing	DPW	Semi-Annual Water Quality Testing	67 outfall locations were field screened for select parameters and samples were collected from 8 outfall and 12 surface water locations	Continue dry weather and wet weather field screening of outfalls after mapping, as necessary
Revised					
15	Stormwater Modeling	DPW	Needs Assessment for Category 5 Water Bodies	Continued mapping of outfall locations. 170 locations were identified during Year 2	Continue outfall and catchbasin mapping
Revised					
16	Misc. Structural BMPs as Needed	DPW	i.e. Construction Improvements	None to date (scheduled for Permit Years Three, Four and Five as needed)	To be determined
Revised					
17	Misc. Non-Structural BMPs as Needed	DPW	i.e. Bylaw Enforcement, Fees and Fines	None to date (scheduled for Permit Years Three, 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 is ongoing and water quality testing began during Year 2. WLA assessment will follow.

Part IV. Summary of Information Collected and Analyzed

Permit Year 1 Activities and Information

During Permit Year 1, the Town reviewed the local, state and federal bylaws relative to stormwater and aquifer protection, and determined that they adequately regulated, and were 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 received a project approval certificate from the Massachusetts Water Abatement Trust State Revolving Fund for $238,000 and continued the process of mapping its storm drainage system. The Town also began field screening of outfalls for both dry and wet conditions under the SRF program.

Permit Year 2 Activities and Information

During Permit Year 2, an outfall inspection program identified 170 outfall locations, and performed dry and wet weather field screening at 67 of the locations. These locations were field screened for the following:

1. pH;
2. Temperature;
3. Total Dissolved Solids;
4. Specific Conductance; and
5. Turbidity.

Based on the field data, 8 of the outfall locations were resampled for the following during 2004:

1. E-coli;
2. Total Phosphorous,
3. Dissolved Phosphorous,
4. Ammonia,
5. Surfactants, and
6. Total Suspended Solids.

Of these samples, one location had elevated levels of e-coli above the State's Secondary Maximum Contaminant level of 126 (colonies/100 mL).

Elevated levels of e-coli may be representative of warm blooded animals (such as humans) or cold blooded animals. Following the wet weather testing and further discussions with the Town, additional testing of Fecal Coliform bacteria or Fecal Strep may be recommended to ascertain potential sources.

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. An employee training seminar has been schedule by the PCHA for Summer 2004.

Part V. Program Outputs & Accomplishments (OPTIONAL)

TO BE COMPLETED IN LATER YEARS OF THE PERMIT PROGRAM

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)	