TELEPHONE
781-826-3189

OFFICE OF THE SUPERINTENDENT

FAX
781-826-8915

TOWN OF HANOVER
DEPARTMENT OF PUBLIC WORKS

40 POND STREET
HANOVER, MASSACHUSETTS 02339-1693

April 26, 2006

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

RE: NPDES Phase II Small MS4 General Permit
Town of Hanover, Massachusetts Annual Report
MADEP Transmittal No. W-035898
EPA Permit Number MA041036

To Whom It May Concern:

The Town of Hanover, 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 2005 to March 2006. In general, the Town has continued the development of its stormwater management program and has continued to implement activities in accordance with regulatory requirements as funding has become available.

Should you have any questions, please do not hesitate to call me at (781) 826-3189.

Sincerely,

Victor Diniak
Superintendent of Public Works

Municipality/Organization: Town of Hanover, MA

EPA NPDES Permit Number: MA041036

MaDEP Transmittal Number: W-035898

Annual Report Number
& Reporting Period: No. 3: March 05-March 06

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: **Victor Diniak** Title: **Department of Public Works**

Telephone #: **781-826-3189** Email: **vdiniak@hanoverdpw.org**

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: **John L. Benevides**

Title: **Chairman of the Board of Public Works**

Date: **April 26, 2006**

Part II. Self-Assessment

In general, the Town of Hanover's stormwater management activities for the March 2005 through March 2006 period 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 continue to 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 Three 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 completed, 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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1	Partnership with local Watershed Associations	Con. Comm., DPW, BOH	Regular Meeting Attendance	Continued updating, seek alternative funding opportunities	Continue updating, seek alternative funding opportunities
Revised					
2	Develop Brochures	DPW	Quarterly Mailings	Continued water department mailings and water quality updates.	Continue mailings, hand out fliers at semi-annual haz. Waste days
Revised					
3	WEB Site Public Service Postings	IT Dept., DPW	WEB Site Publication & Maintenance	Association information transfer and data publication of data	Association information transfer and data publication of data, develop website
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
4	Water Quality Testing	DPW	2 Rounds of Water Quality Sampling of Priority Water Bodies	Wastewater land use study for the South end of Town	Wastewater land use study for the South end of Town
Revised					
5	Community Cleanup Days	DPW	Annually	Conducted in Spring 2005	Scheduled for Spring 2006
Revised					
Revised					
Revised					
Revised					
Revised					

2a. Additions

	Storm Drain Stenciling By Boy Scouts	DPW	Stencil all catchbasins within critical areas	Some stenciling performed	Complete in critical areas

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
6	Catch Basin/Outfall and Receiving Water Mapping	DPW	GIS Mapping	Field verified maps and identified 100 missing catchbasins	Conduct manhole inspections
Revised					
4	Water Quality Testing	DPW	Testing of Priority Water Bodies	Funded wastewater study of water (lot-by-lot analysis) protection district	Conduct wastewater study
Revised					
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions and Action	Continue to review regulations and revise as appropriate	Continue to review regulations and revise as appropriate
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	Continued GIS mapping and continued local bylaw enforcement	Continued GIS mapping and verification and continue 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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
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	Complete 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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Revisit 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	Increase surveillance of post-construction activities, develop procedure for enforcing homeowner associations responsibly for stormwater structure maintenance
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
11	Improved Street Sweepings	DPW	Semi-annual Collections	Semi-annual sweeping	Semi-annual sweeping town-wide, one week every three weeks in critical areas
Revised					
12	Improved Catch Basin Cleanings	DPW	Semi-annual Collections	Annual Collections	Annual Collections
Revised					
13	Household Hazardous Waste Days	DPW	Annual Collections	Semi-annual Collection	Semi-annual Collection
Revised					
14	Drain Stenciling	DPW	Aquifer Protection Area	Began stenciling of catchbasins in critical areas	Continue drain stenciling
Revised					
Revised					
Revised					

6a. Additions

18	Employee Training	DPW	Seminar Attendance		

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
6	GIS Mapping	DPW	GIS Mapping of Priority Waters and Drainage Patterns	Continued development of GIS mapping	Continued development of GIS mapping
Revised					
4	Water Quality Testing	DPW	Semi-Annual Water Quality Testing	Funded wastewater land use study for the South end of Town	Wastewater land use study for the South end of Town
Revised					
15	Stormwater Modeling	DPW	Needs Assessment for Category 5 Water Bodies	Continued development of GIS mapping	Continued development of GIS mapping
Revised					
16	Misc. Structural BMPs as Needed	DPW	i.e. Construction Improvements	None to date (scheduled 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 Fines	None to date (scheduled 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 completing GIS mapping of the drainage system and receiving waters, as approved by the DEP, and water quality screening and testing from the outfall locations that have been mapped in the vicinity of the North River watershed area. The data findings confirm past conclusions that the North River and its tributaries (i.e. the Indian Head River) are impaired from excessive levels of Total Coliform and e-coli.

A more detailed WLA assessment and Land Use Evaluation will follow.

Part IV. Summary of Information Collected and Analyzed

Permit Year 1 Activities and Information

During the previous Permit Year, the Town reviewed the local, state and federal bylaws relative to stormwater and aquifer protection, and determined that they appeared 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.

Permit Year 2 Activities and Information

During Permit Year 2, outfall mapping and water quality screening/testing continued in the North River drainage basin. Assessor mapping was performed to determine the public/private impacts to its storm drainage system.

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 and will continue to improve its good housekeeping programs.

Permit Year 3 Activities and Information

During Permit Year 3, the Town allocated funding for a lot-by-lot analysis in critical areas. 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 and will continue to improve its good housekeeping programs.

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 %)	100
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	2
▪ community participation	(%)	Varies
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	Y

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				
▪ Post-Development Stormwater Management				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	98
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	75
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	100%
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	0
% of population on septic systems	(%)	100

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)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1
Total number of structures cleaned	(#)	2800
Storm drain cleaned	(LF or mi.)	NA
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.)		Compost
Cost of screenings disposal	($)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1

Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	1
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost
Cost of sweepings disposal	($)	0
Vacuum street sweepers purchased/leased	(#)	2
Vacuum street sweepers specified in contracts	(y/n)	NA

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		50%
▪ Fertilizers	(lbs. or %)	50%
▪ Herbicides	(lbs. or %)	100%
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	99.9 0.1
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 %)	25
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	NA