TOWN OF MEDFIELD

Office of

BOARD OF SELECTMEN

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MEDFIELD, MASSACHUSETTS 02052-0315

MICHAEL J. SULLIVAN
Town Administrator

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MAY - 3 2006

April 27, 20056

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 Medfield, Massachusetts Annual Report
MADEP Transmittal No. W-035871
EPA Permit Number MAR041131

To Whom It May Concern:

The Town of Medfield, 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 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 Ken Feeney at (508) 359-8505 x. 600.

Sincerely,

Michael Sullivan
Town Administrator

Part II. Self-Assessment

In general, the Town of Medfield's stormwater management activities for the third 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.

During Permit Year One, the Town focused on preparing a Stormwater Management Plan (dated June 26, 2003); in obtaining local funding for stormwater management and Geographic Information System (GIS) mapping activities; reviewing and enforcing current regulations; improving local good housekeeping programs; and communicating the Town's Plan to local watershed associations. This required communication among the various departments in town. The financing of the project is critical for the proposed program success and future scopes of work will be consistent with discussions held with the Massachusetts Department of Environmental Protection on March 16, 2004.

The DEP-approved scope of work focuses on GIS mapping and outfall screening and sampling. The Town is in the process of developing a new GIS system based on aerial photography conducted on April 15, 2001 and in 2003 the Town purchased a sub-meter GPS unit. The ongoing data collection will serve as the basis for developing a new 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.

In Permit Year 2 the Town mapped their catchbasins, manholes and completed additional outfall mapping. The Town also held meetings regarding herbicide and pesticide impacts to surface water bodies, and appropriated funds for a pond study. Funds were also appropriated to notify residents of potential herbicide and pesticide impacts through mailings.

In Permit Year 3, the Town performed catchbasin stenciling and stormdrain infrastructure mapping.

In Permit Year 4, the Town will continue to perform stormdrain infrastructure mapping and adding this information into the Town GIS data. The Town will be working with the Neponset River Watershed Association to study the Mill Mine Brook to determine potential sources of contamination to the river.

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	Correspondence with the Charles River and Neponset River Watershed Associations (NRWA)	Working with NRWA to sample and develop BMP's for the Mill Mine Brook. Continued updating, seek alternative funding opportunities (such as 604b and 319 grants).
Revised					
2	Develop Brochures	DPW	Quarterly Mailings	Town funding was appropriated for herbicide and pesticide awareness mailings	Prepare and issue mailings
Revised					
3	WEB Site Public Service Postings	IT Dept., DPW	WEB Site Publication & Maintenance	Association information transfer and data publication of data, local WEB updates	Association 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 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	Stormdrain network mapping and additional catchbasin, manhole mapping and outfall mapping. Catchbasin stenciling.	Dry weather and targeted wet weather field screening of outfalls after mapping. Working with Taunton River Watershed Association to do sampling around Mill Mine Brook.
Revised					
5	Community Cleanup Days	DPW	Annually	Conducted in Spring 2005	Scheduled for Spring 2006
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 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	Stormdrain network mapping and additional catchbasin, manhole mapping and outfall mapping.	Complete storm drain mapping and stencil catchbasins. Dry weather and targeted wet weather field screening of outfalls after mapping
Revised					
4	Water Quality Testing	DPW	Testing of Priority Water Bodies	Screening to be performed after completion of outfall and catchbasin mapping	Dry weather and targeted wet weather field screening of outfalls after mapping. Working with Taunton River Watershed Association to do sampling around Mill Mine Brook.
Revised					
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions and Action	Finalized consolidated regulations and investigate areas for revisions	Review regulations 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	Complete GIS mapping 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 of applicable stormwater and aquifer protection regulations	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	Finalized consolidated regulations 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					
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 Collections	Semi-annual Collections
Revised					
12	Improved Catch Basin Cleanings	DPW	Semi-annual Collections	Semi-annual Collections	Semi-annual Collections
Revised					
13	Household Hazardous Waste Days	DPW	Annual Collections	Annual Collection	Annual Collection
Revised					
14	Drain Stenciling	DPW	Aquifer Protection Area	Stencil drains in Aquifer Protection Areas	Stencil additional drains in Aquifer Protection Area
Revised					
Revised					
Revised					

6a. Additions

18	Employee Training	DPW	Seminar Attendance	Herbicide and pesticide impact training and other highway association training classes.	Identify appropriate training through highway associations or other association

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 catchbasin and outfall mapping	Continue and complete catchbasin and outfall mapping
Revised					
4	Water Quality Testing	DPW	Semi-Annual Water Quality Testing	Screening to be performed after completion of outfall and catchbasin mapping	Dry weather and wet weather field screening of outfalls after mapping
Revised					
15	Stormwater Modeling	DPW	Needs Assessment for Category 5 Water Bodies	Continued GIS mapping of storm drain system	Continue and complete storm sewer system 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)	Working with the Neponset River Watershed Association to study the Mill Mine Brook and study stormwater BMP's
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 continues to focus on GIS mapping of the drainage system and receiving waters. The coming year will see a focus on the completion of the storm drain mapping and the initiation of a catchbasin stenciling program. Dry and wet weather sampling to be performed following the completion of the mapping program. 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 continues the process of mapping its storm drainage system and will initiate a stenciling program for catchbasins in the coming year. Field screening and sampling of outfalls for both dry and wet conditions will be initiated once the outfall locations have been determined. The immediate focus will be on the outfall pipes located the watershed areas of the Massachusetts Section 303d water bodies located in Town.

The Town has appropriated funds to provide notification regarding the potential impacts of herbicide and pesticide use on water bodies and will initiate updates to the public through water bill mailings and postings on the local WEB site. The Town will also work on alternatives to promote volunteerism.

The Town will be working with the NRWA to sample the stormwater influence on the Mill Mine Brook. The NRWA will work to develop BMP's for this area of the Town.

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)	