



# TOWN OF MEDFIELD

Office of  
BOARD OF SELECTMEN

TOWN HOUSE, 459 MAIN STREET  
MEDFIELD, MASSACHUSETTS 02052-2009

(508) 359-8505

MICHAEL J. SULLIVAN  
Town Administrator

April 29, 2009

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

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APR 29 2009

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-221109  
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 April 1, 2008 to March 31, 2009. Over the past year, the Town has continued to implement its stormwater management program.

In 2008, the Town continued with its pond de-nitrification program at Vine Lake, Bakers Pond, Danielson Pond, Flynn's Pond and Tubitty Pond. The Town also began the implementation of a Sewer System Evaluation Survey (SSES) and Infiltration/Inflow (I/I) program to reduce flows to the Medfield Wastewater Treatment Plant. The proposed I/I activities were reported to EPA and DEP on February 5, 2008 as part of the compliance requirements of NPDES Permit No. MA0100978 and are being conducted under the Massachusetts State Revolving Fund (SRF) program.

Should you have any questions, please do not hesitate to call Ken Feeney at (508) 359-8505 x. 600.

Sincerely,

Michael Sullivan  
Town Administrator

**Municipality/Organization:** Town of Medfield, MA

**EPA NPDES Permit Number:** MAR041131

**MaDEP Transmittal Number:** X227995

**Annual Report Number  
& Reporting Period:**

No. 6: April 1, 2008 – March 31, 2009

APR 29 2009

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** Ken Feeney

**Title:** Department of Public Works

**Telephone #:** 508-359-8505 x. 600

**Email:** kfeeney@medfield.net

#### 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:** Michael Sullivan

**Title:** Town Administrator

**Date:** April 29, 2009

## Part II. Self-Assessment

In general, the Town of Medfield's stormwater management activities for the sixth year of the General Permit (April 1, 2003 to March 31, 2009) were in conformance with the Notice of Intent (Massachusetts DEP form BRP WM 08A) and schedule of activities from 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 bodies);
4. Ensuring that the Program is current and innovative; and
5. Providing Program administration.

The Water Quality Stewardship element of the program focused on the protection of the local water supply and adjacent Section 303.d waters located within the Town. To this end, staff will continue to develop and improve the Program to reduce storm water pollution to the maximum extent practicable and eliminate prohibited non-storm water discharges, while increasing public understanding and involvement in storm water management by various Town departments. Program priorities will include 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. To this end, Medfield has been very active with information transfer and attending workshops sponsored by both the Charles River Watershed Association and the Neponset River Watershed Association, and becoming educated on the new Massachusetts Stormwater Regulations. Another high priority of staff will be to keep abreast of the latest technology and approaches to stormwater management (such as the sustainable design). Program activities also strive to encourage environmental stewardship and build on partnerships with other agencies, neighboring towns, and the community for active participation in accomplishing the mission.

During Permit Year Six, the Town shifted its mapping efforts from the stormwater connectivity to mapping the wastewater system since it collects flow and directs it to the Medfield Wastewater Treatment Plant located on West Street (along the Charles River). To date, the wastewater system mapping is about 90% complete. The Town also continued to work on public outreach activities including a third round of stenciling of the Town's catch basins.

The Town's Conservation Commission continued its pond de-nitrification program at Vine Lake, Bakers Pond, Dan Flynn's Pond and Tubitty Pond. The local Department of Public Works also continued with its Sewer System Evaluation activities, particularly to assess the impacts of infiltration/inflow (I/I) on the Charles River. The Town has undertaken a program to reduce flows to the Medfield Wastewater Treatment Plant in 2008. The proposed I/I activities were reviewed by DEP on February 5, 2008 as part of the compliance requirements of NPDES Permit No. MA0100978. The work is being funded using a low interest loan of \$1,009,030 from the Massachusetts Clean Water State Revolving Fund (SRF) Program.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
1 Revised	Partnership with local Watershed Associations	Con. Comm., DPW, BOH	Regular Meeting Attendance	Correspondence with the Charles River and Neponset River Watershed Associations	Continued updating, seek alternative funding opportunities (such as grants and SRF monies).
2 Revised	Develop Brochures	DPW	Quarterly Mailings	Town funding was appropriated for herbicide and pesticide awareness mailings	Prepare and issue mailings
3 Revised	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					

**1a. Additions**


**2. Public Involvement and Participation**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
4 Revised	Water Quality Testing	DPW	2 Rounds of Water Quality Sampling of Priority Water Bodies	Completed outfall pipe mapping and an estimated 100% of the storm system connectivity, and related testing. Continued to stencil catch basins.	Continue to stencil catch basins and complete connectivity mapping. Continued testing as related to the WWTP NPDES Permit.
5 Revised	Community Cleanup Days	DPW	Annually	Conducted in Spring 2008	Scheduled for Spring 2009
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6 Revised	Catch Basin/Outfall and Receiving Water Mapping	DPW	GIS Mapping	Completed outfall pipe mapping and an estimated 75% of the storm system connectivity. Continued to stencil catch basins.	Continue to stencil catch basins and complete connectivity mapping. Dry weather and wet weather field screening of outfalls after mapping.
4 Revised	Water Quality Testing	DPW	Testing of Priority Water Bodies	Screening performed after completion of outfall and catch basin mapping	Continued testing as related to the WWTP NPDES Permit.
7 Revised	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions and Action	Finalized consolidated regulations and investigate areas for revisions	Investigate areas for revisions, such as sustainable design and implementing new DEP stormwater standards
8 Revised	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.
9 Revised	Misconnection/Illegal Dumping and Correction	DPW, BOH	Connectivity Mapping, Bylaw Enforcement and Fines	Undertook a detailed camera investigation of primary utilities in the Charles River Watershed.	Implementation of an extensive I/I improvement program with SRF monies.

### 3a. Additions

20	I/I and SSES Activities	DPW	I/I Reduction	SSES Report Completed, System Repairs, Rain and Stream Gauge Installations, WW SCADA System	I/I Program Completion and Ongoing SSES activities (i.e. smoke testing)
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**4. Construction Site Stormwater Runoff Control**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
7 Revised	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Finalized consolidated regulations of applicable stormwater and aquifer protection regulations	Investigate areas for revisions, such as sustainable design and implementing new DEP stormwater standards
8 Revised	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
10 Revised	Improved As-Built Review	DPW, Planning Board	Electronic As-Built Submittals on Town GIS System	Completed outfall pipe mapping and an estimated 90% of the wastewater system.	Complete GIS mapping of the wastewater system and collect as-built of I/I work
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
7 Revised	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Finalized consolidated regulations of applicable stormwater and aquifer protection regulations	Investigate areas for revisions, such as sustainable design and implementing new DEP stormwater standards
8 Revised	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					

**5a. Additions**


**6. Pollution Prevention and Good Housekeeping in Municipal Operations**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities – Permit Year 5</b>
11 Revised	Improved Street Sweepings	DPW	Semi-annual Collections	Semi-annual Collections	Semi-annual Collections
12 Revised	Improved Catch Basin Cleanings	DPW	Semi-annual Collections	Semi-annual Collections	Semi-annual Collections
13 Revised	Household Hazardous Waste Days	DPW	Annual Collections	Annual Collection	Annual Collection
14 Revised	Drain Stenciling	DPW	Aquifer Protection Area	Conducted a third round of drain stenciling in 2008.	Conducting a fourth round of drain stenciling in 2009.

**6a. Additions**

18	Employee Training	DPW	Seminar Attendance	Attended several workshops, including CRWA sustainable and urban design seminar.	Identify appropriate training through local highway associations, CRWA and NRW.

**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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6 Revised	GIS Mapping	DPW	GIS Mapping of Priority Waters and Drainage Patterns	Completed outfall pipe mapping and an estimated 75% of the storm system connectivity. Continued to stencil catch basins.	Continue to stencil catch basins and complete connectivity mapping. Dry weather and wet weather field screening of outfalls after mapping.
4 Revised	Water Quality Testing	DPW	Semi-Annual Water Quality Testing	Screening to be performed after completion of outfall and catch basin mapping	Dry weather and wet weather field screening of outfalls after mapping
15 Revised	Stormwater Modeling	DPW	Needs Assessment for Category 5 Water Bodies	Completed outfall pipe mapping and an estimated 75% of the storm system connectivity. Continued to stencil catch basins.	Continue and complete storm sewer system mapping
16 Revised	Misc. Structural BMPs as Needed	DPW	i.e. Construction Improvements	None to date (scheduled for Permit Year Five as needed)	Proposed I/I improvements to begin under the WWTP NPDES Permit and with SRF monies.
17 Revised	Misc. Non-Structural BMPs as Needed	DPW	i.e. Bylaw Enforcement, Fees and Fines	None to date (scheduled for Permit Year Five as needed)	To be determined

**7a. Additions**

19	Pond Cleaning and De-Nitrification	DPW and Con. Comm.	Reduction of Invasive Species and Improved Water Quality	Chemical treatment of Vine Lake, Bakers Pond, Danielson Pond, Flynn's Pond and Tubitty Pond.	Chemical treatment
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## 7b. WLA Assessment

To date, the Town has focused on GIS mapping of the drainage system and priority receiving waters (i.e. the Charles River). Outfall pipes and catch basins have been 100% mapped and the connectivity of the system has been 100% mapped. The Town's focus is now on mapping its wastewater system that flows to the WWTP located on the Charles River. The coming year will see a focus on the completion of the wastewater system mapping, identification (thru SSES) and repair of I/I sources, and continued treatment of selected ponds. The Town will continue to conduct water testing as required under its NPDES permit at the WWTP. Additional, structural BMPs of the wastewater collection system (i.e. slip lining) will also be initiated with the implementation of I/I activities that will improve the functionality of the local WWTP that discharges into the Charles River under an existing NPDES permit. It is anticipated that the structural BMPs shall be paid for under the Massachusetts SRF Program.

#### **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.

As a result of the information collected to date, the Town will be focusing significant effort on structural BMPs and implementation of I/I activities that will improve the functionality of the local WWTP that discharges into the Charles River under an existing NPDES permit. It is anticipated that the structural BMPs will continue to be paid for under the Massachusetts SRF Program.

Chemical de-nitrification of Vine Lake, Bakers Pond, Danielson Pond, Flynn's Pond and Tubitty Pond will serve to improve the overall water quality and sustainability of these water resources. The local Conservation Commission is dedicated to setting funds aside each year to continue with this effort.

The Town continues the process of mapping its utility systems and has completed a third round of stenciling catch basins. The immediate focus of the water quality program is at the WWTP and its NPDES discharge to the Charles River.

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.