

TOWN OF DEDHAM
Commonwealth of Massachusetts

DAVID J. FIELD, P.E.
DIRECTOR OF ENGINEERING

JASON L. MAMMONE, P.E.
INFRASTRUCTURE ENGINEER



55 RIVER STREET
DEDHAM, MA 02026-2935

(781) 751-9350
FAX (781) 751-9359

www.dedham-ma.gov

DEPARTMENT OF INFRASTRUCTURE ENGINEERING

FACSIMILE TRANSMITTAL

TO: Ann Herrick, EPA

FROM: David J. Field, P.E., Director of Engineering

NPDES Phase II Small MS4 General Permit Annual Report

SUBJECT: MAR041033 – Dedham, MA

FAX NO.: (617) 918-0505

PAGES: 15 Including transmittal sheets

DATE: April 28, 2006

COMMENTS:

Please find attached a copy of the Annual Report for the Town of Dedham.

This is a confidential transmission meant for the addressee only. Please deliver at once. If you receive this transmittal by mistake please call (781) 751-9350 (collect) and let us know so that we can properly re-transmit. Please destroy any FAX received in error. Thank-you for your assistance.

TOWN OF DEDHAM
Commonwealth of Massachusetts

DAVID J. FIELD, P.E.
DIRECTOR OF ENGINEERING

JASON L. MAMMONE, P.E.
INFRASTRUCTURE ENGINEER



55 RIVER STREET
DEDHAM, MA 02026-2935

(781) 751-9350
FAX (781) 751-9359

www.dedham-ma.gov

DEPARTMENT OF INFRASTRUCTURE ENGINEERING

April 28, 2006

U. S. Environmental Protection Agency
Attn: Ms. Ann Herrick
Water Technical Unit
P.O. Box 8127
Boston, MA 02114

RE: NPDES Phase II Small MS4 General Permit Annual Report
MAR041033 – Dedham, MA

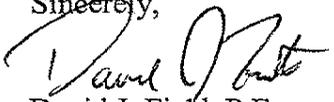
Dear Ms. Herrick:

In accordance with the reporting requirements for the NPDES Phase II Small MS4 Permit, please find enclosed a copy of the Annual Report for the Town of Dedham. As required a copy of the Annual Report has also been forwarded to the Massachusetts DEP.

The Town of Dedham has made minor modifications to several best management practices and has proposed the deletion and addition of other BMP's in an effort to better address comments made by the EPA, Conservation Law Foundation, Charles River Watershed Association, and the Neponset River Watershed Association.

If you have any question or comments, or if you require additional information, please do not hesitate to contact me at (781) 751-9350.

Sincerely,


David J. Field, P.E.
Director of Engineering

Enclosure

Cc: William G. Keegan, Jr., Town Administrator
Joseph M. Flanagan, Director of Public Works
Donald Yonika, Conservation Agent

Municipality/Organization: Town of Dedham

EPA NPDES Permit Number: MAR041033

MaDEP Transmittal Number: W- 040861

**Annual Report Number
& Reporting Period:** No. 3: March 2005-March 2006

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: David J. Field **Title:** Director of Engineering

Telephone #: (781) 751-9350 **Email:** dfield@dedham-ma.gov

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: William G. Keegan, Jr.

Title: Town Administrator

Date: 4/28/06

Part II. Self-Assessment

The Town of Dedham has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.

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
1a Revised	Establish an Advisory Committee	Town Administration	Form a Committee	No action	Form the Committee. Suggested members to include Town Administrator, Engineering, DPW, Conservation Agent,
1b Revised	Submit 2 press releases	DPW/Town Administration Town Administrator	Reach thousands of residents	No action	The Town will post (2) informational notices on stormwater. Potential topics include posting of Pet Waste signs and awareness, and on CB stenciling program.
1c Revised	Post article on town website	DPW/Town Administration Engineering	Reach thousands of web browsers	No action	The Town will post stormwater information on the Town web site
1d Revised	Add link to town website	DPW/Town Administration Engineering	Reach thousands of residents	The Town has maintained links to several environmental agencies and watershed groups on the Town's official website	Continue to maintain links as necessary, and create a stormwater page on Town's website.
1e Revised	Publish list of department names	DPW/Town Administration Town Administrator	Communicate with residents	The Town has maintained an updated list of Department head names, contact numbers, and email addresses.	Continue to maintain and update lists as necessary, and add contact information for specific stormwater questions or issues.
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
2a Revised	Develop stenciling program	DPW/Town Administration DPW	Educate hundreds of residents	No action	Continue stenciling program begun in Year 2. Stencil 100 catch basins and install permanent placards on major drainage projects.
2b Revised	Work with watershed groups	DPW/Town Administration Engineering	Coordinate efforts with others	No action	Work with watershed groups to obtain information/ideas for distribution or posting on Town website and help raise awareness of watershed group activities.
2c Revised	Post signs in critical resource areas	DPW/Town Administration Conservation Commission	Notify residents of critical areas	No action	Work with Conservation Commission to have developers post signs indicating resource areas as part of wetlands permitting.
2d Revised	Educate students about environment	DPW/Town Administration DPW	Involve students and families	No action	Involve student summer workers in stormwater projects such as catch basin stenciling.
2e Revised	Establish a suggestion box	DPW/Town Administration	Receive feedback	No action	This BMP is proposed to be discontinued and substituted with new BMP 2f
Revised					

2a. Additions

2f	Utilize DPW On-Line Service Request Form to solicit requests for trash/debris removal, street sweeping, etc.	DPW	Reduce the amount trash/debris and pollutants reaching receiving waters	No work proposed in Year 3	In addition to annual cleaning and street sweeping efforts, respond to requests by residents so that trash/debris can be pick-up before it makes its way into receiving waters.
----	--	-----	---	----------------------------	---

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
3a	Develop a mapping system	DPW	Map the drainage system	Overall mapping has been created previously. No action in year 3.	The Engineering Department will update and improve the existing drain and sewer mapping by verifying assumed structures improving connectivity issues.
Revised		Engineering			
3b	Locate all visible outfalls	DPW	Inventory outfalls	Outfalls have been located previously. No action in year 3.	The Engineering Department will update new outfalls installed and investigate assumed outfalls to determine exact locations and conditions using GPS.
Revised		Engineering			
3c	Adopt new stormwater bylaws	Town Administration	Enforcement of illegal environmental actions	Stormwater By-Laws and Stormwater regulations have been previously adopted. The Conservation Commission issued 80 permits.	Continue to enforce Stormwater Regulations
Revised					
3d	Develop a response plan	DPW/Town Administration	Emergency response measure	The Town began the process of updating the emergency response plan for the Town.	Incorporate additional provisions into the revised emergency response plan to mitigate potential environmental emergencies such as spills, etc.
Revised		Town Administrator	Develop an emergency response plan to contain spills		
3e	Adopt a hazardous waste day	DPW/Town Administration	Reduce illegal dumping of hazardous material	The Health Department hosted a hazardous waste collection day and collected approximately 6000 lbs. of waste	The Town will continue to conduct a yearly hazardous collection day.
Revised		Health			

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
4a Revised	Review existing state and local regulations	DPW/Engineering Department Engineering	Update the Town regulations	The Town has previously adopted a new stormwater by-law and stormwater regulation. The sewer by-law has been revised and approved at town meeting.	Evaluate all revised regulations to ensure that activities involving stormwater are regulated and illicit discharges and dumping is prohibited.
4b Revised	Develop town design and construction site review policy	DPW/Engineering Department Conservation Commission	Develop Town standards	The Conservation Commission has continued to enforce the stormwater regulations including the application of drainage design standards.	Continue the review of projects under the stormwater regulations.
4c Revised	Create town specifications	DPW/Engineering Department Engineering	Develop standard details and specifications	Town standard details, which include standard structural BMP's have been created and posted on the Town's website.	Continue to update or add standards as necessary.
4d Revised	Develop town inspection guidelines	DPW/Engineering Department Town Administrator	QA/QC construction sites Ensure that work that has been permitted is satisfactorily constructed	No action.	Develop a list of current parties responsible for inspections and evaluate the need for modification or additional inspections, as well as an analysis of the costs of performing additional inspections and identification of possible funding mechanisms.
4e Revised	Determine inspection responsibilities <i>To be deleted</i>	DPW/Town Administration	Establish means of inspection	No action	This BMP is proposed to be deleted as it is redundant with respects to BMP 4d.

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
5a Revised	Develop stormwater policy	Town Administration Conservation Commission	Encourage recharge	The Town has created stormwater regulations that strongly encourage recharge.	Continue to enforce existing regulations.
5b Revised	Develop standards for BMP's	DPW/Town Administration Conservation Commission	Regulate subdivision plans Regulate subdivision and site plans	The Town currently reviews subdivision and site plans for compliance with the stormwater regulations, and utilizes the Town Standard Details.	Continue to enforce existing regulations, and update or add details to Town Standard Details as necessary.
5c Revised	Develop bylaws and policy	DPW/Town Administration Engineering	Regulate subdivision runoff	No action.	Review and revise as necessary existing stormwater by-law and regulations to regulate post construction operation and maintenance of BMP's.
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
6a Revised	Implement pollution prevention program	DPW/Engineering Department DPW	Develop a program Identify ways to increase compliance	No action.	Review current municipal operations and develop a program to reduce pollution from municipal operations and increase compliance.
6b Revised	Develop TV inspection <i>To be discontinued</i>	DPW/Engineering Department	Eliminate illegal connections	The Town performed TV inspection on several hundred linear feet of storm drains in addition to the annual inspection of sewer lines.	This BMP is proposed to be discontinued; see new BMP 6f
6c Revised	Develop hazardous waste training	DPW/Engineering Department DPW	Train 20 employees on hazardous waste	No action.	Train DPW employees on hazardous waste and environmental issues relating to DPW operations.
6d Revised	Sweep all paved roads	DPW	Eliminate the dumping of 250 tons	The DPW swept main arterial roads every 3 days and all other roads twice per year through the annual street sweeping program.	Continue the annual street sweeping program.
6e Revised	Clean all catchbasins	DPW	Clean catchbasins every three years	The DPW estimates that it has cleaned approximately one third of the catch basins and over the past year. Exact numbers are not available.	Implement a GPS/GIS system to track the cleaning of catch basins, to better identify how many and which basins have been cleaned as well as rate of sediment buildup if possible.
6e Revised	Develop a litter management program	Town Administrator DPW	Eliminate dumping and pollution to catchbasins and water bodies	No action.	Post 10 signs in sensitive areas to help reduce pet waste and dumping.

6a. Additions

6f	Perform visual dry weather outfall inspections	Engineering	Identify illicit discharges to storm drains and outfalls	No action planned in year 3.	Perform visual dry weather inspections of outfalls giving priority to outfalls discharging to impaired waters. Determine the number of outfalls which are suspected of having illicit connections and the scope of work required to further identify the source(s).
----	--	-------------	--	------------------------------	---

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
7a Revised	Develop a landscaping policy	DPW/Town Administration DPW/Parks Department	Eliminate excessive chemicals	No action.	Evaluate and measure current municipal application rates for landscaping and make recommendation to reduce or substitute with environmentally sensitive products.
7b Revised	Develop a spill prevention plan <i>To be deleted</i>	DPW/Town Administration	Reduce spill prevention to rivers	No action.	This BMP is proposed to be deleted as it is redundant with respects to BMP 3d.
7c Revised	Develop a training program <i>To be deleted</i>	DPW/Town Administration	Educate 8 employees	No action.	This BMP is proposed to be deleted as it is redundant with respects to BMP 6c.
7d Revised	Install new drainage structures	DPW	Eliminate some TSS	The DPW replaced 47 substandard catch basins with new deep sump catch basins.	Install deep sump catch basins as needed and incorporate new basins into existing roadway reconstruction when possible.
7e Revised	Develop a housekeeping plan	DPW	Eliminate excessive TSS Construct new salt shed to replace current uncovered salt storage	Funding for construction and preliminary design has been completed.	Construct new salt shed prior to winter season.

7a. Additions

--	--	--	--	--	--

7b. WLA Assessment

The Town of Dedham has not yet implemented controls at this point in the permit process that would significantly impact the waste load allocation.

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures	(\$)	\$0

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	Unknown
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	N
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	Unknown
▪ material collected	(tons or gal)	3 tons
School curricula implemented	(y/n)	N

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				X
▪ Post-Development Stormwater Management		X		

Mapping and Illicit Discharges

Outfall mapping complete	(%)	95%
Estimated or actual number of outfalls	(#)	304
System-Wide mapping complete	(%)	95%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	0
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	93%
% of population on septic systems	(%)	7%

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)	.33/year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	.33/year
Total number of structures cleaned	(#)	Unknown
Storm drain cleaned	(LF or mi.)	2000 LF
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.)		Beneficial use or landfill
Cost of screenings disposal	(\$)	\$110,000

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	2
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	Every 3 days
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Beneficial use/landfill
Cost of sweepings disposal	(\$)	\$90,000
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N/A

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

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	95% 5%
Pre-wetting techniques utilized	(y/n)	N
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 %)	0
Salt pile(s) covered in storage shed(s)	(y/n)	N
Storage shed(s) in design or under construction	(y/n)	Y