TOWN OF DEDHAM

Commonwealth of Massachusetts

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

JASON L. MAMMONE, P.E.
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55 RIVER STREET
DEDHAM, MA 02026-2935

(781) 751-9350
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DEPARTMENT OF INFRASTRUCTURE ENGINEERING

April 30, 2007

Ann Herrick
U. S. Environmental Protection Agency
1 Congress Street, Suite 1100 (CIP)
Boston, MA 02114-2023

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.

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

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DEPARTMENT OF INFRASTRUCTURE ENGINEERING

April 30, 2007

Mr. Fredrick Civian
Massachusetts Department of Environmental Protection
One Winter Street – 5th Floor
Boston, MA 02108

RE: NPDES Phase II Small MS4 General Permit Annual Report
W-040861 – Dedham, MA

Dear Mr. Civian:

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 EPA.

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
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Municipality/Organization: **Town of Dedham**

EPA NPDES Permit Number: **MAR041033**

MaDEP Transmittal Number: **W- 040861**

Annual Report Number & Reporting Period: **April 1, 2006 – March 31, 2007**

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: 4/29/07

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1a	Establish an Advisory Committee	Town Administration	Form a Committee	The Town Administrator has discussed the formation of the committee with applicable department heads. No official meeting has yet been scheduled.	Officially form the Committee and begin meetings. Suggested members to include Town Administrator, Engineering, DPW, Conservation Agent, and Health Agent.
1b	Submit 2 press releases	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	Post article on town website	Engineering	Reach thousands of web browsers	The Town posted information about the current General Permit and the previous year's annual reports.	The Town will continue to post informational notices and articles on the website.
1d	Add link to town website	Engineering	Reach thousands of residents	The Town created a stormwater page on the official Town Website and posted regulations and educational brochures and notices. The Town has also maintained links to several environmental agencies and watershed groups on the Town's official website	Continue to maintain links as necessary, and add additional content to the webpage.
1e	Publish list of department names	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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
2a	Develop stenciling program	DPW	Educate hundreds of residents	Installed approximately 50 permanent placards on the East Street project. ("Don't Dump – Drains to Neponset River")	Continue stenciling program begun in Year 2. Stencil 100 catch basins and install permanent placards on major drainage projects.
2b	Work with watershed groups	Engineering	Coordinate efforts with others	Met with Neponset River Watershed Association about mutual goals and activities. Committed to supporting EPA Targeted Watersheds Grant Program through funding and involvement.	Continue to work with watershed groups to aid in grant programs and raise awareness of watershed group activities.
2c	Post signs in critical resource areas	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	Educate students about environment	DPW	Involve students and families	Engineering and DPW participated in annual student government day and stressed issues related to Stormwater to student leaders.	Continue to participate in student government day and involve student summer workers in stormwater projects such as catch basin stenciling.
2e Deleted	~~Establish a suggestion box~~	~~DPW/Town Administration~~	~~Receive feedback~~	NA	*This BMP was discontinued and substituted with BMP 2f*
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	Received and responded to hundreds of requests from residents for trash/debris removal and street sweeping using on-line request form. (Note: Exact number unknown due to change in vendor)	Continue to solicit and respond to requests by residents so that trash/debris can be picked-up before it makes its way into receiving waters.

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
3a	Develop a mapping system	Engineering	Map the drainage system	Overall mapping was created previously. Minor updates performed as necessary to improve system or add structures as needed.	The Engineering Department will continue to update and improve the existing drain and sewer mapping by verifying assumed structures improving connectivity issues.
3b	Locate all visible outfalls	Engineering	Inventory outfalls	Additional inspection and GPS location were performed in conjunction with dry weather testing (BMP 3f)	The Engineering Department will continue to update new outfalls installed and investigate assumed outfalls to determine exact locations and conditions using GPS.
3c Revised	Adopt new stormwater bylaws	Town Administration	Enforcement of illegal environmental actions	Stormwater By-Laws and Stormwater regulations have been previously adopted. The Engineering has drafted a revision to the existing stormwater by-law to address illicit discharges.	Work with Conservation Commission to revise draft by-law and submit to Town Meeting for approval.
3d	Develop a response plan	Town Administrator	Develop an emergency response plan to contain spills	The Town is in 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.
3e	Adopt a hazardous waste day	Health	Reduce illegal dumping of hazardous material	The Health Department hosted a hazardous waste collection day and collected approximately 1,100 gallons of waste	The Town will continue to conduct a yearly hazardous collection day.

3a. Additions

3f	Perform dry weather testing of outfalls *Formerly BMP 6f*	Engineering	Identify illicit discharges	Pilot inspections of 10 outfalls were performed. No illicit discharges were discovered.	Continue performing dry weather testing on critical outfalls. (Year 5 goal 50 inspections)

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
4a	Review existing state and local regulations	Engineering	Update the Town regulations	The Town has previously adopted a stormwater by-law and stormwater regulations. The sewer by-law has been revised and approved at town meeting.	No activity planned.
4b	Develop town design and construction site review policy	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	Create town specifications	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	Develop town inspection guidelines	Town Administrator	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 Deleted	~~Determine inspection responsibilities~~	~~DPW/Town Administration~~	~~Establish means of inspection~~	~~No action~~	*This BMP has been 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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5a	Develop stormwater policy	Conservation Commission	Encourage recharge	The Town has created stormwater regulations that strongly encourage recharge.	Continue to enforce existing regulations.
5b	Develop standards for BMP's	Conservation Commission	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	Develop bylaws and policy	Engineering	Regulate new development runoff	The Engineering has drafted a revision to the existing stormwater by-law to address post construction operation and maintenance of BMP's.	Work with Conservation Commission to revise draft by-law and submit to Town Meeting for approval.
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6a	Implement pollution prevention program	DPW	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 Deleted	~~Develop TV inspection~~	~~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 was discontinued; see new BMP 3f*
6c	Develop hazardous waste training	DPW	Train 20 employees on hazardous waste	No action.	Train DPW employees on hazardous waste and environmental issues relating to DPW operations.
6d	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	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	Develop a litter management program	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).~~
	Replaced by BMP 3f				

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
7a	Develop a landscaping policy	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~~ Deleted	~~Develop a spill prevention plan~~	~~DPW/Town Administration~~	~~Reduce spill prevention to rivers~~	~~No action.~~	*This BMP was deleted as it was redundant with respects to BMP 3d.*
~~7c~~ Deleted	~~Develop a training program~~	~~DPW/Town Administration~~	~~Educate 8 employees~~	~~No action.~~	*This BMP was deleted as it was redundant with respects to BMP 6c.*
7d	Install new drainage structures	DPW	Eliminate some TSS	The DPW replaced/installed over 60 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	Develop a housekeeping plan	DPW	Construct new salt shed to replace current uncovered salt storage	Construction of the Salt Shed was completed in November 2006.	No activity planned.

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)
(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2006 through March 31, 2007)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures **	($)	$0
Total program expenditures since beginning of permit coverage	($)	$0
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		NA

Education, Involvement, and Training

Estimated number of property owners 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
Shoreline cleaned since beginning of permit coverage	(mi.)	0
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	200 Residents
▪ material collected **	(tons or gal)	1,100 gallons
School curricula implemented	(y/n)	N

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	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

	(Preferred Units)	Response
Outfall mapping complete	(%)	99%
Estimated or actual number of outfalls	(#)	324
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	99%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	10
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	10
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	93%
% of population on septic systems	(%)	7%

Construction

	(Preferred Units)	Response
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 (for proper BMP installation & operation) completed **	(# or %)	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	N
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1/3 per year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1/3 per year
Qty of structures cleaned **	(#)	Unknown
Qty. of storm drain cleaned **	(%, LF or mi.)	2,500 LF
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	Unknown
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Beneficial Use

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	
• Hourly or per basin contract rate **	($/hr or $ per basin)	N/A
• Disposal cost**	($)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	Y
• % Structures cleaned with clam shells **	(%)	95%
• % Structures cleaned with vactor **	(%)	5%

	(Preferred Units)	Response
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)	Unknown
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Beneficial Use
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	
• Disposal cost**	($)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	2
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	N
• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	0
▪ Pesticides	(lbs. or %)	0
Integrated Pest Management (IPM) Practices Implemented	(y/n)	N

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	95% 5%
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	