

Municipality/Organization: Town of Bedford, Massachusetts

EPA NPDES Permit Number: MAR 041028

MassDEP Transmittal Number: W-132333

**Annual Report Number
& Reporting Period:** April 1, 2007 – March 31, 2008

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5/1/08

**NPDES PII Small MS4 General Permit
Annual Report
(Due: May 1, 2007)**

Part I. General Information

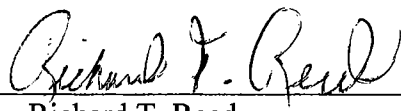
Contact Person: Adrienne St. John **Title:** Public Works Engineer

Telephone #: (781) 275-7605 **Email:** adrienne@town.bedford.ma.us

Mailing Address: 314 Great Road Bedford, MA 01730

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: Richard T. Reed

Title: Town Manager

Date: April 30, 2008

Part II. Self-Assessment

Part 1.B.2(e)vi The Town is aware of the new Endangered and Threatened Species list, but has not yet determined if any of the Town discharges have a negative effect on the species.

The Town is collecting information to document vernal pools, targeting locations adjacent to roadways and drainage outfalls.

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
1-1 Revised	Residential Flyer	DPW/SuAsCo	Distribute to 75% of homes	Flyer available at public information sites; given to new residents who missed first distribution	Mail out new SuAsCo Year 5 “Stormwater Matters” postcards to residents
1-2 Revised	Education Program	DPW/SuAsCo	Teach in 5 th grade	Elementary school has “outdoor classroom” where kids learn about stormwater maintenance system (wet pond) and the effect of stormwater runoff on a natural habitat	Distribute new “Stormwater Matters” posters to 2 elementary schools
1-3 Revised	Develop web site	DPW	Have in place by 7/05	Continued to add information, EPA links, helpful tips	Implement new web site to show Town/DEP wetlands, perennial/intermittent streams, detention ponds
1-4 Revised	Stormwater flyer to businesses	DPW/SuAsCo	Distribute to 50%	Flyer sent to local businesses	Reinforce information with new SuAsCo products
1-5 Revised	Stormwater video	DPW	Show video on local cable station	Video shown bi-weekly at various time slots on local cable station.	New SuAsCo Year 5 product has Cable TV series – send to local station to show at various times
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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
2-1 Revised	Stormwater Display	DPW/SuAsCo	3 mos. at library, Town Hall, Schools	New Stormwater banner hung at DPW, original posters shown at public events, meetings, Town Hall. Stenciled 150 catch basins in West Bedford	Display new SuAsCo posters, continue to mark catch basins to remind public not to dump
2-2 Revised	Local Stormwater Committee	Selectmen, DPW ConsCom, Planning	Form committee by 12/04	New Committee members chosen to represent town agencies and citizen input	If interest shown, expand membership
2-3 Revised	Stormwater meetings	DPW/SW Committee	Meet 3x/year	Monthly updates to Town staff meetings and Selectmen. Designed work order management system to address citizen complaints and follow up with mapping problem areas	Implement work order system via phone; may be added as an on-line complaint system
Revised					
Revised					
Revised					

2a. Additions

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3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
3-2 Revised	Map SW outlets	DPW	75% capture rate	Continued to map outlets (182 GPS'd in Year 5), digitized As-Built drawings, stenciled 150 catch basins. Walked sections of dry riverbeds in fall 07 at bridge crossings to note any stormwater/erosion impacts.	Continue to GPS, estimate 130 outlets left to monitor
3-3 Revised	Identify critical resources	DPW, ConsComm	Map, notify abutters, develop BMP	Assisted with Scouts and community groups of clean up of trash & debris on public properties. Notified residents in 3 neighborhoods adjacent to Shawsheen River of new rain garden design & purpose	Construct 3 rain gardens to eliminate direct discharge to Shawsheen River
3-4 Revised	Perform water quality testing	DPW	3 sites – residential, municipal, commercial	1 outlet found with potential water quality issue	Return to site and sample
3-5 Revised	Local bylaw – illicit discharges	DPW/Selectmen, Planning	In place by 7/06	Draft bylaw written	Have adopted at Town Meeting
Revised					
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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
4-1 Revised	Develop awareness of construction site issues	DPW, Code, ConsComm	Write guidelines, distribute to builders	Require Erosion and Sed. Control measures in place for site plan and subdivision projects. Require stone on construction entrances, require infiltration of roof runoff. Use and promote hydro-excavations. Provided EPA pamphlet “Does Your Construction Site Need a Stormwater Permit?” to contractors coming in for other permits.	Continue. Show “Storm Watch” DVD to DPW labor force to explain Municipal Stormwater Pollution Prevention
4-2 Revised	Control construction site waste	DPW, Code, ConsComm.	Reduce litter, erosion, dust, sediment	Require weekly trench paving on utility and road projects. Perform regular inspections on construction projects.	Continue to monitor construction projects.
4-3 Revised	ESC plans for disturbances > 5,000s.f.	Code, DPW, ConsComm.	Draft bylaw by 7/07	Tree protection and silt sacks now required on all site plans and subdivision lots.	Continue
Revised					
Revised					

4a. Additions

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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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
5-1	Develop bylaw to address stormwater impacts	Selectmen, Planning, DPW, Cons. SW Comm.	In place by 12/05	Draft bylaw and regulations written	Adopt at Annual Town Meeting
Revised					
5-2	Promote infiltration	Planning, DPW, Code, ConsComm	No increase in flood levels or locations	Require gutters and downspouts on all new structures. Recommending rain gardens, bioretention design on site plan reviews. DPW built rain garden in front of Town Hall to promote concept.	Continue
Revised					
5-3	Expand grass plots, reduce pavement widths	DPW, Planning	Improve infiltration	Recommend LID techniques during site plan and subdivision reviews. Allow reduced pavement width on some smaller housing projects. Researched Filterra® tree pits and reinforced turf in parking areas/access drives	Construct rain gardens in existing cul-de-sacs to reduce impervious.
Revised					
5-4	Research rain barrels	DPW	Distribute to 10 households for pilot program	No progress – summer 07 too dry for pilot program	Reevaluate
Revised					
Revised					
Revised					

5a. Additions

	Keep current with regulations	Cons. Comm. Planning Board, DPW		Had Horsley & Witten consultant present new DEP Stormwater Regulations to Conservation Commission and DPW.	Present information to Bedford Planning Board
	Organize local stormwater permits	Cons. Comm., DPW		Gathered all site Order of Conditions and stormwater management plans from the past 10 years to follow up with on-going stormwater requirements for maintenance and reporting.	Implement notification system to remind property owners of requirements and ensure maintenance is being done and reports are filed.

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
6-1 Revised	Street sweeping, CB cleaning	DPW	2x per year in critical areas	Continued program. Swept all 80 miles of roadways. Great Road (local commercial area) and municipal properties swept 12 times in year 5.	Continue to reduce amount of sand used during snow and ice operations.
6-2 Revised	Inspect older sewer mains	DPW, MWRA	TV 1 mile per year	Inspected approx. 12,000 l.f. of clay and AC sewer lines. Repaired 257 l.f. of sewer main, replaced 8-foot section of 4" sewer force main. Removed 130,000 gpd of I/I from sewer system.	Repair identified problems.
6-3 Revised	Promote/use alternative fertilizers & pesticides	DPW, ConsComm	Reduce nitrogen loading	DPW using fertilizer on an as-needed basis only. Cons. Comm requiring no-salt areas, no herbicides and no blanket fertilizers on projects.	Continue
6-4 Revised	Develop spill prevention plan	DPW, Fire, DEP	Purchase spill control equipment	In place	Regularly check inventory
6-5 Revised	Site better snow dump	DPW	Locate site by 12/05	Site located at middle school ball field; not needed in 2007	
Revised					

6a. Additions

				Added 2 more Saturdays for public to bring yard waste to municipal compost site. Keeps residents from dumping in wetlands or on Town properties	Continue as needed.
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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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

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					
Accompanying Regulation Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination				x	
▪ Erosion & Sediment Control	x				
▪ Post-Development Stormwater Management					

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	75
Estimated or actual number of outfalls	(#)	534
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	90
Mapping method(s)		
▪ Paper/Mylar	(%)	10
▪ CADD	(%)	5
▪ GIS	(%)	85
Outfalls inspected/screened **	(# or %)	182
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	405
Illicit discharges identified **	(#)	1
Illicit discharges identified (Since beginning of permit coverage)	(#)	1
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) **	(#)	7
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100
Site inspections completed **	(# or %)	200
Tickets/Stop work orders issued **	(# or %)	1
Fines collected **	(# and \$)	0
Complaints/concerns received from public **	(#)	3 events

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	75
Site inspections (for proper BMP installation & operation) completed **	(# or %)	20
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
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
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	2
Qty of structures cleaned **	(#)	1600
Qty. of storm drain cleaned **	(%, LF or mi.)	800 lf
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	30 ton
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Compost

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$24,000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$8.85/basin
• Disposal cost**	(\$)	\$15,000
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	0
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	n
• % Structures cleaned with clam shells **	(%)	95%
• % Structures cleaned with vector **	(%)	5%

	(Preferred Units)	Response
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)	12
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	400 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Compost
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$18,000
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	\$84.75/hr
• Disposal cost**	(\$)	\$25,000
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• 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 %)	25%
▪ Herbicides	(lbs. or %)	N/A
▪ Pesticides	(lbs. or %)	25%
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y

	(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	70% 10% 20%
Pre-wetting techniques utilized **	(y/n or %)	y
Manual control spreaders used **	(y/n or %)	y
Zero-velocity spreaders used **	(y/n or %)	y
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	+ 25%
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	-25%
% 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	1 planned
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	n



Enter your transmittal number

W132333

Transmittal Number

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml or call MassDEP's InfoLine at 617-338-2255 or 800-462-0444 (from 508, 781, and 978 area codes).

Massachusetts Department of Environmental Protection
Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. Copy 2 must accompany your fee payment. Copy 3 should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

* Note: For BWSC Permits, enter the LSP.

A. Permit Information

BRP WM 08A

NPDES Stormwater General Permit

1. Permit Code: 7 or 8 character code from permit instructions

2. Name of Permit Category

Year 5 Report

3. Type of Project or Activity

B. Applicant Information - Firm or Individual

Town of Bedford

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. Last Name of Individual

3. First Name of Individual

4. MI

314 The Great Road

5. Street Address

Bedford

MA

01730

781 275-7605

111

6. City/Town

7. State

8. Zip Code

9. Telephone #

10. Ext. #

Adrienne St. John

adrienne@town.bedford.ma.us

11. Contact Person

12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

Town of Bedford

1. Name of Facility, Site Or Individual

314 Great Road

2. Street Address

Bedford

MA

01730

781 275-7605

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

046001083

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

1. Name of Firm Or Individual

2. Address

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? [] yes [X] no
If yes, enter the project's EOE file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Special Provisions:

- 1. [X] Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less). There are no fee exemptions for BWSC permits, regardless of applicant status.
2. [] Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. [] Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. [] Homeowner (according to 310 CMR 4.02).

Permit No:

Rec'd Date:

Reviewer:

Check Number

Dollar Amount

Date