Municipality/Organization: **TOWN OF BEDFORD**

EPA NPDES Permit Number: **MA 041028**

MaDEP Transmittal Number: **W-079978**

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

MAY - 7

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

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

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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: Richard T. Reed

Printed Name: Richard T. Reed

Title: Town Manager

Date: April 28, 2006

Part II. Self-Assessment

Part 1.B.2(e)vi	**The Town of Bedford has researched the most recent Endangered and Threatened Species list and found 20 species to be present in the Town. The effects of the Town's discharges has not been determined at this time.**
Part I.B.2(k)(l)	**The Town is performing water quality testing to identify sources and the extent of bacteria at sites along the Shawsheen 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
1-1	Residential Flyer	DPW/SuAsCo	Distribute to 75% of residents	Flyer produced and sent out to 95% of residents. Flyer displayed at Bedford Day and also distributed to Town Clerk and Conservation Commission. PDF placed on web-site.	Continue to distribute/display as needed.
Revised					
1-2	Education Program	DPW/SuAsCo	Teach in 5th grade class	N/A	Teach in class.
Revised					
1-3	Develop web site link	DPW	Have in place by 7/05	Web site in place.	Continue to add information/update web site.
Revised					
1-4	Stormwater Flyer to Businesses	DPW, SuAsCo, Chamber of Commerce	Distribute to 50% of businesses	Targeted 33% of gas stations to discuss pollution prevention.	Continue targeted approach of businesses and discussing pollution prevention
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
2-1	Stormwater Display	DPW	3 months at library, Town Hall, schools	Displayed at Hartwell Forest Conservation Area, DPW, Bedford Day, Town Meeting	Continue displaying.
Revised					
2-2	Local Stormwater Committee	DPW	Form by 12/04	Existing Drainage Committee expands focus to include stormwater quality.	Expand membership.
Revised					
2-3	Stormwater Meetings	DPW/SW Committee	Meet 3x/year	N/A	Convene three times.
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
3-2	Map SW outlets > 6"	DPW, MRWC	75% capture rate	Continue (127 outlets mapped)	Continue
Revised					
3-3	Identify critical resources	DPW, Con Com	Map, notify abutters, develop BMPs	Targeted abutters to Hartwell Forest to stop illegal dumping of brush, debris. Notified them of approved site.	Continue
Revised					
3-4	Perform water quality testing	DPW, MRWC	3 sites—residential, municipal, commercial, industrial	Conducted dry weather E. Coli and fecal coliform testing at two residential drainage outlets, one river sample on Elm Brook, one sample on Shawsheen River	Continue targeted testing of hotspots
Revised					
Revised					
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
4-1	Develop awareness of construction site issues	DPW, Con Com, Code Enf.	Write guidelines, distribute to all builders with a permit	Require Erosion and Sediment Control plans during Site Plan review, Con Com review. Require stone entrances on single family home construction sites.	Develop guidelines
Revised					
4-2	Control construction site waste	DPW, Con Com, Code Enf.	Reduce litter, erosion, dust, sediment	DPW requires weekly trench paving of disturbed areas of utility/road projects. Worked with Con Com to control erosion at Freedom Estates subdivision. Performed site inspections at other construction sites within town.	Continue to monitor construction projects
Revised					
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
5-1	Develop stormwater bylaw	Selectmen, Planning, Cons., DPW	In place by 12/05	DPW staff attended additional trainings including information on stormwater bylaws	Develop by-law
Revised					
5-2	Promote infiltration	Planning, DPW, Con Com	No increase in flooding levels or locations	Recommend improvements to site plans encouraging use of infiltration. Require gutters, downspouts, and infiltrators on single family homes.	Continue
Revised					
5-3	Expand grass plots, reduce pavement widths	DPW, planning, SW committee	Improve infiltration	Recommend low impact development techniques during Site Plan and Con Com review.	Continue
Revised					
5-4	Research rain barrels	SW Committee	Distribute to 10 households for pilot program	N/A—lack of rain during summer '05.	Implement Summer '06
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
6-1	Street Sweeping, CB Cleaning	DPW	2 x per year in critical areas	Continued program. Swept all 80 miles of roadways. Commercial area swept 6 times per year.	Continue.
Revised					
6-2	Inspect older sewer mains	DPW, MWRA	TV 1 mile per year	Approximately 60,000 LF inspected.	Repair identified problems.
Revised					
6-3	Promote/use alternative fertilizers and pesticides	Con. Com, DPW	Reduce nitrogen loading	Using fertilizer on as-needed basis only.	Continue
Revised					
6-5	Site better snow dump	DPW, Con Com.	Locate by 12/05	Site is located on Springs Road near the VA Hospital.	
Revised					
Revised					
Revised					

6a. Additions

Part IV. Summary of Information Collected and Analyzed

Results of dry weather E. Coli and fecal coliform testing:

	Fecal Coliform per 100mL	E. Coli per 100mL
12" outlet behind #1 Washington Street	<4	<2
12" outlet behind #11 Washington Street	<4	<2
Elm Brook near #1 Washington Street	92	84
Shawsheen River at Page Road	1160	205

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures	($)	$10,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	95%
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	Supported
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	700 ft
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	8
▪ community participation	(%)	10
▪ material collected	(tons or gal)	400

School curricula implemented	(y/n)	No

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

Mapping and Illicit Discharges

Outfall mapping complete	(%)	50
Estimated or actual number of outfalls	(#)	250
System-Wide mapping complete	(%)	75
Mapping method(s)		
▪ Paper/Mylar	(%)	15
▪ CADD	(%)	10
▪ GIS	(%)	75
Outfalls inspected/screened	(# or %)	40
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	92
% of population on septic systems	(%)	8

Construction

Number of construction starts (>1-acre)	(#)	8
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100
Site inspections completed	(# or %)	300
Tickets/Stop work orders issued	(# or %)	1
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	2

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	90
Site inspections completed	(# or %)	20
Estimated volume of stormwater recharged	(gpy)	600,000

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
Total number of structures cleaned	(#)	1600
Storm drain cleaned	(LF or mi.)	1500 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	40 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Compost
Cost of screenings disposal	($)	$15,000

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)	2

Qty. of sand/debris collected by sweeping	(lbs. or tons)	600 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost
Cost of sweepings disposal	($)	$28,000
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N

Reduction 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%

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	45% 5% 50%
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	0
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N