Municipality/Organization: **Town of Bedford, NH**

EPA NPDES Permit Number: **NHR041036**

MassDEP Transmittal Number: **N/A**

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

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

Part I. General Information

Contact Person: James Stanford, P.E. Title: Director of Public Works

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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:

Printed Name: James Stanford

Title: Director of Public Works

Date: 4-27-07

Part II. Self-Assessment

Part I.B.2(e)(vi) The Town of Bedford, NH permit eligibility with regard to the Endangered Species Act was pending at the time of our NOI submission. At this point the Town has not completed our town-wide system mapping and this item is still pending. Mapping will be fully completed during year 5 of the permit.

The May 2006 flooding in this region made it very difficult to conduct dry weather flow inspections in that much of our efforts were spent repairing damage that occurred. Our efforts to convert paper maps to our GIS were also slowed by the unexpected work from flooding.

Our active participation with the stormwater group continues to be an important part of our program. A great deal of information and ideas have been shared among the participating communities. The regional planning commission is now involved with the group and we are moving forward with a public meeting this fall.

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
1-1	Maintain storm water Info and links on Town of Bedford website	DPW/ J. Stanford	Review and update each year; add reference links to NHDES storm water site	Related links are under the Public Works portion of the web-page.	Update links as necessary
Revised					
1-2	Publish info on storm-water program and practices in local newspapers	DPW/ J. Stanford	Publish articles each year in town bulletin and local newspapers	Quarterly Newspaper is sent to all residents. General stormwater and NPDES PH II information as well as public participation was discussed.	Will continue related articles in 2007 publication.
Revised			New quarterly publication was in place for Spring 2007		
1-3	Broadcast Public meetings (see BMP 2-2)	DPW/ J. Stanford	1 meeting per year	The group meets every 2 months to share information, but these meetings have not been broadcasted. Permit requirements were discussed several times and broadcasted at PB meetings.	Continue discussions during Planning Board meetings: Include BMP 1-4
Revised					
1-4					
Revised					

1a. Additions

1-4	Annual Town Fair (Springfest) – display maintenance equipment and handout stormwater related materials	DPW/ J. Stanford	1 time each year in late spring	Equipment was on display and publications and handouts were distributed.	Continue with display – distribute materials.

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
2-1	Conduct public meetings on storm water program and solicit public feedback	DPW/ J. Stanford	Conduct 4 meetings over the 5-year permit term	Worked on developing a program among the communities within our stormwater group.	This fall, in coordination with SNHPC, a public forum is being scheduled.
Revised			Conduct 2 meetings between year 4 and 5		
2-2	Establish a storm water management group to oversee the storm water management program	DPW/ J. Stanford	Establish group of volunteers during the first 2 years – include residents on group	The Stormwater group has been established with several other communities in Southern NH. We met approx. once every two months to discuss storm water issues and share ideas on the program.	Continue participation with group.
Revised			Residents have not been included in the group as of yet		
Revised					
Revised					

2a. Additions

2-3	Purchase hybrid vehicles	DPW/ J. Stanford	Replace old gas vehicles with new electric hybrids	Maintained hybrid vehicles.	Continue maintenance of vehicles.
2-4	Help with local groups in trash pick-up program	DPW/P. Belanger	Provide bags and pickup of trash for town clean-up days	Provided bags and trash pick-up with community groups. Also provided town-wide roadside clean-up with contracted staff - twice a year.	Continue participation with local groups.

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
3-1	Map storm water drainage system and outfalls	DPW/ J. Stanford	Complete mapping by end of 5 year permit term	Continued to collect all existing map data on drainage systems. Aerial and base mapping completed and paper map conversion began	Expect to have all outfalls identified by end of permit year.
Revised					
3-2	Maintain map database on GIS system	DPW/ J. Stanford	Complete with system mapping (BMP 3-1)	System data collection continued this past year.	Maintenance will be ongoing as data is received.
Revised					
3-3	Visually inspect outfalls for dry weather flows	DPW/P. Belanger	Inspect a representative number of outfalls each year. Complete inspection of all outfalls by the end of 5 year permit term.	DPW continued to inspect outfalls this past year. To date only 1 illicit connection has been detected and eliminated.	Continue with Inventory and perform inspections.
Revised					
3-4	Implement a sampling and analysis program for dry weather flows	DPW/ J. Stanford	Sample any outfalls identified with dry weather flows under BMP 3-3 above. Complete sampling at identified outfalls as budget permits.	No sampling was done during permit year 4.	Monitor outfalls and test any flows that are detected.
Revised					
3-5	Train DPW personnel to recognize illicit discharge	DPW/P. Belanger	Annual training to include information on recognizing and reducing illicit discharges	Conducted training sessions for Public Works employees.	Continue training with additional storm water topics.
Revised			Training began in summer 2004		
3-6	Review and update Town bylaws and regulations to include illicit discharge ordinance	DPW/ J. Stanford	Years 1 and 2 – review existing ordinances	Existing regulations are already in place. Review of projects includes stormwater maintenance and incorporation of BMPs. Projects are required to annually report stormwater maintenance activities to Town/PW	Continue with comprehensive review process.
Revised			Conduct numerous discussions with Planning Board		

3a. Additions - None

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
4-1	Storm water impact and design review process	Planning Board/K. White	Continue current new-construction review process involving all appropriate departments	Reviewed new subdivision and site plans for storm water impact. Requested major and minor design changes to control development storm water discharge.	Continue design review process
Revised					
4-2	Visually inspect construction sites for proper erosion control measures	Planning Board/K. White	Continue to inspect sites, record inspections and track violations	Inspected construction sites. Submitted information to owners and contractors about design storm water control measures. This past year there were only minor deficiencies found.	Continue with inspection process
Revised					
4-3	Construction Site Runoff Control	Planning Board/J. Stanford	Review existing regulations to require sediment and erosion control measures on construction sites	Existing regulations are in place. Developments were not allowed to proceed with construction until control measures were satisfactorily in place.	Continue with updating regulations/policies as needed.
Revised					
Revised					
Revised					
Revised					

4a. Additions - None

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
5-1	Conduct storm water impact and design review process (in conjunction with BMP 4-1)	Planning Board/K. White	Continue current review process involving all appropriate departments	Continued design review meetings with Town Personnel approx. every two weeks.	Continue review process
Revised					
5-2	Review and update Town bylaws and regulations regarding post construction storm water management provisions	Planning Board/K. White	Years 1 and 2 – review existing ordinances	Sample ordinances have been proposed in stormwater group communities. Group reviewed proposed regulations and continued to comment on proposed changes.	Continue with regulation /policy update implementation as needed.
Revised			Continue review and discussions with stormwater group		
Revised					
Revised					
Revised					
Revised					

5a. Additions - None

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
6-1	Street Sweeping	DPW/P. Belanger	Continue to sweep selected streets annually and increase frequency of sweeping as budget allows	Swept approximately 25% of Town owned streets.	Continue with program
Revised			Maintain volume records of material collected.		
6-2	Catch Basin cleaning	DPW/P. Belanger	Continue to clean catch basins annually and as needed in areas of high flooding.	Performed catch basin cleaning on ¾ of town-owned catch basins. Also performed street swale maintenance and cleaning.	Continue with program
Revised			Maintain volume records of material cleaned from catch basins and swales.		
6-3	Collect household hazardous waste	DPW/S. Crean	Continue hazardous waste collection days at the transfer station	Conducted 1 hazardous Waste collection day at the Town Transfer Station.	Conduct 1 household hazardous waste collection day – Scheduled for May 5, 2007
Revised			Funding will only allow conducting 1 special collection day this year		
6-4	Collect yard waste	DPW/S. Crean	Continue yard waste drop off at transfer station	Yard waste drop off was in operation throughout the year.	Continue with drop off program
Revised					
6-5	Maintain the storm water management program	DPW/J. Stanford	Maintain written program summary; update as necessary; submit reports annually in accordance with the permit	Tracked annual performance. Completed annual update in compliance with Permit.	Continue with tracking and compliance.
Revised					
6-6	Implement Storm Water Pollution Prevention Plan for DPW garage and transfer station	DPW/ J. Stanford	Maintain plan at each facility	Minor short-time site improvements were made to the transfer station site. Several areas have been cleaned of debris to avoid trash, etc from uncontrolled runoff.	Continue with additional minor improvements
Revised			Inspected each site for any deficiencies.		

6-7	Develop and implement training program for proper installation of erosion control barriers	DPW/ J. Stanford	Review existing procedures	Training for highway personnel was conducted.	Include training materials with our program outlined in BMP 3-5

6a. Additions

6-8	Constructed new shed for storage of road salt	DPW/ J. Stanford	Reduce amount of salt that is washed off-site.	Salt shed was in full operation. All winter loading of salt was done under cover of the new shed.	Continue with operation as discussed.
Revised			Continue to maintain salt shed		

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
7-1	Monitor and sample discharges to impaired water ways	DPW/ J. Stanford	Monitor discharges and collect samples of discharges to impaired waters as budget allows	Determination of outfalls to impaired waters is still ongoing and will be completed by end of permit year 5. No samples were collected this past year.	Continue mapping and converting data to Town GIS.
Revised					
Revised					
Revised					

7a. Additions - None

7b. WLA Assessment

Determination of discharges to impaired waters has not been completed as of yet. Upon completion of outfall mapping, determinations will be made.

Part IV. Summary of Information Collected and Analyzed

Additional mapping was done in permit year 4. The program continues to benefit by our participation in the storm water group created with other southern New Hampshire communities. Although the permit covers individual municipalities, the group continues to approach stormwater from a regional perspective.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	no
Annual program budget/expenditures	($)	$5,000
amount represents outside consulting help and does not reflect actual implementation of programs		
(help was requested for GIS mapping)		

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	10 %
Stormwater management committee established	(y/n)	yes
Stream teams established or supported	(# or y/n)	no
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	N/A
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1 day
▪ community participation	(%)	1%
▪ material collected	(tons or gal)	1500 gal
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				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	(%)	50%
Estimated or actual number of outfalls	(#)	unknown
System-Wide mapping complete	(%)	50%
Mapping method(s)		
▪ Paper/Mylar	(%)	10%
▪ CADD	(%)	10%
▪ GIS	(%)	80%
Outfalls inspected/screened	(# or %)	30%
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	10%
% of population on septic systems	(%)	90%

Construction

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

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	30%
Site inspections completed	(# or %)	50%
Estimated volume of stormwater recharged	(gpy)	unknown
Public Works Director has regularly requested engineers to implement recharge into their designs		

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	(#)	171
Storm drain cleaned	(LF or mi.)	250 lf
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	150 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		recycle
Cost of screenings disposal	($)	0

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1/year
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	4/year
Qty. of sand/debris collected by sweeping	(lbs. or tons)	400 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	recycle
Cost of sweepings disposal	($)	unknown
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	no

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

Anti-/De-Icing products and ratios *The Town uses mostly sand however we will use a sand/salt mixture in our winter operations when conditions necessitate (we use a 4:1 ratio of sand to salt).*	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	40 % 0% 0% 0% 0% 0% 60 %
Pre-wetting techniques utilized	(y/n)	no
Manual control spreaders used	(y/n)	yes
Automatic or Zero-velocity spreaders used	(y/n)	yes
Estimated net reduction in typical year salt application	(lbs. or %)	unknown
Salt pile(s) covered in storage shed(s)	(y/n)	yes
Storage shed(s) in design or under construction – *funding for new shed appropriated*	(y/n)	yes