Municipality/Organization:	**Town of Bedford, NH**
EPA NPDES Permit Number:	**NHR041036**
Mass DEP Transmittal Number:	**N/A**
Annual Report Number & Reporting Period:	**Year 10 April 1, 2012 – March 31, 2013**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)

Part I. General Information

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

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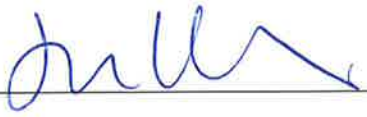
Mailing Address: 24 North Amherst Road Bedford, NH 03110

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: Jessie W. Levine

Title: Town Manager

Date: 4-25-13

Part II. Self-Assessment

The Town of Bedford has completed the required self-Assessment and determined that the municipality has addressed each of the six minimum control standards and therefore is in substantial compliance with the permit conditions.

Our active participation with the storm-water group continues to be an important part of our program. We continue to share ideas and are working towards a collective public outreach program.

Public Outreach continues to be an important aspect of the program as well. This past year in addition to displays at Town Fair, the Town continued our active participation in the McQuesten Brook Stream Team – the team's annual brook clean-up was held on June 1, 2012 and another day is scheduled for June 5, 2013.

We will continue implementing existing BMP's for the coming year and will modify as necessary based on new permit requirements.

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
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 Newsletter has discontinued service in town and therefore we were unable to include articles in this format.	Work on multi-community information campaign.
Revised					
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.	Continue discussions during Planning Board meetings: Include BMP 1-5
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 available for distribution.	Continue with display – distribute materials.
1-5	Earth Day Scavenger Hunt	DPW/ J. Stanford Bedford Middle School	Scavenger Hunt began in permit year 8 and continued into permit year 9 for 2 weeks.	Scavenger Hunt did not occur in permit year 10, but expect to resume next year.	Participate in the activity each year. Expand the display to include additional literature.
1-6	McQuesten Brook Watershed Brook Clean-up – Website and postings	DPW/ J. Stanford	Team has a Public Kiosk and outreach advertisements.	Team has a Public Kiosk and outreach advertising for the June 1, 2012 clean-up.	Maintenance of site Kiosk board and continue with public participation in the brook clean-up.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
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	Stormwater and NPDES permit update was discussed at Town Council meeting broadcasted through BCTV.	Continue to solicit public input for Town-wide drainage system upgrade project.
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 active participation with group.
Revised			Residents have not been included in the group as of yet.		

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 Merrimack River – Heritage Trail pickup with town staff.	Continue participation with local groups.
2-5	Implement Single Stream Recycling at Transfer Station	DPW/ J. Stanford	Reduce municipal solid waste.	Continued operation of single-stream recycling.	Continue with program.
2-6	Destination Imagination project participation – recycling.	DPW/ J. Stanford	Educate School Children/Town on importance of recycling.	Review educational campaign including new signage at Transfer Station (sign designed by elementary students).	Complete recycling sign/campaign at Transfer Station

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
3-1	Map storm water drainage system and outfalls	DPW/ J. Stanford	Complete mapping by end of 5 year permit term	Outfalls mapped in previous years. Continued review of outfalls. Conversion of paper outfall data to GIS completed and is expanding to include entire drainage system.	Continue with GIS conversion as part of the next permit.
Revised					
3-2	Maintain map database on GIS system	DPW/ J. Stanford	Complete with system mapping (BMP 3-1)	GIS system in place.	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 updating inventory as new developments come in 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 10.	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	Public Works did not attend any training seminars specific to stormwater in 2012. Other seminars on road maintenance were attended.	Continue training with additional storm water topics.
Revised			Training through T2		
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 - Illicit Discharge Detection and Elimination

3-7	GIS mapping of drainage system for new permit	DPW/ J. Stanford	GPS locate and map remaining drainage system as expected in the new permit.	Funding approved in 2011 for entire drainage system GIS and management system – work continued on GIS conversion of data.	Continue collecting data on catch basins and drain manholes.
3-8	Participate with McQuesten Brook Watershed - Canine Sniffing Services to investigate watershed	DPW/ J. Stanford	Incorporate these services into IDDE program.	Work with McQuesten Brook Team to schedule canine sniffing services to investigate commercial areas around the brook – also incorporate education campaign with these services.	Participate in program.
3-9	Hire new in-house engineering technician for Town's stormwater program including IDDE	DPW/ M.McLaughlin	In-house technician for stormwater program.	Full Time position funded and filled for the stormwater program.	Continue funding engineering technician position.

4. Construction Site Stormwater Runoff Control

BMP ID #	**BMP Description**	**Responsible Dept./Person Name**	**Measurable Goal(s)**	**Progress on Goal(s) – Permit Year 10** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Permit Year 11**
4-1	Storm water impact and design review process	Planning Board/R. Sawyer	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/R. Sawyer	Continue to inspect sites, record inspections and track violations	Inspected construction sites. Submitted information to owners and contractors about design storm water control measures. Planning staff along with contracted inspectors were very aggressive in ensuring compliance.	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. Contracted inspectors monitored sites for routine maintenance of erosion control.	Continue with updating regulations/policies as needed.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
5-1	Conduct storm water impact and design review process (in conjunction with BMP 4-1)	Planning Board/R. Sawyer	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/R. Sawyer	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					

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
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. Additional sweeping is expected for year 11.	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 town-owned catch basins in the commercial districts. Also performed street swale maintenance and cleaning.	Continue with program and expand as necessary.
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 (June 16, 2012) at the Town Transfer Station.	Conduct 1 household hazardous waste collection day – Scheduled for June 1, 2013
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	Single stream recycling in operation. Continue to clean areas of debris to avoid trash, etc from uncontrolled runoff.	Continue with keeping site clean.
Revised			Inspected each site for any deficiencies.		
6-7	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. Winter loading of salt was done under cover of the new shed. Purchased zero-velocity spreaders for 3 new dump trucks.	Continue with operation as discussed. Purchase 2 additional zero velocity spreaders.
	Revised		Continue to maintain salt shed.		

6a. Additions - None

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
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	We have not identified any direct discharges into the 3 impaired water ways. But continue to monitor roadside swales.	Continue monitoring of swales near impaired waters and expand the program as necessary.
Revised			Monitor indirect discharges.		
Revised					

7a. Additions

7-2	Member of McQuesten Brook Stream Team. Grant awarded to study brook.	DPW/ J. Stanford	Study Brook restoration. Apply for grant to make improvements.	Attended continuing meetings with stakeholders. Various agencies participating in the project.	A brook clean-up is scheduled for June 5, 2012.
Revised					

7b. WLA Assessment

We have not identified any direct discharges into the 3 impaired waterways; however there were a few indirect overflow structures that ultimately flow into Riddle Brook. Bond funds were approved in 2011 for two drainage/road projects in adjacent areas to impaired waters. Projects are scheduled for 2013. We also funded and hired an in-house engineering technician for the stormwater program.

Part IV. Summary of Information Collected and Analyzed

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. In anticipation of the new permit and expected requirement to expand mapping of entire drainage system, work continued on full computer mapping and computer based management system (outfalls have already been converted to GIS). Town representatives are continued participation in the McQuesten Brook stream team. A consultant has already begun collecting data on temperatures and water quality and is working on a public outreach campaign along with grant application for additional improvements.

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, 2012 through March 31, 2013)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	yes
Annual program budget/expenditures **	($)	5,000
Total program expenditures since beginning of permit coverage	($)	55,000
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		Bond and General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	30%
Stormwater management committee established	(y/n)	No
Stream teams established or supported	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	No
Shoreline cleaned since beginning of permit coverage	(mi.)	0
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	20%
▪ material collected **	(tons or gal)	4 tons
School curricula implemented	(y/n)	No

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	(%)	100
Estimated or actual number of outfalls	(#)	367
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	70
Mapping method(s)		
▪ Paper/Mylar	(%)	10
▪ CADD	(%)	10
▪ GIS	(%)	80
Outfalls inspected/screened **	(# or %)	20%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	0
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)	1
% of population on sewer	(%)	15
% of population on septic systems	(%)	85

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 %)	7
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	(%)	Unknown
Site inspections (for proper BMP installation & operation) completed **	(# or %)	Unknown
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Yes
Low-impact development (LID) practices permitted and encouraged	(y/n)	Yes

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)	1
Qty of structures cleaned **	(#)	110
Qty. of storm drain cleaned **	(%, LF or mi.)	1500 LF
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	331 yards
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Crush/recycle
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$20,000
• Hourly or per basin contract rate **	($/hr or $ per basin)	120/Hr
• Disposal cost**	($)	Unknown
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	0
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	Yes
• % Structures cleaned with clam shells **	(%)	0
• % Structures cleaned with vactor **	(%)	100

	(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)	4
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	67 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Recycle
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$20,000
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	In-house
• Disposal cost**	($)	unknown
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	No
• % Roads swept with rotary brush sweepers **	%	30
• % 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 %)	Unknown
▪ Herbicides	(lbs. or %)	Unknown
▪ Pesticides	(lbs. or %)	N/A
Integrated Pest Management (IPM) Practices Implemented	(y/n)	No

	(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	50 0 0 0 0 0 50
Pre-wetting techniques utilized **	(y/n or %)	No
Manual control spreaders used **	(y/n or %)	Yes
Zero-velocity spreaders used **	(y/n or %)	Yes
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	Unknown
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	Unknown
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	No
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Yes