

5/18/11

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Municipality/Organization: Somersworth, NH

EPA NPDES Permit Number: NHR041034

Annual Report Number
& Reporting Period: No. 7: April 30, 2010 – April 30, 2011

NPDES PII Small MS4 General Permit Annual Report


Part I. General Information

Contact Person: Chris Jacobs, PE **Title:** City Engineer

Telephone #: 603-692-9524 **Email:** cjacobs@somersworth.com

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: Bob Belmore

Title: City Manager

Date: April 30, 2011

Part II. Self-Assessment

The City of Somersworth 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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
1	Complete & show movie "There is No Away"	Chris Jacobs Engineering	Number of showings	- The City continues to show "There is No Away" and "After the Storm: A Citizen's Video Guide to Understanding Stormwater" on our Government Access -Cable Channel 22. It was shown on Monday, Tuesday and Wednesday, twice a day between April 22 and October 1 st ,	- Continue showing on Government Access - Cable Channel 22. - Continue outreach to schools to use the movie in their curriculum.
Revised	(Our SWPPP schedules this BMP for years 1 - 5).				
2	Develop educational resources.	Chris Jacobs, PE Engineering	Variety/number of handouts.	SWPPP Principal Contact continues to look for useful resources to enhance our program. We continue our participation in the Seacoast Stormwater Coalition. This facilitates a cost-effective approach to sharing information/resources in fulfilling our Outreach/Education and Staff Training components of our SWPPP. Handing out "After the Storm" pamphlets at City Clerk's office.	Continue attending, participating, and gathering.

Revised	(Our SWPPP schedules this BMP for years 2 - 5).						
3	Articles in newsletter/website.	Chris Jacobs, PE Engineering Beth Nault City Mangers Ex. Secretary	Number of articles.	Newsletter is now distributed twice per year and space is limited. To date, the articles were excerpts from our SWPPP. We've added the full SWPPP to our website. We're looking into further revisions to our website to add a Stormwater section.	Seek alternatives to articles in the Newsletter. The City's website is being revised, so we plan to expand our Stormwater coverage here.		
Revised	(Our SWPPP schedules this BMP for years 1 - 5).						
4	Classroom education on Stormwater.	Chris Jacobs, PE Engineering	Approximate Number of students seeing the presentation is 200 over the 2 events.	The Enviroscope Model was used once at the Middle School, June 2010 at the Somersworth Childrens Festival (see photo) and April 2010 during the City wide Earth Day cleanup..	Continue outreach to schools. See Additions in 1A, below. Make a presentation at the Somersworth Earth Day clean up April 30, 2011.		
Revised	(Our SWPPP schedules this BMP for years 1 - 5).						
5	Pet Waste Management (Our SWPPP schedules this BMP for years 2 - 5).	Chris Jacobs, PE Engineering	Number of dog licenses. Per the City Clerk we license approximately 1,300 dogs. Refer to the Pet Waste Report for more information	Educational flyer has been finalized and distributed to the Public through the City Clerk's office. Installed 6 Pet Waste Stations the summer of 2008. These have been maintained in 2009, 2010 and 2011 with weekly cleanings and stocking the bags.	Distribute flyers through the City Clerk's office. See Additions in 1A, below. Make a presentation at the Somersworth Childrens Festival in June 18, 2011.		



Somersworth Childrens Festival



City Engineer training a city resident and future young engineer on the use of the Enviroscope Model at the Somersworth Children's Festival.

1a. Additions

<p>Pet Waste and Water Quality Project</p>	<p>Recreation/Maureen Jackman & Engineering/ Chris Jacobs, PE</p>	<p>This builds on BMP #s 4, 5, & 7. Success will be measured per those BMP's.</p>		<p>See Below.</p>
<p>E. coli is listed as a source of impairment in the Salmon Falls River. Therefore, in March, 2007 we submitted a grant proposal to NH Dept of Environmental Services with three Project Goals: Pet Awareness and Education; Storm Drain Stenciling as part of Pet Waste Program; and Pet Waste Stations. Using our Storm Drain Map, we identified all neighborhoods that drain directly into the Salmon Falls River. We propose to stencil 450 catch basins in a 1.0 square mile area of the most densely populated area of Somersworth. This represents 9.5% of the area, but 26.4% of our catch basins. Stenciling will be done by the TRENDS (Teens Reaching Exciting New Dimensions) summer recreation program. Flyers/educational material will be distributed at several public buildings. We purchased an enviroscape - a molded plastic model of a watershed, complete with various land-uses, including residential, transportation, agricultural, construction, recreation, and forestry. It's a tool to demonstrate how water pollution can result from a variety of activities, and how the pollution can impact our water resources. It was utilized with Recreation's after-school program, during Earth Day April 2011, Somersworth Childrens Festival June 2010 and will also be made available for use by all Public and Private schools in Somersworth. We installed 6 Pet Waste Stations: Noble Pines Park, Millennium Park, Memorial Drive, Jules Bisson Park, Pine Street Park and near a swimming area along the River. The Pet Waste flyer has been completed and is being distributed within City Hall at the City Clerks office when dogs are registered, at the Development Services, Recreation and Engineering / Water Department counters.</p>				

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
6	Community cleanups	Engineering/ Chris Jacobs, PE & Tom Willis, PE Public Works Director	Number of participants = 200.	- Approx. 300 +/- participants in our April 30, 2011 City Wide Enhancement Day picked up trash in the Downtown area and all over the City.	- City Wide Enhancement Day is an annual event. - Continue using volunteer organizations for community cleanup.
Revised	(Our SWPPP schedules this BMP for years 1 - 5).				
7	Storm Drain stenciling	Recreation/Maureen Jackman & Engineering/ Chris Jacobs, PE	295 catchbasins were stenciled in 2009	Keith Perkins a Boy Scout is worked on his Eagle Scout Project. Along with his troop they stenciled 295 catchbasins in the Spring of 2009. No stenciling in 2010.	To have the Public Works Staff paint out the catchbasins.
Revised	(Our SWPPP schedules this BMP for years 1 and 4).				

2a. Additions

<p>Coordinate with Seacoast Stormwater Coalition for appropriate and feasible education and outreach.</p>	<p>Number of meetings and/or coordinated efforts with the Seacoast Stormwater Coalition.</p>	<p>The City has designated a representative. The Coalition meets quarterly throughout the year. The Coalition coordinated an application for grant money to create a Manual for standard operating procedures for IDDE and good housekeeping. The Manual was approved by the State and produced in November 2006. The Manual can be found on line at www.des.state.nh.us, under popular topics choose Storm Water, then Latest News, and scroll down to paragraph 2.</p> <p>Meetings Attended: Dec 9, 2010 (2 hrs) Sept 23, 2010 (2 hrs) April 29, 2010 (2 hrs)</p>	<p>On-going meetings and attendance. Conduct training using the manual</p>

11	<p>Review City Ordinances</p> <p>(Our SWPPP schedules this BMP for years 2 & 3).</p>	<p>Dave Sharples, City Planner & Chris Jacobs, PE City Engineer</p>	<p>Number of changes/additions</p>	<p>On February 2, 2009 the City Council passed an updated wetlands ordinance titled the Riparian and Wetland Buffer District Ordinance. We see this as a significant step as it will serve to prevent silt and topsoil from entering water bodies and wetlands. On April 4, 2011 the City Council passed ordinance 9-11 which permits access over wetlands for Timber Harvesting after the applicant has permission from the State Wetlands Bureau.</p>	<p>- Complete review of ordinances pertaining to Stormwater. - Formalize a Stormwater team.</p>
Revised	<p>Develop Guidelines and Standard Operating Procedures Manual</p>	<p>Chris Jacobs, PE – City Engineer</p>		<p>The Seacoast Stormwater Coalition completed this task. It can be found on line at www.des.state.nh.us, under popular topics choose Storm Water, then Latest News, and scroll down to paragraph 2.</p>	<p>This year we propose to follow up this initiative with development of materials and curriculum and begin staff training on Illicit Discharge Detection and Elimination.</p>

3a. Additions

	<p>Staff Training</p>	<p>Chris Jacobs, PE – City Engineer</p>	<p>21 of 36 reports were received for 2010</p>	<p>Instead of staff training in 2010 we have spent our time enforcing the stormwater rules and regulations contained within or site plan and subdivision regulations. Specifically we have sent out letters to previously approved sites requesting their Stormwater Management reports for 2010.</p>	<p>Use the Guidelines & SOP's (above) to develop course materials and curriculum and begin staff training on Illicit Discharge Detection and Elimination. This is a joint effort with other communities in the Seacoast Stormwater Coalition.</p>
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4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
11 Revised	Review City Ordinances (Our SWPPP schedules this BMP for years 1 & 2).	Dave Sharples, City Planner & Chris Jacobs, PE City Engineer	Number of changes/additions = none	On February 2, 2009 the City Council passed an updated wetlands ordinance titled the Riparian and Wetland Buffer District Ordinance. We see this as a significant step as it will serve to prevent silt and topsoil from entering water bodies and wetlands.	- Complete revision of Stormwater Ordinances.
12 Revised	Employee training (Our SWPPP schedules this BMP for years 1 - 5).	Dave Sharples, City Planner & Public Works/Tom Willis, PE	Number trained = 0		Send new personnel as necessary.
13 Revised	Begin inspection program (Our SWPPP schedules this BMP in year 3).	Public Works/Tom Willis, PE	Number of sites inspected = 9	- Continue inspecting our own work. - CLD Engineering inspects many sites for the City during the year.	Continue current procedures. Improve documentation procedures.

14	<p>Maximum compliance</p>	<p>Chris Jacobs, PE – City Engineer & Tom Willis, PE Public Works Dir.</p>	<p>Number of inspections = 62+ Fall Machine = 2 Avis Goodwin = 8 Contitech Thermopol= 8 CVS = 15 Idlehurst School = 17 O’Connell Medical = 2 OATS Med = 1 Radlow Est = 3 Terrascape = 6</p>	<p>We inspected a number of sites, but we need to improve documentation procedures.</p>	<p>With Consultant inspection and staff training we are moving closer to full compliance. Final reports are required from the consultant on all projects detailing daily reports & other construction quality standards.</p>
Revised	<p>(Our SWPPP schedules this BMP for year 5).</p>				

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
16	Identification of BMP's.	Dave Sharples, City Planner & Chris Jacobs, PE City Engineer	Number of BMP's	The City has embraced some of the LID BMP's and specifically the used of pervious paving. A new medical office park (Terrascope) has installed of pervious paving in all areas except the main entrance. This serves to reduce runoff and the size of the stormwater detention areas. The work was installed during October & November of 2009. Inspection in 2010 show that the pavement is working as designed.	Continue observing other municipality's efforts and obtaining sample ordinances.
Revised	(Our SWPPP schedules this BMP for years 3 - 5).				
17	Post Construction Maintenance	Engineering/ Chris Jacobs, PE	Number of facilities	At the Planning Board stage we require a Stormwater Management, Maintenance, & Inspection Plan to be submitted and approved. We have sent out letters twice to previously approved sites requesting their Stormwater Management reports for 2010.	-Continue with current practice. -Continue with yearly letters to insure inspections are being completed and are being installed.
Revised	(Our SWPPP schedules this BMP for years 1 - 5).		21 of 36 reports were received for 2010		
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
18 Revised	Vehicle washings (Our SWPPP schedules this BMP for year 1)	Public Works/Tom Willis, PE	Employees trained	Established new procedures for vehicle washings and trained Public Works staff on them.	Continue training as needed.
19 Revised	Street cleaning (Our SWPPP schedules this BMP for years 1 - 5).	Public Works/Tom Willis, PE	274.30 Man-hours	- 274.30 hours spent sweeping 1300 miles of streets. The City repaired our existing sweeper and we purchased a new sweeper under the 2009 Capital Improvements Projects section of the budget. The newest street sweeper has been aggressively used this spring to quickly remove accumulated winter sand and contaminants from streets to minimize the drainage system impacts.	Continue street sweeping. We expect to sweep approximately 1300 miles in year 8
20	Train employees	Public Works/Tom Willis, PE	Employees trained	Informal training provided as needed for various SWPPP activities, such as silt fence installation & vehicle washings. See Additions, below.	Move forward with other entities to develop more formal training program on Stormwater activities. See Additions, below.

Revised	Reduce the amount of nutrients and sediments entering receiving waters through education of municipal employees about spill prevention and control, vehicle washing, lawn activities, etc.		Create and publish a Manual for NH communities to standardize best management practices and procedures for IDDE, pollution prevention and good housekeeping. Train storm water managers and labor force against these standards.	Seacoast Coalition obtained state grant money to fund the development of BMPs and SOPs best suited NH communities in meeting the IDDE, pollution prevention and good housekeeping requirements. Procedures developed. Numerous meetings held b/w the Seacoast Coalition reps as well as workforce providing input to improve the Manual in application and practicality. The Manual was approved by the State and produced November 2006. The Manual can be found on line at www.des.state.nh.us , under popular topics choose Storm Water, then Latest News, and scroll down to paragraph 2.	Training to be conducted to meet these standard operating procedures: IDDE Pollution Prevention and Good Housekeeping training 7 sessions scheduled between May and October 2007.
21	Storm drain system cleaning	Public Works/Tom Willis, PE.	190 Catch Basins were cleaned	The City contracted with Bellemore Catch Basin Maintenance, Inc to clean basins at a cost of \$6,640.50. They cleaned 190 basins.	Continue storm drain system cleaning. We have funding for an outside consultant in year 8 in the amount of \$7,200 for the proposed budget FY11 – FY12. This will be voted on by June 2011 to continue with the existing cleaning program.
Revised	Spill response & prevention	Public Works/Tom Willis, PE.	Employees trained	Seacoast Coalition obtained state grant money to fund the development of BMPs and SOPs best suited NH communities in meeting the IDDE, pollution prevention and good housekeeping requirements. Procedures developed. Numerous meetings held b/w the Seacoast Coalition reps as well as workforce providing input to improve the Manual in application and practicality. The Manual was approved by the State and produced November 2006. The Manual can be found on line at www.des.state.nh.us , under popular topics choose Storm Water, then Latest News, and scroll down to paragraph 2.	See Additions, below. This is one of the SOP's under development by the Seacoast Stormwater Coalition.

Revised					
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This is the new street sweeper that the City purchased in 2009 to increase the effectiveness of our sweeping program.

6a. Additions

	<p>Develop Guidelines and Standard Operating Procedures Manual</p>	<p>Engineering/ Chris Jacobs, PE</p>		<p>The Seacoast Stormwater Coalition completed this task. It can be found on line at www.des.state.nh.us, under popular topics choose Storm Water, then Latest News, and scroll down to paragraph 2.</p>	<p>- Next year we propose to follow up this initiative with development of materials and curriculum and begin staff training on Illicit Discharge Detection and Elimination.</p>
	<p>Household Hazardous Waste Day</p>	<p>Public Works/Tom Willis, PE</p>	<p>Number of households.</p>	<p>Though we've never reported this in our Annual Reports, we've held this event for years. The movie "Stormwater Runoff: There Is No Away" shows video footage of the one we held in 2003 (+-). households that participated.</p>	<p>This event was not funded in the FY10 to FY11 budget. Funding for participation on this event is included in the proposed FY12 budget to voted on by June 2011 for the community to participate in a regional collection managed by a neighboring community.</p>

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
5-M e.coli impairment for NHIMP60030406-02 due to Illicit Connections to storm drains		Chris Jacobs, PE – City Engineer & Tom Willis, PE Public Works Dir.		We have been and continue to investigate the storm drainage system for illicit discharges with the assistance of the NHDES. Once identified, the municipality has worked with the property owners to disconnect the discharge and where necessary re-plumb the sanitary sewer to accommodate the discharge.	We have been and continue to investigate the storm drainage system for illicit discharges with the assistance of the NHDES. Once identified, the municipality has worked with the property owners to disconnect the discharge and where necessary re-plumb the sanitary sewer to accommodate the discharge.
Revised					
4A-M Dissolved Oxygen impairment for NHRIV600030406-03 due to Municipal Point Source Discharges		Tom Willis, PE Public Works Dir.		A Point Source TMDL was approved by EPA in 1999. The joint Maine-New Hampshire TMDL has been implemented by the wastewater treatment facilities that discharge to the Salmon Falls River and the river is monitored on a regular basis to determine if water quality standards are being met.	A Point Source TMDL was approved by EPA in 1999. The joint Maine-New Hampshire TMDL has been implemented by the wastewater treatment facilities that discharge to the Salmon Falls River and the river is monitored on a regular basis to determine if water quality standards are being met.
Revised					
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7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	YES
Annual program budget/expenditures- Clean Catch Basins	(\$)7,200	
Sweeper Annual Payment (\$16,900) Sweeper Parts (\$3,700) Sweeper Labor (\$13,715)	\$34,315	
Household Hazardous Waste Collection Day	\$2,000	\$43,515

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	25%
Stormwater management committee established	(y/n)	NO
Stream teams established or supported	(# or y/n)	NO
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	No
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	none
▪ community participation	(%)	n/a
▪ material collected	(tons or gal)	n/a
School curricula implemented	(y/n)	YES

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination	Section 8A:Article 8:10			X
▪ Erosion & Sediment Control	Section 22A:11:17			X
▪ Post-Development Stormwater Management	X			
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination	Section 8A:Article 8:10			X
▪ Erosion & Sediment Control	Section 22A:11:17			X
▪ Post-Development Stormwater Management	X			

Mapping and Illicit Discharges

Outfall mapping complete	(%)	None this yr
Estimated or actual number of outfalls	(#)	Est 25
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	Yes
▪ GIS	(%)	Yes
Outfalls inspected/screened	(# or %)	None this yr
Illicit discharges identified	(#)	One

Illicit connections removed	(#)	None
	(est. gpd)	
% of population on sewer (2974 parcels)	(%)	80%
% of population on septic systems (726 parcels)	(%)	20%

Construction

Number of construction starts (>1-acre)	(#)	4
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	62
Tickets/Stop work orders issued	(# or %)	None
Fines collected	(# and \$)	None
Complaints/concerns received from public	(#)	None

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	50%
Estimated volume of stormwater recharged	(gpy)	Un-determined

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Once
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Once
Total number of structures cleaned	(#)	190

Storm drain cleaned	(LF or mi.)	50 lf
Qty. of screenings/debris removed from storm sewer infrastructure	cyds	15
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Used as fill
Cost of screenings disposal	(\$)	\$75

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	8 months/yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	8 months/yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	10 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	PW Facility
Cost of sweepings disposal	(\$)	\$75
Vacuum street sweepers purchased/leased	(#)	One in 2009
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 %)	None
▪ Herbicides	(lbs. or %)	Contracted Out
▪ Pesticides	(lbs. or %)	Contracted Out

Anti-/De-icing products and ratios		80%
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 %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	n/a