

Municipality/Organization: Somersworth, NH

EPA NPDES Permit Number: NHR041034

Annual Report Number

& Reporting Period: No. 5: May 2008 – April 2009

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, 2009

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
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.	- 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 Managers 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. (Our SWPPP schedules this BMP for years 1 - 5).	Chris Jacobs, PE Engineering	Number of students.	This continues to be part of the Middle School curriculum.	Continue outreach to schools. See Additions in 1A, below.
Revised					
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.	Educational flyer has been finalized and distributed to the Public through the City Clerk's office. Purchased 4 Pet Waste Stations and 2 were donated. Installed the summer of 2008.	Distribute flyers through the City Clerk's office. See Additions in 1A, below. Make a presentation at the Somersworth Childrens Festival in June 2009.

1a. Additions

Pet Waste and Water Quality Project	Recreation/Maureen Call & Engineering/Chris Jacobs, PE	This builds on BMP #'s 4, 5, & 7. Success will be measured per those BMP's.		See Below. We received notification on 4/6/07 that our proposal will be funded.
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 plan to purchase 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 will be utilized with Recreation's after-school program and will also be made available for use by all Public and Private schools in Somersworth. We also propose 6 new 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.				

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
6	Community cleanups	Engineering/ Chris Jacobs, PE & John Jackman, PE Public Works Director	Number of participants.	- Approx. 200 +/- participants in our 2009 Downtown Enhancement Day picked up trash in the Downtown area and all over the City.	- Downtown 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 Call & Engineering/ David Foster & Chris Jacobs, PE	Number of participants.	No stenciling in 2008.	Keith Perkins a Boy Scout is working on his Eagle Scout Project. Along with his troop he plans on stenciling 500 catchbasins in the Fall of 2008.
Revised	(Our SWPPP schedules this BMP for years 1 and 4).				

2a. Additions

Coordinate with Seacoast Stormwater Coalition for appropriate and feasible education and outreach.	Number of meetings and/or coordinated efforts with the Seacoast Stormwater Coalition.	The City has designated a representative. 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. Meetings Attended: July 10 (2 hrs) September 25 (3 hrs)	On-going meetings and attendance. Conduct training using the manual

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
8	Sewer System Map	Chris Jacobs, PE – City Engineer	% Complete	Sewer System Map is done. We have obtained as-built plans from developers as work was installed. We had an intern (Matt Gagnon) update the maps for approximately 150 hrs.	Update the map on a continuous basis as new infrastructure is added to the system.
Revised	(Our SWPPP schedules this BMP for years 1 - 5).				
9	Remove known illicit connections.	Chris Jacobs, PE – City Engineer	Number removed	No illicit discharges were eliminated in 2008.	Currently we are working with the DES to continue searching for and removing illicit discharges. As of the spring of 2008 we were notified of 2 illicit discharges.
Revised	(Our SWPPP schedules this BMP for years 1 - 5).		Create standard operating procedures for the detection of non-stormwater discharges.	Developed SOPs for detection and elimination via the Seacoast Stormwater Coalition grant project. City obtained grant money through Seacoast Stormwater Coalition to develop SOPs. A Manual was created and 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.	Subsequent training using these SOPs will be held May through October 2007.
10	Information Management System	Public Works/John Jackman	Number of outfalls screened	"VueWorks" Asset Management software has been installed and is operational. We've made progress with water, sewer, and drainage assets. We had an intern (Matt Gagnon) update the maps for approximately 150 hours	Staff has begun using work orders for many tasks, including drainage system assets.
Revised	(Our SWPPP schedules this BMP for year 5).				

11	Review City Ordinances	Dave Sharples, City Planner & Chris Jacobs, PE City Engineer	Number of changes/additions	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 review of ordinances pertaining to Stormwater. - Formalize a Stormwater team.
Revised	(Our SWPPP schedules this BMP for years 2 & 3).				
	Develop Guidelines and Standard Operating Procedures Manual	Chris Jacobs, PE – City Engineer		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.	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.

3a. Additions

	Staff Training	Chris Jacobs, PE – City Engineer	16 of 26 reports were received for 2008	Instead of staff training in 2008 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 twice to previously approved sites requesting their Stormwater Management reports for 2007 and 2008.	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.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
11	Review City Ordinances	Dave Sharples, City Planner & Chris Jacobs, PE City Engineer	Number of changes/additions = 1	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.
Revised	(Our SWPPP schedules this BMP for years 1 & 2).				
12	Employee training	Dave Sharples, City Planner & Public Works/John Jackman	Number trained =2	Planning Board members David Witham and Erwin Grant attended Stormwater Management training through the UNH Technology Transfer Center.	Send new personnel as necessary.
Revised	(Our SWPPP schedules this BMP for years 1 - 5).				
13	Begin inspection program	Public Works/John Jackman	Number of sites inspected = 10	- Continue inspecting our own work. - CLD Engineering inspects many sites for the City during the year.	Continue current procedures. Improve documentation procedures.
Revised	(Our SWPPP schedules this BMP in year 3).				
14	Maximum compliance	Chris Jacobs, PE – City Engineer & John Jackman, PE Public Works Dir.	Number of inspections = 40+	We inspected a number of sites, but we need to improve documentation procedures.	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.

Revised	(Our SWPPP schedules this BMP for year 5).				
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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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
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. To this effort an athletic club installed pervious paving under all of their proposed parking expansion and reconstruction. A new medical office park (Terrascape) has proposed use 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 will start to be installed in 2009.	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/ David Foster	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 2007 and 2008.	-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).		16 of 26 reports were received for 2008		
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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
18	Vehicle washings	Public Works/John Jackman	Employees trained	Established new procedures for vehicle washings and trained Public Works staff on them.	Continue training as needed.
Revised	(Our SWPPP schedules this BMP for year 1)				
19	Street cleaning	Public Works/John Jackman	239 Man-hours	- 239 hours spent sweeping 1300 miles of streets. The City repaired our existing sweeper and we proposed purchasing a new sweeper under the 2009 Capital Improvements Projects section of the budget. This has not been approved by the City Council as of this date.	Continue street sweeping. We expect to sweep approximately 1300 miles in year 7
Revised	(Our SWPPP schedules this BMP for years 1 - 5).				
20	Train employees	Public Works/John Jackman	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 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/John Jackman	71 Man-hours	The City contracted with Felix Septic to clean basins at \$110.00 per hour, for a total figure of \$7,260.00. They cleaned 111 basins. Public works staff cleaned 3 basins by hand in 5 hours.	Continue storm drain system cleaning. We have funding for an outside consultant in year 7 in the amount of \$7,200 for the proposed budget.
Revised	(Our SWPPP schedules this BMP for years 1 - 5).				
22	Spill response & prevention	Public Works/John Jackman	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	(Our SWPPP schedules this BMP for years 3 & 4).				
Revised					

6a. Additions

	Develop Guidelines and Standard Operating Procedures Manual	Engineering/ David Foster		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.	- 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.
	Household Hazardous Waste Day	Public Works/John Jackman	Number of households.	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 (+-). This event was held on May 3, 2008 There were 158 Somersworth households that participated.	Continue holding this event. Funding has been established for this event in May 2009.

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
5-M e.coli impairment for NHIMP60030406-02 due to Illicit Connections to storm drains		Chris Jacobs, PE – City Engineer & John Jackman, 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 NHRIV60030406-03 due to Municipal Point Source Discharges		John Jackman, 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					
Revised					
Revised					
Revised					
Revised					

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

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

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II				Under Review				Drafted				Adopted			
▪ 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		(%)		
Estimated or actual number of outfalls		(#)		
System-Wide mapping complete		(%)		
Mapping method(s)				
▪ Paper/Mylar		(%)		
▪ CADD		(%)		
▪ GIS		(%)		
Outfalls inspected/screened		(# or %)		
Illicit discharges identified		(#)		
Illicit connections removed		(#)		
		(est. gpd)		
% of population on sewer		(%)		
% of population on septic systems		(%)		

Construction

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

Post-Development Stormwater Management

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

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		

Cost of screenings disposal	(\$)	
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	
Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Anti-/De-icing products and ratios		
	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	

Storage shed(s) in design or under construction		(y/n)		