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Municipality/Organization: **Rochester, New Hampshire**

EPA NPDES Permit Number:

NHDES Permit Number: NHR041028

Annual Report Number & Reporting Period: **April 1, 2007 – March 31, 2008 (report no. 5)**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2008)

Part I. General Information

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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: John Scruton

Title: City Manager

Date:

Part II. Self-Assessment

The City of Rochester has continued to work to comply with the requirements of the Stormwater General Permit. In an effort to ensure that all the elements in the City's Stormwater Management Plan filed in 2003 were addressed, the City retained the services of a consultant because it became clear that existing staff could not meet the minimum elements outlined in the plan without outside assistance. Until fiscal year 2007, all efforts had been performed using existing staff.

In City's fiscal year beginning in July 2007, the City Council appropriated $200,000 for the city obtain assistance with bringing all its goals in the stormwater management plan to conclusion. The city hired CLD Engineers of Manchester, NH to draft a stormwater ordinance, locate and map as many stormwater outfalls as could be found, develop stormwater brochures and written public relations material for educational purposes, and develop a series of educational material that can inform the public about the importance of stormwater management that would be placed on the City's website.

On April 1, 2008, a municipal stormwater ordinance proposal was introduced to the Rochester City Council for consideration. The council referred the ordinance to the Council's Public Works Committee for review and discussion. During its meeting on April 17, 2008, the public works committee favorably endorsed the proposed ordinance with minor recommended changes. These changes have been incorporated into the ordinance, and it will be considered for adoption by the City Council during its May 6, 2008 regular meeting. Some of the elements of the ordinance include: local permitting for most disturbances greater than 5,000 square feet, requirement to develop a construction stormwater management and erosion control plan (for disturbances generally greater than 20,000 square feet), local review of prepared documents, design standards' guidelines, construction and inspection guidelines, post construction operation guidelines, and prohibition of illicit discharges and connections.

During its efforts to locate all of its outfalls, CLD identified a total of 266 outfalls citywide. All of the outfalls identified by CLD were photographed and subject to visual examinations. This is in addition to the 172 outfalls that were located during previous efforts, therefore a total of 438 outfalls have been documented. All of these outfalls have been located and mapped to GPS coordinates. Some of the outfalls identified by the City were subject to analytical testing. Additional efforts are still needed to correlate the results of the CLD outfall findings with data that was compiled in 2005 by a college intern that was hired by the City. We note that some of the outfalls identified are owned or managed by the New Hampshire Department of Transportation. The City plans to share and coordinate data as the evaluation process continues to move forward.

An independent third party consulting engineer, who reports their findings back to the planning and engineering staff and ultimately to the planning board, continues to review all significant development plans in a comprehensive fashion. This

third-party engineer has been required by the city to consider stormwater management as part of the review criteria. The City continues to be more proactive in monitoring stormwater management practices at construction sites. The City's proposed stormwater ordinance will reduce the size of the construction site that will be subject to the city's oversight.

The City is continuing its efforts to promote the Cocheco River as an amenity to the City's vibrancy. The City's riverwalk committee has continued its work on the riverwalk proposal. This committee has developed a proposal for the development of a pocket park located near the shore of the Cocheco River within walking distance of the downtown area that is intended to enhance the Cocheco River as a focal point to the City's downtown experience. The Riverwalk Committee has a goal of constructing this park later in 2008.

The City has been a charter member and an active participant in the Seacoast Stormwater Coalition, an organization of other MS4 communities in the Seacoast region of New Hampshire with the goal of leveraging resources and sharing information to achieve common goals particularly as it relates to training and outreach. This organization continued to meet approximately monthly during the reporting period. The City's representative to the coalition was an active participant and leveraged the resources of the Coalition to fulfill some of the city's goals, most notably taking advantage of stormwater management awareness training the coalition provided to all its highway and utility employees within the Department of Public works in September 2007.

It was originally the city's intention to implement many of the goals in the management plan using existing city staff, with targeted assistance from outside consultants. Meeting all of the goals outlined in the stormwater management plan has proven to be a challenge using existing city staff due to the growth that the city has endured during the general permit period and the ambitious capital improvement program that has been approved by the City Council. As the term of the initial general permit draws to a close, we believe we have made a substantial effort to implement the SMP. Staffing challenges and competing priorities repeatedly make for an uneven focus on even-handed management of the program. During the past five years, we have developed procedural changes that focuses attention on how construction sites in the city are handled, however. Drainage and stormwater management is constantly being emphasized during the planning review and approval process and construction process, with cooperation from the Planning, Code Enforcement, and Public Works Departments. The Recreation, Arena, and Youth Services Department and Conservation Commission have embraced keeping our public spaces clean by sponsoring and/or participating in events that are designed to cleanup public areas around waterways in the city or reaching out to the public and making them aware of stormwater management.

Most of the BMPs selected by the City as part of its SMP were appropriate. We intentionally tried to keep it simple and do what was required. We are a leanly staffed city for its size and we were aware that the program would require time, effort, and money. This has proven to be true. Given our staffing levels and the growth that the city has seen during the permit

period, the City of Rochester has made good headway on many of its BMP goals. There is still work to be done as outlined in our control measures summary below.

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Beyond permit Year 5 – (until a new general permit is issued).
01-01	Prepare Stormwater Video	Public Works /Commissioner	Cable Access, school and library showings	The Stormwater video continues to be a valuable tool for informing the public on the importance of stormwater stewardship and management. The video continues to be shown periodically on the city's government cable television channel.	This program has matured. Will continue to use this as an educational resource. No change.
Revised					
01-02	Support Annual Hazardous Waste Day	Public Works/ Office Manager	Coordinate & fund w/ Strafford Planning Commission; publicity	Community held household hazardous waste collection in Rochester on May 5, 2007. Managed and coordinated regional collection with 8 surrounding communities. Collected significant quantities of hazardous waste from 259 households.	City is continuing to manage, publicize, and finance this regional effort annually. Another Household Hazardous Waste Collection is scheduled for May 3, 2008. Currently, we are planning only a spring household hazardous waste day.
Revised					
01-03	Produce a Stormwater Brochure	Public Works/ City Engineer	Have available for public access locations in city	The city contracted with a consultant to prepare brochures and promotional material to inform the public on various elements of stormwater management. These are placed at various city buildings for the public to take at their convenience	These brochures will be continued to be made available as long as the supply lasts and they remain relevant. Additional brochures will be developed as pertinent topics surface.
Revised					
	Localized Website	Cocheco Water-shed Coalition; Public Works	Tie in with City Webpage	The city contracted with a consultant to develop stormwater specific web pages. These have been put on the City's website, which is www.rochesternh.net	The city will monitor the effectiveness of the website by soliciting feedback from stakeholders and the public. Adjustments, amendments, and expansions will be made as necessary.
Revised					

1a. Additions

01-05	School Involvement	Various Teachers/ Public Works	Promote Stormwater as a topic in the classroom	School involvement dropped off this year from previous years primarily due to workloads and focus on primary responsibilities. Stormwater management is a collateral duty for many of the DPW workers and others in the city.	Stormwater presentations will continue as opportunities arise, or when requested by the school department.
01-06	Stormwater related displays in city government buildings	DPW / Chief Water Plant Operator	Casually inform the public, while in a captive setting	DPW began a program of setting up rotating displays in the library and the city's revenue office. One of the displays relates to stormwater management (others include drinking water, water conservation, etc.). This display has not been shown recently, as it has been supplanted by other public relations efforts	These will continue in use throughout the year.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any).	Planned Activities – Beyond permit Year 5 – (until a new general permit is issued).
02-01	Promote Riverbank Cleanups	Conservation Commission/ Cocheco River Watershed Coal.	Periodic Cleanup Days	Watershed Coalition continued with canoe trips down Cocheco River to draw attention to the river quality. RAYS conducted organized riverbank clean-ups on 4/21/07 with 230 participants and a Hanson Pines (borders Cocheco River) on 9/20/2007. Groups went to clean up along riverbanks downtown and elsewhere.	More of the same will continue on at least a semi-annual basis.
Revised		Dept of Recreation Arena and Youth Services (RAYS).			
02-02	Watershed Monitoring	Conservation Commission and Cocheco Watershed Coalition	Periodic Reviews of Watershed	Cocheco Watershed Coalition has been active in monitoring the Cocheco River and its tributaries. These efforts continued during this reporting period. City of Rochester supported these efforts by conducting the laboratory analyses of the water samples collected from the Cocheco River by this organization. The City also participated in the Cocheco Watershed Restoration Plan directed by the Cocheco Watershed Coalition.	Current efforts will continue. Development of data to find locations of emphasis for monitoring underway. Much data collected and now under evaluation. The City will continue to work with the Coalition to identify and improve areas where the quality of the river is of concern.
Revised					
02-03	Greater Involvement of Dept of Recreation Arena and Youth Services (RAYS)	RAYS Neighborhood Coordinator	Greater awareness and participation among city's neighborhood groups.	RAYS has been spearheading neighborhood cleanup days in conjunction with Earth Day (April 21, 2007). Continued to be a conduit for outreach to local neighborhoods. Stormwater awareness is promoted at several events promoted by RAYS throughout the year.	Continue to promote stormwater as a cause.
Revised					

2a. Additions

02-04	Downtown River Walk	Planning Dept – Riverwalk Committee	Focus attention on Cocheco River in Downtown area - Downtown Enhancement	Riverwalk Committee has prepared a plan for a downtown pocket park along the banks of the Cocheco River on River Street. It will be accessible to residents and only a few hundred feet from a couple of popular restaurants in town. Park will draw attention to the river and will serve as an amenity to the area. Committee currently raising funds for the construction of the park.	Downtown improvement and associated tie-in to nearby Cocheco River will continue to evolve with assistance and involvement by key city departments. Continue to monitor private, re-development efforts currently underway elsewhere along the river, which could serve as another element to the development of the riverwalk vision.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Beyond permit Year 5 – (until a new general permit is issued).
03-01	Identify and map outfalls and receiving waters	Engineering Division	Map all outfalls in GIS by Spring 08.	The City hired an engineering consultant to build on what was done previously. The consultant made a concerted effort to locate and map all the outfalls in the City. A total 266 outfalls were located and mapped. This is in addition to the 172 outfalls that were mapped in a previous effort.	While we meet the minimum requirements for this permit period, additional analysis will be completed to determine the quality of the effluent being discharged from the outfalls.
Revised					
03-02	Screen outfalls for Illicit Connections	Public Works	Screen all outfalls by Spring '05.	Tied over illicit connection that was found in Lambert Court from the stormdrain system to the sanitary sewer system. Have used television camera to survey sanitary sewers and storm sewers at discreet locations to identify and confirm suspected anomalies. No add'l illicit connections identified in last year. Fitting this effort in with other responsibilities of limited utility staffing.	Continue to use existing resources to locate and eliminate illicit connections from the stormwater conveyance system.
Revised			Further investigate and located the source of those identified during the 2004 screening effort.		
03-03	Review and Development Stormwater Ordinance	Public Works/City Council	Adoption of Ordinance by Fall of 2006	Hired CLD Engineers of Manchester NH to draft a stormwater ordinance. Ordinance was presented to Rochester City council on April 1, 2008 and referred to the public works committee. PW Committee considered ordinance on April 16, 2008, with a recommendation to adopt it. It will stand for a second reading and adoption vote on May 6, 2008.	Begin a process to implement the ordinance
Revised			Presentation of the draft ordinance to the City Council by Spring 2008 – following draft by consultant.		

03-04	Illicit Connection Elimination Plan	Public Works Documentation	Plan Development by Summer 2006, assuming meaningful data is obtained during 03-02 effort	Was an active participant in the development of the Guidelines and Standard Operating Procedures for Illicit Discharge Detection and Elimination and Pollution Prevention/Good Housekeeping Plan for Stormwater Phase II Communities in New Hampshire as developed by the Seacoast Stormwater Coalition. This City has adopted this as its own blue print for identifying and detecting and eliminating illicit connections.	Will continue to implement this plan within the framework of existing staffing.
Revised			Plan Development by 2008		

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Beyond permit Year 5 – (until a new general permit is issued).
04-01 Revised	Review Stormwater features during land development process	Planning/chief planner and Public Works/ city engineer	Development of Site Review Standards	Technical staff continues to meet bi-weekly to review and discuss all new development proposals before going to planning board. Each proposal is scrutinized for stormwater impacts. City now mandates a 3rd party engineer; reporting to City Engineer, review all larger development projects. This ensures that time is available and devoted to a comprehensive design review including stormwater impacts.	Continue process as before. New stormwater ordinance will initiate a localized permitting program for ensuring stormwater management is emphasized during the planning and construction of new development.
04-02 Revised	Revise Subdivision and Site Plan Regulations	Planning/chief planner	Adoption of Site Plan Regulations	During the winter 2007-2008, the planning department drafted and the planning board approved on March 24, 2008, updates to the site planning and subdivision regulations. Those elements pertaining to stormwater management include: stipulating the storm frequency for drainage analysis for the 2, 10, and 25 year storms and to require the use of computerized modeling in performing the analysis. Regarding the zoning ordinance amendments contained in previous annual reports, a committee of the City Council is still considering the draft. Time frame for adoption is uncertain.	Once stormwater ordinance is adopted, a more comprehensive approach to stormwater management will be adopted and in force. The subdivision regulations will be a subset of the ordinance.

04-03	Construction Monitoring of Site Development	Public Works/ Inspection Engineer	Visit each site; engage in corrective action	Engineering personnel continue to visit each site plan and subdivision at regular intervals. Stormwater management, erosion control, and adherence to construction plans and city standards are emphasized. Continue to monitor development of subdivisions with streets that will eventually be owned by the City as well as significant site developments with an emphasis on maintaining appropriate erosion controls. Inspections are routinely done and reports are prepared and forwarded to the developer. Conservation Commission continues to take an active role at reviewing developments and investigating complaints. The pace of private development has slowed in the city during the past 12 months. Developers of new projects approved in the last year are required to pay city for inspection efforts, this gives the city the flexibility to hire outside consultants to assist with inspections in the event activity exceeds the ability city staff to adequately monitor the pace of development.	Continue with current practices as resources permit. Continue to work with planning department and conservation commission to ensure development projects get scrutiny.
Revised					
04-04	Public Information / Pamphlet for Site Developers	Planning/ Conservation Commission	Pamphlet for site developers	Continued the practices devised in previous years.	Continue this practice. Create a more formal pamphlet to hand out to developers and contractors during pre-construction meetings.
Revised			Significant projects are required to have a preconstruction meeting w/ city staff to outline requirements		

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Beyond permit Year 5 – (until a new general permit is issued).
05-01	Establish Drainage Maintenance Agreement Program	Planning/Public Works	Adopt as part of planning process.	City has established a program as part of the planning process, which requires owners of site plans with stormwater conveyance and detention systems to maintain these systems so they work as designed. Failure to maintain gives city the right to access the property to maintain them and recover the costs from the owner. Continued this practice	Continue with the drainage maintenance agreement process.
Revised					
05-02	Revise Regulations for Stormwater Management	Planning/Public Works	Adoption of Regulations	Hired CLD Engineers to draft a stormwater ordinance for the City. Ordinance was presented to the City Council for review on April 1, 2008. It has gone through the committee process. It is on the agenda for a final vote on May 6, 2008 for adoption. (See BMP 03-03)	Implement the ordinance.
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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Beyond permit Year 5 – (until a new general permit is issued).
06-01	Catch Basin Cleaning Program	Public Works/Highway Lead or Foreman	Establish Priorities	City uses VAC-Con truck to clean catch basins and manholes. Try to get to each of them every two years. Prioritized to the downtown area where they are cleaned more frequently. Staffing levels do not allow a dedicated crew to do this everyday. This practice Continued as staffing allowed.	Continue as previously. City is maintaining Vortechnics units on a recurring schedule as well as upstream catch basins. Focus on routine maintenance of Vortechnic units (May and November).
Revised		Public Works/ Highway/Fleet Supervisor			
06-02	Street Sweeping Year Road	Public Works/Highway Lead or Foreman	Install heating System in Garage for winter sweeper storage	City has two street sweepers. All winter sand is removed from the streets and sidewalks beginning in April and is an annual priority until complete. Throughout the spring, summer, and fall months both sweepers sweep and remove debris throughout the city. Downtown areas emphasized. Winter sand cannot be removed in winter because there is no heated place to store sweepers, so they must be winterized to prevent freeze-ups.	Continue the same. In order to have street sweeping capabilities during the winter months, two garage bays will need to have heat installed or new heated garage bays installed. Will continue to use less sand to treat roads during winter snow removal as a long as motorist safety is not compromised. Proposal for new public works building in 6-year CIP scheduled for 2014.
Revised		Public Works/ Highway/Fleet Supervisor			
Revised					

6a. Additions

06-03	Training of DPW Personnel			City participated in a regionwide training program developed by the Seacoast Stormwater Coalition to train city public works workers on Illicit Discharge Detection and Elimination and Pollution Prevention /Good Housekeeping measures.	

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
	N/A				
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

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)	No
Annual program budget/expenditures	($)	~$200,000 capital – approx. $110,000 expended for FY '08 only; an additional $10,000 is appropriated
		For HHW annually which is shared by NHDES and 8 surrounding communities.

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	Unk
Stormwater management committee established	(y/n)	No
Stream teams established or supported	(# or y/n)	Yes – Cocheco
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Yes - ~3 mi
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	~1 percent
▪ material collected	(tons or gal)	~ 13,000 pounds

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				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	90
Estimated or actual number of outfalls	(#)	438
System-Wide mapping complete	(%)	90 – w/in urbanized areas
Mapping method(s)		
▪ Paper/Mylar	(%)	0
▪ CADD	(%)	
▪ GIS	(%)	90
Outfalls inspected/screened	(# or %)	95 percent of those identified
Illicit discharges identified	(#)	13 – 1 this year
Illicit connections removed	(#) (est. gpd)	1 this year

% of population on sewer	(%)	Approx 40
% of population on septic systems	(%)	Approx 60

Construction

Number of construction starts (>1-acre)	(#)	15
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100 percent
Site inspections completed	(# or %)	100 percent
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	Less than 20

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections completed	(# or %)	100 percent immediately following construction
Estimated volume of stormwater recharged	(gpy)	undetermined

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Less than 1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	2

Total number of structures cleaned	(#)	Not recorded
Storm drain cleaned	(LF or mi.)	Not recorded
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	Approx 100 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	($)	0 – Landfill Host Community

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)	6
Qty. of sand/debris collected by sweeping	(lbs. or tons)	~150 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	($)	0 – Landfill Host Community
Vacuum street sweepers purchased/leased	(#)	Own 2, 0 this year
Vacuum street sweepers specified in contracts	(y/n)	Sometimes on municipally managed projects in urban areas

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	No Meaningful reduction
▪ Herbicides	(lbs. or %)	No Meaningful reduction
▪ Pesticides	(lbs. or %)	No Meaningful reduction

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	←Varies according to storm Varies according to storm
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	Not Meaningful
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	Goal to get an expanded shed constructed by end of 2008