Municipality/Organization: Town of Durham

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Annual Report Number & Reporting Period: **No. 1: March 04-April 05**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Michael Lynch Title: Public Works Director

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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: Todd Selig

Title: Town Administrator

Date: 4/29/05

Part II. Self-Assessment

The Town of Durham has complied with all our goals for 2004 with the exception of a couple of items which have been modified to adjust to Town conditions. The following is an overview of all six minimum control measures.

Public Education and Outreach - Over the passed year the Town of Durham has taken an active role in educating its local government and citizens about the New Stormwater II regulations, as well as the Stormwater Management Plan for Durham. We have attained all our goals and then some for this year. We now are faced with coordinating with the University of New Hampshire (UNH) so we do not duplicate public information. We will continue to educate our residents and student populations.

Public Participation/Involvement – The Town of Durham has been working with the Oyster River Watershed association to review and report river conditions. The Association does river walks on a regular basis. The Association has been instrumental in monitoring the Town's watersheds.

Illicit Discharge Detection and Elimination – The Town has completed our mapping of all our catch basins. We have also done several reviews and revised our draft ordinance it has received Planning board approval and is now under Attorney review before going to Town Council for approval. We hope to begin formulating a plan for detection and elimination efforts by the end of this year.

Construction Site Strom Water Runoff Control – In year two Durham has developed its management system which will primarily be GIS oriented, we have already begun to track our catch basin cleaning via GIS and will continue to expand its capabilities. We are continuing our review of ordinance information for now until we get some Construction BMP data form UNH. We are postponing our finalization of the ordinance out to next year maybe year 4. We have begun reviewing new development with our new ordinance in mind and will be ready to implement once it is finalized. We have also been active in getting additional training for town staff.

Post Construction Runoff Control – Durham has been working with UNH who has acquired a grant to research multiple types of construction BMPs and evaluate there performances. The results are very interesting and before we start to incorporate use of specific BMPs into our specific ordinances we would like to defer this until UNH has a better understanding of test data. Currently the most popular methods of water quality BMPs are not performing very well in our region.

Pollution Prevention/Good Housekeeping – Now that Durham has developed our Storm water Mapping in GIS we have developed a plan to maintain our system over a three year period we currently have cleaned 175 catch basins in 2004 and are currently cleaning another 175 in 2005, with the remainder of our catch basins being cleaned in 2006. At which time we will start our cleaning cycle again. In addition any time we do maintenance to any stormwater structure in the MS4 we are replacing them with updated BMPs.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1	Develop Educational Resources	Michael Lynch Public Works Director		Done completed in year one.	N/A
Revised					
2	Implement Educational Activities	Michael Lynch Public Works Director	1) Stormwater article as part of newsletter. 2) Airing of Stormwater video	Durham has focused education on specific stormwater segments this year. This year we focused on animal waste again in our public park areas. This seems to be one of our biggest water quality issues to date.	We hope to generate our own Town flier this year as well as continue working with the University to educate our community.
Revised					
3	Storm Drain Stenciling	Michael Lynch Public Works Director	1) The Town directly did not do any stenciling	Do to the lack of longevity on the stenciling themselves Durham is reevaluating and looking into alternative methods of identifying catch basins.	We will continue to put effort into the catch basin identification program and hope to take a more direct role in year 3.
Revised X			.		
4	Stormwater II Informational Flier	Michael Lynch Public Works Director	This was scheduled for year two, and we are behind on this and will defer to year 3	Have evaluated the flood of fliers being sent out by surrounding communities we will be generating our own in year 3 for local distribution. Targeting local concerns with stormwater runoff.	Plan to distribute to local citizens.
Revised X					
5	Stormwater Video Airing on Town's Cable Channel	Robert Levesque Town Engineer	We have had two scheduled airings this year already, and will continue to air on our local cable access channel	We have had good response to the video and will continue airing though next year.	Durham will continue to air this video over the next year and may look to expanding our sources to other videos which have been done.
Revised					

2. Public Participation/Involvement

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
1	Create Citizen Committee/Organization	Robert Levesque PE Town Engineer	1) Committee is in place the Oyster River Watershed Association	We have continued the development of our Citizen Groups, Oyster River Watershed Association this group is very active and completes site evaluations on a regular basis.	Continue to monitor Oyster River Watershed Group and help in any way possible.
Revised					
2	Establish a Relationship with UNH cooperative Extension	Michael Lynch Public Works Director	1) The Town is reevaluating this and may opt to do catch basin identification on its own.	The Town is looking into alternatives to stenciling although stenciling has great group participation it is clear that we need a better marking system than stenciling. We are currently evaluating methods available and pricing.	We hope to be on next years Cooperative Extension's list of communities that will be identifying catch basin labeling if not we will be doing on our own.
Revised X					
3	Establish Public Strom Water Flier for Public Distribution	Michael Lynch Public Works Director	1) We have worked with the Oyster River Water shed who has developed an awareness program and has been working on Public Education	Durham has been working with the Oyster River Watershed this year to help with public awareness we will continue to work with them as well as focus on specific focal points within the community.	We will continue to evaluate the effectiveness of this type of campaign to educate the public, and get them involved. This year we intend to continue with different innovative ideas of education.
Revised X					
4	Public Meeting – Town Council Presentation	Michael Lynch Public Works Director	This was completed on June 16, 2003	Done completed in year one	We will continue to update local boards on Stormwater Management Plan.
Revised					
5	Community Watershed Cleanups	Michael Lynch Public Works Director	UNH office of sustainability sponsored and Oyster River cleanup, Durham disposed of materials	In the spring of last year UNH sponsored an Oyster River cleanup.	We will continue to help with any organization which sponsors cleanups. .This is an annual event now.
Revised					

3. Illicit Discharge Detection and Elimination

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
1	Stormwater Map	Robert Levesque PE Town Engineer	1) We have completed our mapping in our GIS system.	This goal is 90% complete we have located all our Catch Basins within the MS4 area.	We will work at locating all our piping and outfalls this year..
Revised					
2	Stormwater Ordinance	Robert Levesque PE Town Engineer	Durham has developed a Draft Ordinance that is currently being revised.	The Ordinance has passed Planning Board review and is under Legal review and revision.	Finalize and approve at council level.
Revised					
3	Implement an Information Management System for Tracking Illicit Discharges	Robert Levesque PE Town Engineer	We have finished our stormwater mapping inventory and because it is in GIS format we will be able to manage through this data base	We have been cleaning our catch basins and developing data for input into our GIS system allowing us to track basin cleaning intervals as well as Basin conditions.	To continue data input and tracking of our stormwater system..
Revised					
4	Training of Employees	Robert Levesque PE Town Engineer	We are behind on this we have been doing safety training this winter and have not gotten to stormwater .We intend to do formal training this year	We are behind on this but we have been informing primary personnel of change in policy towards stormwater, we hope to have formal training by end of this year.	To continue to educate our personnel with most updated information available.
Revised X					

4. Construction Site Stormwater Runoff Control

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
1	Collect Ordinance / Regulatory Information	Jim Campbell Town Planner	Durham has far surpassed this goal; a draft ordinance has been drafted and revised is under Legal review	We are continuing to develop revisions to the ordinance and hope to pass on to Council for review next year.	Durham hopes to get all the revisions done and accepted by the Town Boards by year 3 for adoption.
Revised					
2	Informational Management System	Robert Levesque Town Engineer	We have developed our GIS based mapping and are tracking catch basin cleaning management already.	We hope to expand our data input to our system this year to complete it in regards to catch basins.	We will continue to use our data based GIS system to locate and define possible illicit discharge locations.
Revised					
3	Finalize Ordinance/Regulatory Mechanism	Jim Campbell Town Planner	The Town has revised its timeline an intends to push out this part of our stormwater plan, due to some studies being done by UNH.	UNH has an on going pilot study to evaluate Construction BMPs for there ability to treat stormwater flows. The preliminary results are indicating that current BMPs being used may not be as efficient as first thought, need more time to evaluate.	Continue to look to develop Construction Ordinance that is best for stormwater quality removals.
Revised X					
4	Staff Training	Robert Levesque Town Engineer	The Town officials Code Enforcement, Planning and Town Engineer have taken numerous Training courses on stormwater	The Town staff has been continually taking stormwater education classes as well as informing staff of information received.	The Town will continue to develop its staff to stay well apprised of new developments in stormwater.
Revised					

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1	Identification of BMPs	Robert Levesque Town Engineer	It was the goal this year to develop possible BMPs for use within the Town, our preliminary review indicates that the Town will need more time on this.	UNH has an on going pilot study to evaluate Construction BMPs for there ability to treat stormwater flows. The preliminary results are indicating that current BMPs being used may not be as efficient as first thought, need more time to evaluate.	Durham will continue its evaluation of BMPs that can be used in our geographical area.
Revised X					

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1	Develop Pollution Prevention Plan	Michael Lynch Public Works Director	The Town has actively developed its recycling efforts to include a committee that reviews transfer station activities generates a recycling news letters.	Durham has developed methods of policy 1) Clean catch basins on a three year rotation. 2) Increase Sweeping in MS4 area from twice a year to quarterly and more on heavy use areas.	Durham has started our catch basin cleaning program in 2004 and will be complete by 2006.
Revised X					
2	Employee Training Materials	Director for Operations Doug Bullen	Stormwater posters, policy changes in regards to stormwater maintenance	The Town has been collecting and distributing stormwater information to its employees as well as some training in stormwater	Durham will continue its education and supply its employees with stormwater information.
Revised					
3	Informational Management Systems	Robert Levesque Town Engineer	We have developed our GIS base mapping and are tracking catch basin cleaning data for management already.	We hope to expand our data input to our system this year to complete it in regards to catch basins.	We will continue to use our data based GIS system to locate and define possible illicit discharge locations.
Revised					
4	Employee Training	Robert Levesque Town Engineer	We are behind on this we have been doing safety training this winter and have not gotten to stormwater .We intend to do formal training this year	We are behind on this but we have been informing primary personnel of change in policy towards stormwater, we hope to have formal training by end of this year.	To continue to educate our personnel with most updated information available.
Revised					

Part IV. Summary of Information Collected and Analyzed

No data has been collected to date.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	n
Annual program budget/expenditures	($)	10,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	80 %
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y Not logged
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	71 house holds
▪ material collected	(tons or gal)	Not available
School curricula implemented	(y/n)	Y Oyster River Assoc.

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination		X	X	
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination		X		
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	50
Estimated or actual number of outfalls	(#)	200
System-Wide mapping complete	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	0
▪ CADD	(%)	0
▪ GIS	(%)	100
Outfalls inspected/screened	(# or %)	0
Illicit discharges identified	(#)	2
Illicit connections removed	(#) (est. gpd)	2
% of population on sewer	(%)	Not available
% of population on septic systems	(%)	Not available

Construction

Number of construction starts (>1-acre)	(#)	Not available
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	Not available
Site inspections completed	(# or %)	50%
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	(%)	0
Site inspections completed	(# or %)	0
Estimated volume of stormwater recharged	(gpy)	0

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1 every third yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1 every third yr
Total number of structures cleaned	(#)	350
Storm drain cleaned	(LF or mi.)	500 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	50
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		beneficial use
Cost of screenings disposal	($)	N/A

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	3
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	3
Qty. of sand/debris collected by sweeping	(lbs. or tons)	Not available
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	beneficial use
Cost of sweepings disposal	($)	Not available
Vacuum street sweepers purchased/leased	(#)	1 owned
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	0
▪ Pesticides	(lbs. or %)	0

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	20 80
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	N
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	Not available
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	Y Second Shed