

5/5/06  
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**Municipality/Organization:** Town of Amherst, NH

**EPA NPDES Permit Number:** NHR100000

**MaDEP Transmittal Number:** \_\_\_\_\_

**Annual Report Number  
& Reporting Period:** No. 4: March 03-May 06

## NPDES PII Small MS4 General Permit Annual Report


### Part I. General Information

**Contact Person:** Bruce W. Berry **Title:** Director of Public Works

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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:** Gary MacGuire

**Title:** Town Administrator

**Date:** 5-1-06

## Part II. Self-Assessment

II, (a) 2004 - The Town of Amherst has had a slow start addressing the requirements of Storm Water II. The first initial year was spent attending meetings to handle understanding the complete process. We are committed to these requirements and regulations and I was delighted to find during the review by the engineers that information posted in the Public Works section of the town webpage unintentionally included educational information addressing long ways to go and we will stay the course. Limited volunteerism, and resources may require us to rethink our strategies, but the timetable is doable. We anticipate a local cable channel to be up and running by summer of 2004. This will become a valuable resource for spreading the

2005- Very active Stormwater II committee meets monthly. Our chairperson has posted many Stormwater II links to the town web page.

2006- Committee chairperson has authored a number of articles for our local newspaper covering such topics as the sins of vehicle washing, o

II, (b) Best Management Practices are under review by our Planning Board. More time is required to determine appropriate necessary actions and area departments.

2004 - In house improvements on town winter maintenance equipment such as groundspeed controls, liquid calcium systems (that lower the amount of product used), ground and air temperature sensing equipment mounted on vehicles, all for more appropriate winter maintenance with a goal of using less winter maintenance products.

2005 - We continue to educate our Planning board on the necessity to formulate rules and regulations. Public Works is in its second year using a mash of alcohol distilleries. The voters authorized purchase of a second liquid deicing system for the 05-06 budget cycle.

2006 - In conjunction with school and civic groups the town has assisted in roadside cleanups. Voters approved a salt/sand storage facility which will minimize residue runoff. We continue our annual street sweeping and catch basin cleaning. DPW inspects erosion control systems for new public construction. The Town of Amherst employs two licensed pesticide supervisors in different departments overseeing fertilizer and pesticide control at school districts. We are assisted with soil analysis at the University of New Hampshire. Amherst voters supported Phase II of the Baboosic Lake water treatment system with as many as twenty additional users to the eleven already on the system. Interns completed mapping outfalls and receiving waters. Follow-up will include dry weather screening.

II, (c) Achieving our first year goals, became more challenging while trying to understand the process. This will impact our five year plan and necessitate a Planning Board, Master Plan revision is underway with a goal of adopting it after hearings in 2007. The town is going through a reevaluation of the Department with a goal of increase time towards Code Enforcement with sites on site plan compliance and review and support Stormwater Phase

2005 – The process of developing and implementing rules and regulations covering pre and post construction activities are going a little slower. The Stormwater II Committee has made this their number one priority for the upcoming year.

2006 – Stormwater II ordinance is going through legal review. During review, new construction plans are looked at for the following information: Informatic Plan, Site Specific Plan, Stormwater Pollution Prevention Plan, and Notice of Intent filing. They are returned if the information is not included. Enforcement by the Planning Board (with plan notations) becomes easier.

II, (d) We continue to collect data on our catch basins during annual cleaning. Illicit connections will be sought and properly documented during the cleaning. The position of culverts and catch basins.

2005 - Plans are to hire a summer intern dedicated to documentation of culverts, catch basins, and outfalls.

2006 – As discussed in II-b above, two summer interns mapped culvert locations and flow directions. This year we will follow up with dry weather discharges etc.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities – Permit Year 2</b>	<b>Planned Activities – Progress on Goals Permit Year 3</b>
1.1	Education signage at voting	Public Works	4’X4” information poster display for town voting.		Broader base of assistance	Two years of posting similar information yielded minimal interest. The committee plans to readjust our approach by utilizing other group settings
Revised	Education booth at 4 <sup>th</sup> of July festivities	Stormwater II committee	Brochures			
1.2	Information posting on town web page	Public Works Director	Develop and update progress on town managed road construction projects	Actual posting of information on the town webpage completed by outside source.	Update with new and additional information. Investigate and implement, dedicated page on town website to stormwater	Continued research by our Stormwater Committee Chairperson to our web designer has generated quite a few links
Revised	Update as time allows	2005-Stormwater II Committee	Electronic exposure through education			
1.3	General Education Brochure	Public Works & Education Committee	Develop and distribute to residents in 04-05	This is in progress now, the committee is working through a lot of information, and brochures will be developed and disbursed.	Handout brochures initially	Some brochures built out of reprints from news articles written about drinking water and Stormwater runoff related issues earth day, voting, events on the town common
Revised						
1.4	Disburse Information to local contractors	Public Works Director and Land Use Manager	Educate private contractors in the importance of compliance	Verbal education at this point with compliance built into site plan review and follow-up with on site inspections.	Development and printing of formal education brochure designed for contractors with issuance at initial inquiry meeting.	Still working on development of brochure for contractors
Revised						
1.5	Coordinate information and program distribution within school network	Public Works Director, Conservation Commission	Develop curriculum to educate students. Fall / winter 04-05	Integrate into program currently presented to grammar school students on solid waste.	Begin to develop curriculum to be used to educate students.	Excellent volunteer program in place centered around earth day. First grade- awareness of reusable 2nd Grade- the rotten truth about landfills. 3 <sup>rd</sup> Grade, renewable and non-renewable resources.
Revised						

**1a. Additions**

1.6	Transfer Station waste stream management	Public Works Director and Solid Waste Committee	Improve facility and educate taxpayers			Household Hazardous Waste information is posted on the town web page and the Solid Waste Committee is working towards streamlining the facility
1.7	Series of articles written for Amherst Citizen. After being published the articles are posted on the town website	Committee Chair	Educate residents		<p><b>April 13, 2004</b> Earth Day Articles  <b>June 8<sup>th</sup></b> Lawn Pesticides and Water Pollution <b>July 27<sup>th</sup></b> Buying an Using Pesticides, Read the Fine Print <b>Sept 14</b> Reduce Lawn Fertilizer Use</p>	<p>January 11<sup>th</sup> Safe Winter Driving on Limited Salt Use Roads Jan 14<sup>th</sup> Brush Up on your Winter Driving Skills. Feb 8<sup>th</sup> Article on commercial car wash verses washing in the yard.</p>

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2	Planned Activities – Progress Goals Permit Year 3
2.1	Stormwater Advisory Committee	Public Works Director and Road commissioners	Review and recommend improvements to SWMP	We are reviewing the initial report and are working on recommended improvements.	Submit recommended improvements to Conservation Commission and Planning Board for comments and feedback. Review, revise, and implement	Stormwater committee meets monthly has started identifying areas of responsibility, will oversee active summer intern.
Revised 10/04		Representation from private sector and several town boards				
2.2	Removal of potential septic hazards from Baboosic Lake	Town Administrator and Health Department	Move failed septic systems from selected summer homes to community septic system	Approval by town after public hearings, approval of additional outside funding, in the process of the bidding stage, anticipate implementation this year.	Measure improvements to water quality, and seek expansion of program.	With the cooperation of New Hampshire Department Environmental Services the main leaching field place. Force mains for 12 individual homes will be completed by fall 2005. State DES approval for 12 additional homes in the next phase. Construction anticipated next year.
Revised			Bid out in 04 implement by 05			
2.3	Catch Basin Stenciling	Public Works	Stencil priority by August of 04	The town maintains under 350 catch basins. During our annual cleaning in July, DPW staff will mark as each is cleaned	Monitor and re-stencil with public service announcement in local paper	Markings are done annually in the spring/early summer during catch basin cleaning
Revised						
2.4	HHW Collection Events	Public Works Director and Nashua Regional Planning Commission	Better participation	Currently, there are five sponsored regional collection events. The Amherst Solid Waste Committee is reviewing this program and investigating a local collection event.	Continue to track participation of the regional event and work towards a more local collection.	Amherst continues to be involved in regional collection. The approved designated collection site is in Nashua. A local regional site failed as state funding was cut. We will continue to pursue funding.
Revised						
2.5	Education Committee	Public Works Director and Solid Waste task force committee	Booth at major events on the town common	An information booth manned by volunteers during events such as Fourth of July	Consider comments received at public events and expand available information.	Education is on-going in the elementary schools, the Transfer Station, and on the web. Preparation for an information booth at 4th of July activities. As the town moves to a community access channel which should be up and running by this

Revised		This process now includes the Stormwater II Committee	Information posted at SP-2 voting in March 04			
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## 2a. Additions

2.6	Roadside Cleanup in conjunction with Earth Day	Beth Woodbury Environmental Teacher at Souhegan High School and Public Works	Remove trash and floatables from shoulders of town roads			This is cooperative effort to remove trash from the roadside using staff and public works employees. This will become semi-annual.

## 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2	Planned Activities – Progress Goals Permit Year 3
3.1	Identify and map outfalls and receiving waters	Public Works & Pennichuck Water Works	Map all outfalls using a footage measuring device and transpose onto map. Review information supplied by Pennichuck	All culverts and catch basins were marked with reflectors and delineator posts during fall 03. Additional DPW summer staff will start recording footage and relevant information and transpose it into data base and onto town tax map.	Continue measuring and mapping program	In cooperation with University of Hampshire one or two interns with computer and mapping skills should be on board by end of May.
Revised			Actual stenciling has not started yet, we plan it to start in summer 04			
3.2	Dry weather screening of outfalls for illicit connections	Public Works	Screen all outfalls by Fall of 06	Continue field screening of outfalls concurrent with footage mapping by summer staff	Continue field screening of outfalls with measuring and mapping investigate any inappropriate findings for follow-up.	Continue screening, outfall and illicit connection training is scheduled for Public Works employees this spring
Revised						
3.3	Illicit connection information	Planning Board	Bring information to the attention of Planning Board	Partner with the Amherst Planning Board with documented illicit connection discharges to formulate ordinance	Follow through with necessary ordinance to 05 town meeting approval.	Stormwater committee is still working on ordinance information for presentation to Planning Board

**4. Construction Site Stormwater Runoff Control**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities – Permit Year 2</b>	<b>Planned Activities – Progress Goals Permit Year 3</b>
4.1	Construction Storm Water Pollution Prevention Plan	Planning Board & Public Works Director	Complete review of existing construction site runoff control	Public Works has set the example by implementing a Stormwater runoff control program for its own work.	Review existing rules and regulations, make necessary adjustments to existing documents for establishing water quality benchmarks, site inspection procedures, etc	Public Works offers input to Planning Administrator after reviewing construction plans on the need for Storm water pollution prevention plans.
Revised						
4.2	Site plan review	Public Works Director, Planning Board, & Land use Manager	Take the process now in place (site plan review meeting) and put actions on paper	Create an interim policy from the site plan regulations that exist today.	Continue with interim policy and update as necessary	Department Heads meet monthly. Zoning Administrator to review plans to be included in Planning Board hearings.
Revised						
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2	Planned Activities – Progress Goals Permit Year 3
5.1	Stormwater rules and regulations for sites over 43,560 square feet	Public Works, Engineering, Planning Board	Complete review of existing MS4 maintenance procedures. Complete formal procedures manual for conducting MS4 maintenance, include record keeping forms, best management practices, etc.	Start the review process with recommendations from public works and planning. Begin drafting rules and regulations to regulate post construction Stormwater management and illicit discharges.	Draft new rules and regulations for review and initiate the process for implementation.	This is a priority of the Stormwater Committee. A meeting is scheduled between Stormwater Committee Board of Selectmen with Planning Board Representation, and Town Counsel.
Revised			We have started slowly, this looks more like an 04-05 goal			
	Incorporate Best Management Practices into Town regulation Plan	Public Works Director, Planning Board, Town Counsel & Board of Selectmen	Complete update of Town's regulations to include Best Management Practices.	Review existing Master Plan and draft recommended changes	Bring before the authority having jurisdiction for approval and implementation.	The Amherst Stormwater Committee is working on rules to be included in the town regulations. Looking at adopting NHDES best management guidance documents.
Revised						
Revised						

## 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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2	Planned Activities – Progress Goals Permit Year 3
6.1 Revised	Document and Enhance Employee Training Procedures	Public Works Director	Complete review of existing programs and update of formal employee training manual	All employees are actively involved in UNH T-2 and Public Works Academy training. Department SOP's partially completed, plan to have first draft available for review by June 2004. SWMP in draft stage, train staff on content by July 04	Continue existing training programs and integrate new training and techniques to include SWMP and pollution prevention practices.	The Town of Amherst Department Public Works hired CLD Engineer of Manchester, NH to put on a training class for highway employees
6.2 Revised	Evaluate the use of Pesticides, sand, and salt	Director of Public Works	Complete review of existing procedures. Write formal procedures manual for handling and using pesticides, sand, and salt	One employee is certified as pesticide supervisor. Within the last three years, we have integrated new technology to minimize the impact of salt and sand on roads.	Complete the learning process of calibrating winter salt and sand equipment. Purchase of two replacement vehicles with ground speed controls.	Municipal parks and grounds, including cemeteries are tested minimize spreading unnecessary amounts of fertilizers and pesticides. At March voting, taxpayers authorized purchase of second environment friendly liquid deicer.
6.3 Revised	Catch basin cleaning	Director of Public Works	Clean every catch basin at least once a year	This practice started three summers ago, each and every catch basin is cleaned yearly or more frequently if needed.	Continue with this program	Each catch basin is cleaned once a year. Catch basins are monitored additional cleaning happens when warranted.
6.4 Revised	Street sweeping	Director of Public Works	Sweep winter debris from the streets	Existing policies account for approximately one quarter of the streets picked up each spring and the rest swept to the road edge and cleaned during a ten year ditching plan	Work towards budgeting additional monies to power pickup sweep all town roads.	Street sweeping with pickup vehicles is an annual spring event. The budget process has expanded to approximately one third of town year additional monies is added increase the equipment rental.



7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2	Planned Activit – Progress on Goals Permit Year 3
Stormwater Management Position Created/staffed			
Annual program budget/ Expenditures	\$20,000	\$20,000 \$6,000	\$24,000 \$17,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	15 %		
Stormwater management committee established	Yes	Yes	Yes
Stream teams established or supported	No		supported
Shoreline clean-up participation or quantity of shoreline miles cleaned	No)		
Household Hazardous Waste Collection Days			
▪ days sponsored	5 Regional	Regional	5
▪ community participation	05%	05%	05%
▪ material collected	tons or gal		
School curricula implemented	Grammar School	Grammar School	Grammar School

**Legal/Regulatory**

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

**Mapping and Illicit Discharges**

	Progress on Goal(s) Permit Year 1	Progress on Goals Permit Year 2	Progress on Goals Permit Year 3	Progress or Permit
Outfall mapping complete			Partial 8/05	
Estimated or actual number of outfalls				
System-Wide mapping complete			Partial 8/05	
Mapping method(s)				
▪ Paper/Mylar			Paper	
▪ CADD				
▪ GIS			yes	
Outfalls inspected/screened			3	
Illicit discharges identified				
Illicit connections removed				
% of population on sewer		0%	0.0023	0.00
% of population on septic systems	(100%)	100%	99.9977%	99.99

**Construction**

	2003	2004	2005	
Number of construction starts (>1-acre)			Two	
Estimated percentage of construction starts adequately regulated for erosion and sediment control			Two	
Site inspections completed			Two	
Tickets/Stop work orders issued			0	
Fines collected			0	
Complaints/concerns received from public			0	

### Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control			50%	
Site inspections completed			50%	Pres si NHL
Estimated volume of stormwater recharged				

### Operations and Maintenance

	2003	2004	2005	
Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	1time/yr	1time/yr	1time/yr	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	1time/yr	1time/yr	1time/yr	
Total number of structures cleaned	340	345	355	
Storm drain cleaned	500 LF.			
Qty. of screenings/debris removed from storm sewer infrastructure	200 yards est.	220 yards est	240 yards est.	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		recycle	recycle	
Cost of screenings disposal				

	2003	2004	2005	
Average frequency of street sweeping (non-commercial/non-arterial streets)	1time/yr	1time/yr	1time/yr	
Average frequency of street sweeping (commercial/arterial or other critical streets)	1time/yr	1time/yr	1time/yr	
Qty. of sand/debris collected by sweeping	lbs. or tons			
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	location		Beneficial usage	
Cost of sweepings disposal			\$8,000	
Vacuum street sweepers purchased/leased				Not g
Vacuum street sweepers specified in contracts		Outside hire	Outside hire	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)				
▪ Fertilizers			Tested for proper usage	
▪ Herbicides			Tested for proper usage	
▪ Pesticides			Tested for proper usage	

Anti-/De-Icing products and ratios All paved roads are treated with a 50/50 mix. Half of our equipment has ground speed controls, and pre-wetting tanks and one small truck is equipped with straight liquid deicing (50% mag chloride, 50% distillers brew) Ice-be-gone. All dirt roads are treated with one hundred percent ledge sand.	50 % NaCl 10 % CaCl <sub>2</sub> 03 % MgCl <sub>2</sub> % CMA % Kac % KCl 50 % Sand	50 % NaCl 10 % CaCl <sub>2</sub> 03 % MgCl <sub>2</sub> % CMA % Kac % KCl 50 % San	
Pre-wetting techniques utilized	(yes)	Yes	
Manual control spreaders used	(yes)	Yes	

	2004	2005	
Automatic or Zero-velocity spreaders used	yes	Yes	
Estimated net reduction in typical year salt application	Unknown at this time	We are able to keep status quo in spite of increased traffic loads	We are able to keep status quo in spite of increased traffic loads
Salt pile covered in storage shed	yes	yes	yes
Storage shed(s) in design or under construction	n/a		New design