

Municipality/Organization: Town of Lincoln

EPA NPDES Permit Number: MAR041043

MaDEP Transmittal Number: W- 035460

**Annual Report Number
& Reporting Period:** No. 1: March 03-March 04

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Timothy Higgins

Title: Town Administrator

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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: Timothy S. Higgins

Title: Town Administrator

Date: _____

Part II. Self-Assessment

The Town of Lincoln has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions:

- Part I. B. 2. (e) Stormwater outfalls still need to be located and mapped prior to submitting the data to USFWS for a determination whether these outfalls have any adverse impact on Federally listed rare and endangered species. However at this time there are no Federally listed species found within Lincoln or in any of the communities immediately surrounding Lincoln.
- Part I. B. 2. (g) Stormwater outfalls still need to be located and mapped prior to submitting the data to the State Historic Preservation Officer for a determination whether these outfalls have any adverse affect on properties listed on the National Register of Historic Places. It is not anticipated that any Lincoln outfalls will negatively impact historic properties.
- Part I. C. & D. Elm Brook, that has its headwaters in Lincoln, is a State listed Water Quality Impaired Water and it has TMDLs for bacterial pathogens and turbidity. The Town still needs to assess the water quality of the outfalls into this system and needs to undertake education of residents within this watershed on proper septic system maintenance.
- Part II. C. In order to address the impacts of stormwater in Lincoln on public drinking water supplies we need to locate our stormwater outfalls. Once this is done we will be able to assess the situation and determine if there are ways to improve drinking water supply protection.
- Part II. F Annual report was not submitted on or before May 1, 2004. Submitted on November 10, 2004.

Lincoln realizes that we have been slow to initiate some of the requirements of the NPDES Small MS4 General Permit. One of the obstacles has been the level of staffing for the Town. We have no engineering or surveying staff to assist in our efforts. Some recent changes will help in this regard. Halfway through this permit period a newly created position of Town Planner was staffed.. In 2005 it is anticipated that an engineer will be hired to head up the Department of Public Works. Both of these staff members will help out significantly on stormwater issues as we move ahead in the future. In addition the Town has recently purchased GIS software and this will enable us to better locate and track our stormwater infrastructure.

Part III. Summary of Minimum Control Measures (measures for years 3-5 not included here)

1. Public Education and Outreach

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
1-A	Stormwater Flyer for Residents	SuAsCo ConCom	Flyer distributed to a minimum of 75% of residents. Compile survey results.	The SuAsCo (Sudbury, Assabet, Concord Rivers) Watershed Community Council produced the fliers and the ConCom distributed them via the Town Warrant mailing to all 2945 residential households.	Mailing was done in March 2003- results need to be compiled.
1-B	Stormwater Lesson Plan	SuAsCo ConCom	Distribute lesson plan to all 5 th grade teachers and use in at least one classroom	N/A Year 1	SuAsCo will develop lesson plan and ConCom staff will help teachers with plan.
1-F	Lincoln Specific Stormwater Flyers	ConCom	Distribute along with SuAsCo brochure.	It was decided that this would be redundant. Good information is in the sent brochure and it has Lincoln specific information in it.	N/A
1-I	Education via Newspaper Articles	ConCom	Write at least one article per year	N/A Year 1	Write and publish stormwater article.
1-J	Education via the Internet	ConCom	Provide stormwater information and links on Town website	N/A Year 1	Write stormwater overview and status report on NPDES MS4 permit for posting on web. Provide links to local, state, and federal websites.

2a. Additions

1-K	Green Fair	ConCom Rural Land Foundation	Annual fair with vendors and groups providing education on environmentally friendly products.	Held 2 nd annual Green Fair. Reached hundreds of residents with information on reducing or eliminating the use of hazardous home and lawn products.	Continue with 3 rd annual Green Fair. Increase the number of vendors, organizations, and public participants.
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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
2-A	Stormwater Traveling Display	SuAsCo ConCom	Have Display out for 3 months, including 3 locations	Stormwater display out for public viewing at Town Hall, Town Meeting, and the Green Fair. Display out for a total of 4 months.	Show Display in at least 2 new locations.
2-B	Stormwater Poster Contest for Fifth Grade Students	SuAsCo ConCom	Hold Poster contest	N/A Year 1	Hold contest, judge entries, display posters.
2-F	Annual Public Meeting on NPDES Plan and Report	Town Administrator	Hold Public Meeting by February 2004	Meeting not held.	Get on track for regular annual public meetings for NPDES.
2-G	Watershed Group Involvement	ConCom Local Groups	Continue ongoing activities to protect the health of our watersheds.	ConCom partnered with Town of Concord for 4 th consecutive year on water chestnut removal. Valley Pond Association put 39 acres of land into a Conservation Restriction protecting the Stony Brook Watershed that feeds into Cambridges' drinking water supply.	Continuing outreach and action by groups including the Lincoln Land Conservation Trust, the Rural Land Foundation, and local rivers groups.
2-H	Involve Lincoln Children's Groups in Public Outreach	ConCom	Have one or more groups help distribute or display stormwater educational materials.	N/A Year 1	Contact local Scouting Troops and get one or more to participate in getting the word out on stormwater.

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
3-A	Illicit Discharge Bylaw	Highway Board of Health	Initial discussions and review of regulations	Gathered and reviewed model bylaws. Board of Health continues to review and permit all septic system maintenance and construction.	Continue to research bylaws and develop a draft bylaw with input from and outreach to municipal officials, Lincoln residents, developers, and contractors.
3-B	Storm Drain Map	Highway Town Administrator	Compile existing plans and data. Find, GPS survey, and map outfalls and waterbodies	Catchbasins mapped on paper. Research done into best way for Town to get into GIS mapping.	Purchase ESRI GIS software and use for mapping. Concentrate field efforts on locating all outfalls in surface and groundwater protection zones. Coordinate work with Cambridge Water Department.
3-C	Illicit Discharge Detection and Elimination Plan	Highway	Determine priority areas and discuss plan. Visually screen outfalls during dry weather.	Priority areas determined to be the Tower Road wellhead protection zones A and B and Flint’s Pond and Cambridge Reservoir surface water protection Zones 1 and 2. Outfalls still need to be field located. Household hazardous waste dropoff days sponsored by Town on 8 occasions.	Commence visual monitoring of outfalls in priority areas. Continue with household hazardous waste dropoff program.
3-D	Illicit Discharge Education for General Public and Businesses	ConCom Planning	Include illicit discharge education information in fliers.	SuAsCo stormwater flier that was distributed to all households had information. ConCom brochures distributed on how to reduce lawn and yard pesticide and chemical fertilizer use.	Work on homeowner education on proper septic system monitoring and maintenance. Have Planning Board consider requiring “Do Not Dump” catch basin castings.
3-D	Illicit Discharge Education for Municipal Employees	Highway Fire Department	Start ongoing training in year 2.	Fire Department continued their training in spill prevention and containment.	Initiate employee training in illicit discharge detection and elimination.

4. Construction Site Stormwater Runoff Control

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
4-A	Construction Site Runoff Bylaw	Planning ConCom	Initial Discussions and review of existing and model bylaws.	Gathered and reviewed model bylaws. Assessed current local and state regulations. Construction site runoff controlled on sites within 100 feet of wetlands through ConCom permitting.	Continue to research bylaws and develop a draft bylaw with input from and outreach to municipal officials, Lincoln residents, developers, and contractors.
4-B	BMPs for Construction Site Erosion, Sediment, and Waste Controls	Planning ConCom	Assess existing BMPs and brainstorm proposed BMPs.	Reviewed existing BMPs used in construction projects and examined BMPs in EPA and MA DEP Erosion and Sedimentation Control Manuals.	Prepare draft of BMPs for use in draft construction site runoff bylaw.
4-C	Construction Site Plan Review Procedures	Planning ConCom	Assess existing review procedures and brainstorm proposed.	Planning Board and ConCom both currently review construction site plans. Both are considering how to best incorporate a new bylaw into the existing permitting framework.	Prepare draft of procedures be included in the draft bylaw.
4-D	Construction Site Inspection and Enforcement Procedures	Planning ConCom	Assess existing inspection and enforcement procedures and brainstorm proposed.	Review of existing procedures complete. Planning and Conservation staff monitor construction sites as does the Building Inspector.	Prepare draft of procedures to be included in the draft construction site runoff bylaw.
4-E	Response to Public Stormwater Hotline	Highway ConCom	Assess and brainstorm procedures for hotline.	Hotline established. Conservation Department phone during working hours and Public Safety Dispatcher during other hours (who can then directly contact the Conservation Staff).	Continue to advertise “stormwater hotline”. Do one newspaper article.

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
5-A	Post-Construction Site Runoff Bylaw	Planning ConCom	Initial discussions; review current local/state regulations; review proposed samples	Sample bylaws gathered and reviewed for possible use in Lincoln. Reviewed current regulations in place including site plan and subdivision regulations and wetlands regulations.	Develop draft bylaw and involve and educate public, municipal officials, developers, and contractors.
5-B	Choose Structural and Non-structural BMPs	Planning ConCom	Assess existing BMPs and brainstorm proposed for new bylaw	Assessed current BMPs and started researching additional BMPs for bylaw. Continued enforcing current BMPs as shown on 5-year NPDES Stormwater Phase II Compliance Plan.	Prepare draft of BMPs to include in new bylaw. The public will be involved in this and we will review design standards for site and subdivision projects.
5-C	Long-Term BMP Operation and Maintenance Procedures	Planning ConCom	Assess existing Operation and Maintenance Plan Procedures and brainstorm proposed	We reviewed what is currently in place and researched possible changes for a new bylaw. OMPs are currently required under DEP Stormwater Management Regulations for projects requiring a Stormwater Management Plan.	In year 2 we will prepare a draft of what to include in a new bylaw.
5-D	Structural BMP Implementation Procedures	Planning ConCom	Assess existing and brainstorm proposed structural BMP procedures, including pre-construction review, inspections during construction, and post-construction maintenance.	Assessed current structural BMP implementation standards and began planning for bylaw.	Prepare draft of structural BMP implementation standards to be include in the new bylaw.

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
6-A	Employee Training to Prevent/Reduce Stormwater Pollution	Highway Fire Department	Assess who, when, and what topics to address; create schedule and checklist	Highway Department has not initiated this training planning. Fire Department continues ongoing spill prevention and cleanup training.	Plan out schedule for Highway training. Include illicit discharge detection and prevention in this.
6-B	Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls	Highway	Assess existing controls, maintenance activities, schedules, and long-term inspection procedures	Annual catchbasin cleaning completed. Began assessment of existing maintenance/inspection of storm drainage system.	Develop draft new/improved activities, schedules, and procedures.
6-C	Pollutant Source Reduction/Elimination from Municipal Facilities and Activities	Highway	Assess existing facilities, activities, and BMPs and start consideration of additional or improved BMPs	A precursory assessment of the status of the Town's current operation has been done but a more in depth study is needed.	Continue to assess current status of municipal activities and facilities. Develop draft BMPs for municipal sites and activities.
6-D	Waste Disposal Procedures from Storm Sewers and Municipal Facilities/Activities	Highway	Assess existing waste disposal procedures, review MA guidelines, brainstorm improved and new procedures	Currently catchbasin cleanings have been composted at the Highway Department Facility.	Develop draft procedures for waste disposal from storm sewers and municipal facilities and activities.

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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
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)	
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

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

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)	