



Department of Public Works
The Town of Ludlow, Massachusetts

05

April 27, 2005

U. S. Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, MA 02114

RE: Town of Ludlow – MA041014
MS4 Phase II Annual Report
Permit Year II

Dear Sirs/Madams

Enclosed please find a copy of the NPDES Phase II Small MS4 Annual Report for the Town of Ludlow.

Sincerely,

Paul Dzubek, P.E.
Director of Public Works

Cc: U.S. EPA Water Technical Unit

Municipality/Organization: Town of Ludlow

EPA NPDES Permit Number: MA041014

MaDEP Transmittal Number: W-036097

**Annual Report Number
& Reporting Period: No. 2: May 1, 2004 – April 30, 2005.**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Paul Dzubek

Title: Director of Public Works

Telephone #: 413-583-5625 x 15

Email: pdzubek@ludlow.ma.us

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:

Thomas Haluch

Printed Name: Thomas Haluch

Title: Chairman, Board of Public Works

Date:

Part II. Self-Assessment

The Town of Ludlow has completed the required self-assessment of compliance with the Phase II Stormwater Program. In accordance with the NPDES Phase II Stormwater requirements, the following topics were evaluated for the completion of the Annual Report:

1. Compliance with the Phase II Permit Conditions

The Town of Ludlow has met the eligibility criteria for “listed species” and critical habitats set forth in the NPDES Small MS4 General Permit. A letter dated March 17, 2005 from the Massachusetts Division of Fisheries and Wildlife, states the Natural Heritage and Endangered Species Program (NHESP) has no record of federally listed species located in the Town of Ludlow.

In addition, the Town identified the location of properties listed in the National Register of Historic Places. It has been determined that one of the two federally listed historic properties is located within the path of the Towns stormwater system (MS4). However, the discharges do not affect the historic property nor is the construction of BMPs being planned to control the discharges. Therefore, the Town has met the eligibility criteria set forth in the NPDES Small MS4 General Permit. In the event that construction activities are planned, care will be taken to limit any adverse effects on the historical site during future activities. A written agreement will be made with the appropriate State Historical Preservation Officer which will outline the measures the applicant will follow to mitigate or prevent adverse effects.

2. Appropriateness of the Selected BMPs
3. Progress Towards Achieving the Program’s Measurable Goals
4. Results of Any Information that has been Collected and Analyzed
5. Activities for the Next Reporting Cycle
6. Changes in Identified BMPs or Measurable Goals

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
1a. Revised	Create website links.	DPW	Post links to EPA & DEP stormwater information.	Links to DEP and EPA Stormwater information posted on Town of Ludlow website and DPW website.	Update links as necessary and continue EPA and MA DEP stormwater information links.
1b. Revised	Make Stormwater Management Plan available.	DPW	Have Plan copies available at Town Hall, Library, & DPW.	The plan is available.	Keep copies of the plan available & update as necessary.
1c. Revised	Use Arbor Day for publicity.	DPW	Distribute stormwater information	A proclamation with a stormwater message was published & posted.	Use this annual event for distribution of stormwater information. Document # of participants.
1d. Revised	Hold a household hazardous waste collection day.	DPW	One collection per year.	A household hazardous waste day was held in September 2004.	Hold a household hazardous waste collection in the fall. Document # of participants.
1e. Revised	Cable access bulletins.	DPW	Air 4 bulletins per year.	Bulletins aired April.	Continue to run bulletin and update with upcoming stormwater related events
Revised					

1a. No additions at this time.

2. Public Involvement and Participation

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
2a. Revised	Form a stormwater committee.	Selectmen	Begin meeting	Stormwater Committee held a meeting in February 2005	Continue to hold committee meetings bi-annually. Post meeting minutes on DPW website
2b. Revised	Develop storm water bylaws.	Stormwater Committee	Public hearing held.	Draft bylaw developed.	Public Hearing to be held prior to at October 2005 Town Meeting
2c. Revised	Develop a catch basin stenciling program.	DPW	Number of catch basins stenciled.	Stenciling program developed and volunteers recruited to conduct stenciling in May-June 2005, starting at the Chicopee River.	Begin stenciling program and recruit more volunteers. Stencil next highest priority location, Minnechog Pond and Haviland Pond.
2d. Revised	Town Meeting consideration of bylaws	Board of Selectman	Recorded vote of Town Meeting	Draft bylaw developed.	Draft bylaw to be placed on October 2005 Town Meeting warrant
Revised					

2a. Additions

2e	Scout Outreach	DPW	Conduct two Informational Meetings per year.		Recruit scout troop(s) to deliver educational materials to community members during scouting activities
----	----------------	-----	--	--	---

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
3a.	Draft a drainage system bylaw	Stormwater Committee	Draft bylaw ready for Town Meeting in year 2.	Draft bylaws developed.	Submit bylaw to October 2005 Town Meeting for consideration.
Revised					
3b.	Map the MS4.	DPW	Completed map.	Continue to update map as additional segments are added. Continue field verification and inspection project.	Continue map updates and outfall and receiving water inspections to identify high priority area.
Revised					
3c.	Develop & implement a system to find and remove illicit discharges (Illicit Discharge Elimination Program)	DPW	All outfalls checked by end permit term. Misconnections removed recorded. Ongoing rotation of inspections scheduled.	IDEP in development stage. Outfalls inspected at random.	Submit draft IDEP to applicable town departments for review. Continue outfall inspections.
Revised					
Revised					
Revised					

3a. Additions

3d	Accidental Spill Prevention - Sight Distance Improvement	DPW	Reduce one sight distance hazard per year.	Removed sight distance hazard on Kendall St	Continue sight distance mitigation. Increase sight distance on one vertical curve, if feasible.
----	--	-----	--	---	---

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
4a	Develop construction site runoff control regulations	Stormwater Committee	Interdepartmental policy in place.	Draft bylaw has been developed.	Further develop bylaw to include enforcement procedures. Draft bylaw to be submitted to Town Meeting for consideration October 2005.
Revised	-----	-----	-----	-----	-----
Revised	-----	-----	-----	-----	-----
Revised	-----	-----	-----	-----	-----
Revised	-----	-----	-----	-----	-----

4a. Additions

4b	Multi-Departmental Pre-Project Release Form	Building Department	Institute Multi-Department Release Form		Develop release form on which all town departments must sign prior to issuance of building permit.
----	---	---------------------	---	--	--

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
5a.	Adopt bylaw.	Stormwater Committee	Prepare for Town Meeting.	The Stormwater Committee has met to develop, discuss, and review draft bylaws in February	Draft bylaw to be submitted to Town Meeting for consideration, October 2005.
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

5a. Additions

5b	Detention/Retention/ Infiltration Basin Inspections	DPW	Inspection Log		Develop inspection program for all detention, retention, and infiltration basins to ensure proper function during future storm events.
----	---	-----	----------------	--	--

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
6a.	Clean catch basins.	DPW	Clean all catch basins once per year.	All catch basins were cleaned.	All catch basins will be cleaned.
Revised					
6b.	Sweep streets	DPW	Sweep all streets	All streets were swept.	All streets will be swept subject to funding.
Revised					
Revised					
Revised					
Revised					
Revised					

6a. Additions

6b.	Municipal Employee Training Program	DPW	Institute a Stormwater Awareness Program for all Public Works employees		Conduct two stormwater awareness workshop per year for DPW employees
6c.	Municipal Facility Assessment	DPW	Develop detailed map of all municipal facilities, identify receiving waters, conduct clean up operations of all facilities		Begin mapping program for each municipally owned facility.
6d.	Management Education	DPW	Remain up-to-date with current Stormwater policies and regulation		Attend Stormwater management classes and/or seminars, 2 per year minimum.

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
7a.	Map drainage to Minechoag Pond.	DPW	Document drainage to pond & identify all possible sources.	The drainage to Minnechoag Pond has been mapped.	Investigate potential pollutant sources. Develop BMP once sources are identified.
Revised					
7a-1	Reconstruct drainage system to Minnechoag Pond from East Street.	DPW	Reduce sediment load reaching the pond from a major street via flow from a substantial discharge	Contract awarded to Bryant Associates of Amherst, MA. for design of drainage improvements to Minnechoag Pond.	Work closely with consultant to design the drainage system to remove sediment load to Minnechoag Pond. Secure funding for drainage improvements construction.
Revised					
Revised					
Revised					
Revised					

7a. No additions at this time

Part IV. Summary of Information Collected and Analyzed

No significant amount of information has yet been collected

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	No	
Annual program budget/expenditures	~\$40,000	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	150	
Stormwater management committee established	Yes	
Stream teams established or supported	No	
Shoreline clean-up participation or quantity of shoreline miles cleaned	No	
Household Hazardous Waste Collection Days		
▪ days sponsored	1	
▪ community participation	5	
▪ material collected	800 gal	
School curricula implemented	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		X		
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management		X		

Mapping and Illicit Discharges

Outfall mapping complete	60%	
Estimated or actual number of outfalls	~200	
System-Wide mapping complete	95%	
Mapping method(s)		
▪ Paper/Mylar	100%	
▪ CADD	50%	
▪ GIS	50%	
Outfalls inspected/screened	~10	
Illicit discharges identified	0	
Illicit connections removed	0	
% of population on sewer	60%	
% of population on septic systems	40%	

Construction

Number of construction starts (>1-acre)	~13	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	100%	
Site inspections completed	~60	
Tickets/Stop work orders issued	1	
Fines collected	\$0	
Complaints/concerns received from public	~5	

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	(# or %)	
	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	1 time/yr	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	1 time/yr	
Total number of structures cleaned	~1000	
Storm drain cleaned		
Qty. of screenings/debris removed from storm sewer infrastructure	~1200 yd	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	Landfill	
Cost of screenings disposal	\$	

Average frequency of street sweeping (non-commercial/non-arterial streets)	1 time/yr	
Average frequency of street sweeping (commercial/arterial or other critical streets)	1time/yr	
Qty. of sand/debris collected by sweeping	~900 yd	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	Compost	

Cost of sweepings disposal	\$25,000	
Vacuum street sweepers purchased/leased	1	
Vacuum street sweepers specified in contracts	Yes	

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	45% NaCl 5% CaCl ₂ 0% MgCl ₂ 0% CMA 0% Kac 0% KCl 50% Sand	
Pre-wetting techniques utilized	Yes	
Manual control spreaders used	Yes	
Automatic or Zero-velocity spreaders used	No	
Estimated net reduction in typical year salt application	0	
Salt pile(s) covered in storage shed(s)	Yes	
Storage shed(s) in design or under construction	No	