

**Municipality/Organization:** Town of Ludlow

**EPA NPDES Permit Number:** MA041014

**MaDEP Transmittal Number:** W-036097

**Annual Report Number  
& Reporting Period:** No. 3: May 1, 2005-April 30, 2006

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MAY 10 2006

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** Paul Dzubek **Title:** Director of Public Works

**Telephone #:** (413) 583-5615, ext. 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 – Ludlow Board of Public Works

**Date:** 5/1/06

## **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
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

The results of the self-assessment concluded that the Town of Ludlow is in compliance with the Phase II Stormwater Program.

**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 3 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities - Permit Year 4</b>
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 and posted. (Approximately 60 students received information on 4/28.)	Use this annual event for distribution of stormwater information.
1d. Revised	Hold a household hazardous waste collection day.	DPW	One collection per year.	A household hazardous waste day was held in September 2005. 27 Ludlow Residents participated in a regional event in September.	Document # of participants. A household hazardous waste collection day is scheduled for September 2006.
1e. Revised	Cable access bulletins.	DPW	Air 4 bulletins per year.	Bulletins aired May, July, September & March	Document # of participants. Continue to run bulletin and update with upcoming stormwater related events.
Revised					

**1a. Additions**

1f. Revised	Door hanger Distribution	DPW	Distribute Stormwater Info 1 time/yr	Distributed ~500 stormwater information door hanger	Plan day & recruit volunteers to distribute door hangers
1g. Revised	Scout Outreach	DPW	Conduct two Informational Meetings per year	Information meetings were conducted with two boy scout/cub scout packs. Meetings conducted in June and August 2005.	Hold at least two informational seminars/meetings with boy scout/girl scout groups during the summer months. Continue Information meetings were conducted with two boy scout/cub scout packs.

Please note Item 1g was previously 2e. Based on the results of activities conducted in Permit YR II the activities were adjusted to the appropriate locations.

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
2a. Revised	Form a stormwater committee.	Selectmen	Begin meeting.	Stormwater Committee held three meetings in YR III.	Continue to hold regular committee meetings. Post meeting minutes on DPW website.
2b. Revised	Develop stormwater bylaws.	Stormwater Committee	Public hearing held.	Public Hearings for General Stormwater Management Bylaw held September 20, 2005. Five residents attended.	Hold public hearings in August/September 06 to revise/update general bylaw for October 2006 Town meeting.
2c. Revised	Develop a catch basin stenciling program.	DPW	Number of catch basins selected.	Stenciling program developed. Approximately 500 cabins stenciled.	Continue stenciling program and recruit volunteers.
2d. Revised	Town Meeting consideration of Bylaws.	Selectmen	Recorded vote of Town Meeting.	Draft bylaw adopted October 2006.	Revise/Update bylaw as necessary.
2e. Revised	Scout participation	DPW	Organize Day for Scout Participation	DPW worked with local scout group to distribute information and stencil storm drains during August & September 2005.	Continue to recruit scout troop(s) to deliver educational materials to community members during scouting activities.
Revised					

### 2a. Additions

No additions at this time.

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
3a. Revised	Draft a drainage system bylaw.	Stormwater Committee	Draft bylaw ready for Town Meeting in year 2. Record Vote	Draft bylaws was developed through a Smart Growth Technical Assistance Grant. Not placed on October 2005 Town meeting. No vote taken	Submit bylaw to October 2006 Town Meeting for consideration.
3b. Revised	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.
3c. Revised	Accidental Spill Prevention -- Sight Distance Improvement	DPW	Reduce one sight distance hazard per year	Design plans completed for West St Sight Distance Improvement Project.	Construction of West St Sight Distance Improvement Project slated to begin June 2006.  Compete design of sight distance improvement for street with greatest traffic volumes and major trucking routes.
Revised					
Revised					
Revised					

### 3a. Additions

No additions at this time.

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
4a. Revised	Develop construction site runoff control regulations.	Stormwater Committee	Interdepartmental policy in place	General Stormwater Bylaw adopted in October 2005. Encompasses development construction activities.	Revise/update bylaw to include more stringent enforcement options for violations.
4b. Revised	Multi-Departmental Pre-Project Release Form	Building Department	Institute Multi-Department Release Form	Draft form adopted in October 2005.	Revise/update development form as needed.
Revised					
Revised					
Revised					
Revised					
Revised					

#### 4a. Additions

4c. Revised	Pre-Construction Stormwater Permit	Planning Department	Record number of Permits Filed	Stormwater Permit process developed and implemented October 2005. Nine permits filed and reviewed since implementation.	Continue to review permits and site plans for adequate stormwater controls for any construction activity.
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**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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
5a. Revised	Adpot bylaw.	Stormwater Committee	Prepare for Town Meeting.	Revise General Stormwater Bylaw adopted in October 2005. Encompasses development construction activities.	Revise/update bylaw to include more stringent enforcement clauses for violations.
5b. Revised	Detention/Retention/Infiltration Basin Inspections	DPW	Inspection Log	Due to budget constraints no activities completed in Permit YR III.	Develop inspection program for all detention, retention, and infiltration basins to ensure proper function during future storm events.
Revised					
Revised					
Revised					
Revised					

**5a. Additions**

**No additions at this time.**



## 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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
6a. Revised	Clean catch basins.	DPW	Clean all catch basins once per year.	All catch basins were cleaned.	All catch basins will be cleaned.
6b. Revised	Sweep streets.	DPW	Sweep all streets.	All streets were swept.	All streets will be swept subject to funding.
6b. Revised	Municipal Employee Training Program.	DPW	Institute a Stormwater Awareness Program for all Public Works Employees.	One public awareness training seminar held in September 2005.	Continue to conduct at least two stormwater awareness workshop per year for DPW employees.
6c. Revised	Municipal Facility Assessment	DPW	Develop detailed map of all municipal facilities, identify receiving waters, conduct clean up operations of all facilities.	DPW yard area plan developed. Additional municipal facility mapping in progress.	Continue mapping program for each municipally owned facility.
6d. Revised	Management Education	DPW	Remain up-to-date with current Stormwater policies and regulation.	At least two stormwater seminars attended by all staff.	Attend Stormwater management classes and/or seminars, 2 per year minimum.
Revised					

**6a. Additions**

6e.	Truck Wash	DPW	Construct Truck Wash facility		Plans will be developed to provide an updated truck wash facility. Construction to begin in late 2006/early 2007
6f.	Catch Basin Replacement	DPW	Document No. of Catch Basins Replaced		Replace existing non deep sump, non-hooded catch basin with deep sump and hood catch basins throughout urbanized area.

**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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
7a.	Map drainage to Minnechoag 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.	25% design plans completed and sent to MassHighway Department for review. Confirmation of funding received through state legislature. Environmental Permitting Completed by MassDEP	Continue Work closely with consultant to design the drainage system to remove sediment load to Minnechoag Pond.
Revised					
Revised					
Revised					
Revised					
Revised					

**7a. Additions**

No additions at this time.

**7b. WLA Assessment**

**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	~\$45,000	

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	1500	
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	21	
▪ material collected	525 gal.	
School curricula implemented	No	

**Legal/Regulatory**

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

**Mapping and Illicit Discharges**

Outfall mapping complete									
Estimated or actual number of outfalls								60%	
System-Wide mapping complete								~200	
Mapping method(s)								95%	
▪ 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)	~20
Estimated percentage of construction starts adequately regulated for erosion and sediment control	100%
Site inspections completed	~100
Tickets/Stop work orders issued	1
Fines collected	\$0
Complaints/concerns received from public	~10

**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)	1 times/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	1 times/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 times/yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	1 times/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 <sub>2</sub> 0% MgCl <sub>2</sub> 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



Department of Public Works  
The Town of Ludlow, Massachusetts

May 1, 2006

MAY 10 2006

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 III

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: Division of Watershed Management