Municipality/Organization: **Town of Ludlow**

EPA NPDES Permit Number: **MA041014**

MaDEP Transmittal Number: **W-036097**

Annual Report Number
& Reporting Period: No. 5: May 1, 2007-April 30, 2008

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, 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:

Printed Name: Carlos Chaves

Title: Chairman – Ludlow Board of Public Works

Date: 4/29/08

Part II. Self-Assessment

The Town of Ludlow has completed the required self-assessment of compliance with the Phase II Stormwater Management 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

Regulatory Mechanisms

The Town of Ludlow adopted a General Stormwater Bylaw at the October 2005 Special Town Meeting, Article 18, amended at the October 2006 Special Town Meeting, Article 24. The Bylaw provides mechanisms that 1) prohibit non-allowable, non-stormwater discharges to MS4s; 2) require sediment and erosion control at construction sites; and 3) control post-construction stormwater runoff from development or redeveloped parcels. A copy of the adopted bylaw was provided in permit year IV annual report.

Public Education and Outreach

Since joining the Connecticut River Clean-Up Committee – Stormwater Subcommittee (CRCC-SC) in 2005, the Town of Ludlow has participated in a regional media marketing campaign to educate residents about stormwater. Attachment A of this report contains details of public education and outreach programs accomplished by the CRCC-SC and the Town of Ludlow. The attachment details activities completed during permit years IV and V.

Illicit Discharge Programs

As outlined in Permit Part II.B.3., the Town of Ludlow has completed its storm sewer system map (100%) in a GIS format and, as mentioned above, Ludlow adopted regulatory mechanisms to prohibit non-stormwater discharges to its MS4. It was anticipated that an illicit discharge detection and elimination plan (IDDE) would be completed in permit year V, however, due to lack of funds, Ludlow has not yet developed and/or implemented said plan. The IDDE plan is anticipated to be completed during permit year VI.

Outfall Mapping Requirement

The Town of Ludlow completed the outfall mapping requirement. Attachment B contains Ludlow's recently developed MS4 map, which includes catch basins, drainage manholes, pipe segments, stormwater ponds, bmps, and outfalls; all mapped in a GIS database. The database was developed to allow for tracking the frequency of maintenance operations.

It should be noted that some portions of the Town of Ludlow MS4 is interconnected with the MS4 owned and operated by the Massachusetts Turnpike Authority. A total of eight (8) outfalls are located on property with limited access and have stormwater contributions from both the Town of Ludlow and MTA. Therefore, assessing and maintaining these outfalls cannot be accomplished without relying on the MTA.

Certification of Eligibility – Endangered Species Act (ESA) and National Historic Preservation Act (NHPA)

The Town of Ludlow complied with this requirement of the permit during permit year II and was detailed in the annual report.

Discharges into Water Quality Impaired Waters

According to the *Massachusetts Year 2004 Integrated List of Waters*, published by MassDEP, water bodies is Ludlow are categorized as the following: Category 2 Haviland Pond, Red Bridge Impoundment, and Springfield Reservoir; Category 3 Harris Pond and Murphy Pond; Category 4a Minnechoag Pond; and Category 5 Alden Pond and Chicopee River. In addition, the *2004 Integrated List of Waters* lists Minnechoag Pond as the only water body covered by a TMDL within Ludlow. Currently the MS4 operated by the Town of Ludlow discharge directly into Murphy Pond, Haviland Pond, Minnechoag Pond, and the Chicopee River with two (2), one (1), two (2) and seven (7) discharges respectively.

The Town of Ludlow received a s319 grant from the MassDEP to reduce primary pollutants for one of the seven discharges into the Chicopee River. Currently the design of said BMP project is being conducted. The project will include a series of offline infiltration structures located within the paved roadway, as well as a detention/infiltration facility located on Town owned land abutting the Chicopee River. It was anticipated the construction would occur during permit year V, however, delays in the design process have resulted in a construction timeline setback to 2009.

Discharges into Waters with Approved Total maximum Daily Load Allocations

The Town of Ludlow's MS4 discharges to Minnechoag Pond for which a TMDL has been approved. Ludlow currently has design plans completed for the reconstruction of a portion of the drainage system discharging to Minnechoag Pond. The drainage improvement project will be constructed in concert with a roadway/intersection improvement project, both of which are being funded by the Commonwealth of Massachusetts. However, due to delays in the roadway design portion of the project, the project has yet to be solicited for public bids. Therefore, construction and implementation of this BMP is re-scheduled for 2009 construction season.

In addition, the Town of Ludlow conducted a preliminary watershed survey of two outfalls and other non-point source discharges to Minnechoag Pond. During the survey of the discharges, it was observed that a drainage improvement project constructed in the mid 1980's was not completed as designed and contributing approximately 51 acres of runoff from a high density residential land use. By completing the intended design, the Town of Ludlow removed the above reference runoff directly from Minnechoag Pond.

During the preliminary watershed study, the privately owned Ludlow Country Club (LCC) was identified as a potential contributor of phosphorous, the primary pollutant requiring the TMDL. The preliminary watershed study has yielded the removal of nearly 51 acres of high density residential stormwater runoff, therefore the Town of Ludlow will reassess the status of the pond during subsequent years. If necessary, a public-private partnership with the LCC will be developed to help further reduce the phosphorous loading into Minnechoag Pond.

Stressed Basins

According to the *Stressed Basins in Massachusetts* report published by the Massachusetts Water Resources Commission, the Town of Ludlow is located with in a Low Stress Basin. Therefore, the Town of Ludlow is not required to address the annual loss of recharge to groundwater. However, the Town of Ludlow requires development and redevelopment project to maximize groundwater recharge through the regulator mechanisms adopted by the Town Meeting.

Measurable Goals

As discussed above, most of Ludlow's original measurable goals were met prior to the end of permit year V and have maintained compliance each permit year. However, some BMPs added during the course of implementation of the Stormwater Management Plan, have not met the measurable goals as a result of financial constraints.

Summary

The Town of Ludlow has nearly completed all activities as presented in the Original Notice of Intent for the implementation of Stormwater Management Program. Over the past five permit years, Ludlow has also added Best Management Practices that provide further resource protection. However, in Permit Year V (May 1, 2007 thru April 30, 2008), some BMPs which were added after the initial NOI was filed were not able to be accomplished. In addition, financial limitations have resulted in failure to complete some of the original BMP's and are detailed below.

The Town of Ludlow purchased a vacuum truck for the purposes of maintaining our MS4 and sanitary sewer system. This purchase will help to meet some BMPs outlined in the Town of Ludlow's Stormwater Management Plan.

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
1a.	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.
Revised					
1b.	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.
Revised					
1c.	Use Arbor Day for publicity.	DPW	Distribute stormwater information	A proclamation with a stormwater message was published and posted. (Approximately 75 students will be receiving information on 5/2/08.)	Use this annual event for distribution of stormwater information. Document # of participants.
Revised					
1d.	Hold a household hazardous waste collection day.	DPW	One collection per year.	A household hazardous waste day was held in September 2007. 39 Ludlow Residents participated in a regional event in September.	A household hazardous waste collection day is scheduled for September 13, 2008. Document # of participants.
Revised					
1e.	Cable access bulletins.	DPW	Air 4 bulletins per year.	Bulletins aired May, July, September & March	Continue to run bulletin and update with upcoming stormwater related events.
Revised					
1g.	Scout Outreach	DPW	Conduct two Informational Meetings per year	Meetings were not able to be coordinated between DPW staff and local scout groups.	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 per year.
Revised					
1h.	Regional Public Outreach	DPW	Regional Multi-Media Campaign	See Attachment A "Connecticut River Stormwater Committee Progress Report Jan. 1 to Dec. 31, 2007 and Attachment "CRSS Progress Report Jan. 1 to Dec. 31, 2006."	Continue participation in CRSS and document outreach materials distributed.
Revised					

1a. Additions – No addition 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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
2a.	Form a stormwater committee.	Selectmen	Begin meeting.	Stormwater Committee held three meetings in YR IV to review bylaw implementation.	Continue to hold regular committee meetings. Post meeting minutes on Town of Ludlow website.
Revised					
2b.	Develop stormwater bylaws.	Stormwater Committee	Public hearing held.	Public meetings held September 2006 for revisions & additional to Ludlow Stormwater Bylaw.	Hold public hearings, as needed, to revise/update general bylaw for future Annual Town Meeting.
Revised					
2c.	Develop a catch basin stenciling program.	DPW	Number of catch basins selected.	Stenciling program developed. Approximately 500 catch basins stenciled.	Continue stenciling program and recruit volunteers.
Revised					
2d.	Town Meeting consideration of Bylaws.	Selectmen	Recorded vote of Town Meeting.	Stormwater Management Bylaw adopted Article 18 October 2005 Special Town Meeting.	Revise/Update bylaw as necessary.
Revised					
2e.	Scout Participation	DPW	Organize Day for Scout Participation	DPW was not able to coordinate Scout Participation Program.	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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
3a.	Draft a drainage system bylaw.	Stormwater Committee	Draft bylaw ready for Town Meeting in year 2. Record Vote	Language added to existing Stormwater Management Bylaw governing penalties illicit discharge connections. Voted passed: Article 24 October 2006 Special Town Meeting	Revise/update bylaw as needed.
Revised					
3b.	Map the MS4.	DPW	Completed map.	Map Completed. Continue field verification and inspection project. MTA reliance.	Continue map updates and outfall and receiving water inspections to identify high priority area.
Revised					
3c.	Accidental Spill Prevention – Sight Distance Improvement	DPW	Reduce one sight distance hazard per year		
Revised			**BMP removed from plan**		

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
4a.	Develop construction site runoff control regulations.	Stormwater Committee	Interdepartmental policy in place	General Stormwater Bylaw adopted in October 2005 Special Town Meeting, Article 18. Encompasses development construction activities.	Revise/update bylaw to include more stringent enforcement options for violations.
Revised					
4b.	Multi-Departmental Pre-Project Release Form	Building Department	Institute Multi-Department Release Form	Draft form adopted in October 2005. Use for every development project in Ludlow.	Revise/update development form as needed.
Revised					
4c.	Pre-Construction Stormwater Permit	DPW	Record number of Permits Filed	Conducted 3 permit reviews and site inspections	Continue to review permits and site plans for adequate stormwater controls for any constriction activity.
Revised			18 Permit Waivers filed and approved 3 Permits Issued		

4a. Additions - No additions at this time

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
5a.	Adopt 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.
Revised					
5b.	Detention/Retention/Infiltration Basin Inspections	DPW	Inspection Log	Developed maintenance plan of action to be accomplished in May 2008	Develop inspection program for all detention, retention, and infiltration basins to ensure proper function during future storm events.
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 5	Planned Activities – Permit Year 6
6a.	Clean catch basins.	DPW	Clean all catch basins once per year.	Catch basins were cleaned.	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					
6b.	Municipal Employee Training Program.	DPW	Institute a Stormwater Awareness Program for all Public Works Employees.	Stormwater awareness training seminar held in June and October 2006.	Continue to conduct at least two stormwater awareness workshops per year for DPW employees.
Revised					
6c.	Municipal Facility Assessment	DPW	Develop detailed map of all municipal facilities, identify receiving waters, and 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.
Revised					
6d.	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					
6e.	Truck Wash	DPW	Construct Truck Wash facility	Funding not approved thru Capital Improvement Committee in YR V	Continue to seek fund for constructing of Municipal Truck wash
Revised					
6f.	Catch Basin Replacement	DPW	Document No. of Catch Basins Replaced	Eight deep sump catch basins will be installed, Posner Cir & Edison Dr	Replace existing non deep sump, non-hooded catch basin with deep sump and hood catch basins throughout urbanized area.
Revised					

6a. Additions - No additions at this time

6g.	Vacuum Truck	DPW	Purchase Vacuum Truck to Maintain MS4	The DPW purchased and began to utilize a new Vacuum Truck to maintain the MS4	Utilize Vacuum Truck to maintain MS4 including cleaning drain lines and catch basins.
Revised					

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
7a.	Map drainage to Minnechoag Pond.	DPW	Document drainage to pond & identify all possible sources.	The drainage to Minnechoag Pond has been mapped. See narrative above.	See narrative above
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.	Public Hearing held in September 2007. 75% design plans submitted in March 2008.	Continue Work closely with consultant to design the drainage system to remove sediment/phosphorous loading to Minnechoag Pond.
Revised					

7a. Additions - No additions at this time

7b. WLA Assessment

See narrative above

Part IV. Summary of Information Collected and Analyzed

No significant amount of information has yet been collected.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures **	($)	~115,000
Total program expenditures since beginning of permit coverage	($)	283,000
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund

Education, Involvement, and Training

	(Preferred Units)	Response
Estimated number of property owners reached by education program(s)	(# or %)	10,000
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	Yes
Shoreline cleaned since beginning of permit coverage	(mi.)	0.25
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	39 households
▪ material collected **	(tons or gal)	~710 gal
School curricula implemented	(y/n)	No

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination		X			
▪ Erosion & Sediment Control	X				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

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	6
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	83
Site inspections completed **	(%)	100
Tickets/Stop work orders issued **	(#)	0
Fines collected **	(# and $)	0
Complaints/concerns received from public **	(#)	2

Post-Development Stormwater Management

	(Preferred Units)	Response
Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100
Site inspections (for proper BMP installation & operation) completed **	(%)	100
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	No
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100 paper 100 electronic
Estimated or actual number of outfalls	(#)	310
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	100
▪ CADD	(%)	0
▪ GIS	(%)	100
Outfalls inspected/screened **	(# or %)	0
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	0
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	60
% of population on septic systems	(%)	40

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1
Qty of structures cleaned **	(#)	~500
Qty. of storm drain cleaned **	(%, LF, mi.)	2000 lf
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	900 cy
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Disposal
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$92,000
• Hourly or per basin contract rate **	($/hr or $ per basin)	$190/basin
• Disposal cost**	($)	$
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	Yes
• % Structures cleaned with clam shells **	(%)	0
• % Structures cleaned with vactor **	(%)	100
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	1
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	850cy
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Compost
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	~$42,000
• Hourly or lane mile contract rate **	($/hr. ln mi.)	$190/mile
• Disposal cost**	($)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	Yes

Operations and Maintenance (cont)

• % Roads swept with rotary brush sweepers **	%	90
• % Roads swept with vacuum sweepers **	%	10
Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	60 5 35
Pre-wetting techniques utilized **	(y/n or %)	Yes
Manual control spreaders used **	(y/n or %)	Yes
Zero-velocity spreaders used **	(y/n or %)	No
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Yes

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	None
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	None
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	None

Attachment A

Connecticut River Stormwater Committee Progress Report
January 1 to December 31, 2007

Connecticut River Stormwater Committee Progress Report
January 1 to December 31, 2006

CONNECTICUT RIVER STORMWATER COMMITTEE
PROGRESS REPORT
JANUARY 1 TO DECEMBER 31, 2007

The Connecticut River Stormwater Committee joined the Think Blue Coalition in 2007. The Think Blue Coalition is an ad-hoc committee of 24 organizations formed to develop an effective campaign to address water pollution from stormwater runoff. Originally formed in 2006 by the Massachusetts Bays Estuary Program, the Think Blue campaign developed a marketing campaign centered around the "Think Blue" brand. Public outreach materials developed as part of the campaign are available to coalition members. More information about the coalition can be viewed on their website at www.ThinkBlueMA.org .

The campaign is primarily focused on coastal zone of the greater Boston area with the intention of bringing the campaign statewide. The Connecticut River Cleanup Committee and the Connecticut River watershed are the first region to become a member of the coalition outside of the Boston area. Because of this, PVPC has spent time working with the coalition to tailor outreach materials to the water resources of western Massachusetts and nine communities of the Stormwater Committee. This effort has successfully resulted in the coalition renaming the coalition as Think Blue *Massachusetts* to better meet the needs of all intended partners and regions of the state.

The following is a summary of the work of the Stormwater Committee during the 2007 calendar year:

Member Communities (11)
Agawam, Chicopee, Easthampton, Granby, Holyoke, Longmeadow, Ludlow, South Hadley and Springfield
New members as of December 2007 – West Springfield and Westfield

Comcast Spotlight Cable Television

- Aired 30-second Think Blue PSA during primetime in July, August and September 2007 on CNN, TBS, The Weather Channel, The History Channel, and CNN Headline News

Radio

- Sponsored Live Earth: Concert for a Climate in Crisis – aired live on WRNX 100.9 on July 7, 2007
    - Included 8 30-second commercials, 1 during each 20-minute live cut-in from Live Earth
    - Mentioned in 25 promotional announcements
    - Think Blue logo on wrnx.com
    - 20 additional 30-second commercials airing on the stream at wrnx.com
- Aired 8 week programming with Clear Channel Radio (April – May 2007)
    - 30 commercials per week

- 10 spots from 6am-7pm M-F
- 10 spots 6am -12 midnight Sun-Sat
- 5 Radio Stations:
    1. Zone 640 Sports Radio
    2. WHYN Mix 93.1
    3. KIX 97.9
    4. WHYN News Talk 560
    5. WRNX 100.9 FM

Public Presentations
Chicopee Rotary Club – March 19, 2007
Agawam Lions Club – May 5, 2007
Easthampton rotary Club – May 8, 2007
Ludlow Agricultural Commission – May 17, 2008
Holyoke Rotary Club – May 15, 2007
Mt. Tom Science Day – August 25, 2007 – poster PSA display and "Where do you live in the watershed?" mapping exercise with school-aged children
Granby Lions Club – October 16, 2007
South Hadley Lions Club – November 20, 2007

Website
Maintained website at WWW.ThinkBlueMA.org/ConnecticutRiver

Grants Received
EPA Watershed Initiative Grant $21,662
PVPC received a roughly $1 million grant from EPA to perform work related to improving the conditions in the Connecticut River Watershed in Massachusetts, Vermont and New Hampshire. Task B-1 of this grant proposal included funding to support the innovative public outreach programming of the Stormwater Committee. A contract for this grant is expected to be in place by Spring, 2008.

Northeast Utilities Grant $1,000
This grant is to fund printing costs for the Greenscapes pilot program. This pilot program will be launched in the Spring, 2008 with funding provided by the EPA grant.

Newspaper / Print Media
- Three poster PSAs about reducing fertilizer use, picking up pet waste, and picking up cigarette butts
- Translated posters into Spanish for display at Mt. Tom Science Day, August 25th, 2007.

Connecticut River Stormwater Committee
Progress Report January 1 to December 31, 2006

Think Blue Massachusetts Coalition Membership

The Think Blue Coalition is an ad-hoc committee of 24 organizations formed to develop an effective campaign to address water pollution from stormwater runoff. Originally formed in 2006 by the Massachusetts Bays Estuary Program, the Think Blue campaign developed a marketing campaign centered around the "Think Blue" brand. Public outreach materials developed as part of the campaign are available to coalition members. More information about the coalition can be viewed on their website at www.ThinkAgainThinkBlue.org .

The campaign is primarily focused on coastal zone of the greater Boston area with the intention of bringing the campaign statewide. The Connecticut River Cleanup Committee and the Connecticut River watershed are the first region to become a member of the coalition outside of the Boston area. Because of this, PVPC has spent time working with the coalition to tailor outreach materials to the water resources of western Massachusetts and nine communities of the Stormwater Committee. This effort has successfully resulted in the coalition renaming the coalition as Think Blue *Massachusetts* to better meet the needs of all intended partners and regions of the state. Other Think Blue outreach materials that are under redesigned for the Connecticut River watershed for release as part of the Spring 2007:

- Poster size PSAs about reducing fertilizer use, picking up pet waste, and picking up cigarette butts
- 30 second radio PSA
- 60 second television PSA
- Portable display for public events

Newspaper

- Daily Hampshire Gazette, The Summit – serving Easthampton, Southampton and Westhampton, September 14, 2006 – Fertilizer PSA
- Turley Publications
  - 9/14/06 – Pet Waste PSA
  - 9/21/06 – Leaking Oil PSA
  - 9/28/06 – Fertilizer PSA

  Chicopee Register, Holyoke Sun, Ludlow Register, Agawam Advertiser, The Sentinel (Granby), South Hadley Reminder
- Springfield Republican, Holyoke Plus Section, 10/25/06 "Girl Scouts Paint the Town"
- Daily Hampshire Gazette, 10/2/06, "Valley Groups Press Clean-Water Campaign"
- Press Releases:
  - 9/7/06 "Think Blue" Stormwater Campaign Targets Connecticut River Watershed
  - 9/27/06 Granby Girl Scouts Assisting Public Outreach Efforts

WGBY Public Television

- 4 – 15 second spots; Aired for 13 weeks in September – November 2006
- Negotiated contract to air 60 second Think Blue PSA during primetime in April, May and June 2007. PSA will overlap and be tied to radio PSA that will be airing during same period.

Radio

- Purchased 8 week programming with Clear Channel Radio
  - 30 commercials per week
  - Program to air April – May 2007
  - 10 spots from 6am-7pm M-F
  - 10 spots 6am -12 midnight Sun-Sat
- Package cost $2,800
- 5 Radio Stations:
  - Zone 640 Sports Radio
  - WHYN Mix 93.1
  - KIX 97.9
  - WHYN News Talk 560
  - WRNX 100.9 FM

Public Presentations

Longmeadow Rotary Club - August 21, 2006
Chicopee Rotary Club – March 19, 2007 (scheduled)
Scheduling under way at one civic/business organization per member community

Attachment B

Town of Ludlow MS4 Map February 2008

Attachment C

2007 Household Hazardous Waste Day Results

Sept. 8, 2007
Regioanl HHW event

Town	1/2 car	full car	total	town #s	1/2 car	full car	town	Total	shared costs	Total cost
Clean harbors count	$28	$48	cars	car loads	cost	cost	hhw	disposal $		
(21 full cars less)	(10 gal)	(25 gal)								
(4half cars more)										
East Longmeadow	29	9	35	6	$812	$432	$288	$1,532	$257.00	$1,789.00
Hampden	12	5	13	0	$336	$240	$0	$576	$257.00	$833.00
Longmeadow	49	18	61	2	$1,372	$864	$96	$2,332	$257.00	$2,589.00
Ludlow	31	16	39	2	$868	$768	$96	$1,732	$257.00	$1,989.00
Wilbraham	22	6	26	3	$616	$288	$144	$1,048	$257.00	$1,305.00
TOTALS:	143	54	174	13	$4,004	$2,592	$624	$7,220	$1,285	
										$8,505
Fixed costs								$7,220	$1,285	$8,505
set up	$850	5 ways								
trash disposal	$100	pd by Longmeadow								
roll-off pull	$335	pd by Longmeadow								
flyers	donated									
total	$1,285									

Department of Public Works
The Town of Ludlow, Massachusetts

April 30, 2008

Ann Herrick
U.S. Environmental Protection Agency
1 Congress Street, Suite 1100 (CIP)
Boston, MA 02114-2023

Re: Town of Ludlow – MA041014
MS4 Phase II Annual Report
Permit Year IV – May 1, 2006 to April 30, 2007

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

V:\DPW\Engineering\Stormwater\NPDES Phase II\Annual Reports\2007\tran ltr EPA YR V.doc

198 Sportsmen's Road, Ludlow, Massachusetts 01056 Tel. 583-5625 (garage 583-5626) FAX 589-1488