Municipality/Organization: **Town of West Springfield**

EPA NPDES Permit Number: **MA041024**

MassDEP Transmittal Number: **W-035938**

Annual Report Number & Reporting Period: **April 1, 2006 – March 31, 2007**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2007)

Part I. General Information

Contact Person: James W. Lyons, P.E. Title: Town Engineer

Telephone #: (413) 263-3249 Email: Jlyons@West-Springfield.ma.us

Mailing Address: 26 Central Street - Suite 17, West Springfield, MA 01089-2763

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: Edward J. Gibson

Printed Name: Edward J. Gibson

Title: Mayor

Date: April 19, 2007

Part II. Self-Assessment

The Town of West Springfield has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1A	Educational Displays at the DPW Offices	DPW	1 Display in Municipal Building per year (Year 1 to 5)	Stormwater posters have been installed outside of DPW Offices in the Municipal Office Building. Earth Day Posters in MOB & Library	Maintain Posters as needed
Revised					
1B	Classroom Education	DPW	DPW Classroom Presentation (Year 1 to 5)	Memorial School in West Springfield has included stormwater related topics in it's curriculum. The West Springfield Engineering Dept has participated in programs that illustrate the effects of environmental pollution	Continue to participate in Classroom Educational Programs.
Revised					
1C	Newspaper Press Release	DPW	Press Release to local newspaper –2 per year (Year 1-5)	Press releases and articles frequently appear in the West Springfield Record and the Springfield Republican. They appear far more frequently than 2 per yr	Continue press releases and articles for the local newspapers.
Revised					
1D	Local Cable Access	DPW	Show Stormwater Video – 2 per year (Year 1-5)	"Earth Day in the Pouring Rain" shown 6 or 7 times in Spring of 2006. Pernell Gerver lecture on "Lawns and the Environment" – 5/31/06	Continue with public presentations televised on the local cable access channel
Revised					
1E	Informational Pamphlets	DPW	Develop Pamphlets and distribute with water bills (Year 1,3,5)	NOT THIS YEAR	Informational pamphlets will be sent out with the water bills
Revised					
1F	Open House at Transfer Station	DPW	Publicize and Support Annual Event (Year 1 to 5)	Pernell Gerver lecture on "Lawns and the Environment" – 5/31/06	The town will continue to run programs and lectures which highlight the environment.
Revised	*Changed Location to Town Hall Auditorium*				

1. Public Education and Outreach (Continued)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1G	Community Website	DPW	2 Notices per Year on local "Virtual Town Hall" website (Year 1 to 5)	The Community Website is operational and features Stormwater and Environmental topics.	The town will continue to post Stormwater and Environmental Notices on it's Public Works Website.
Revised					

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
2A	Adopt a Road	City Council	Support "Rivive the Pride" activities in the Merrick Section – Years 1 to5	Annual "Earth Day Cleanup" activities utilize volunteer groups who help with the cleanup. These groups go along brooks and streams and remove litter and other debris.	The Town will continue to sponsor "Earth Day Cleanup Activities".
Revised					
2B	Adopt a Stream	DPW	Maintain Signage identifying stream names sponsored by volunteer groups – Years 1 to 5	During "Earth Day Cleanup" volunteers check the signs that identify the names of streams. The signs are replaced if they are damaged.	The Town will continue to sponsor "Earth Day Cleanup Activities".
Revised					
2C	Attitude Surveys	DPW	Include Stormwater Survey on Website – Years 2 & 5	NOT THIS YEAR	Attitude Survey will be posted on the DPW Website this year
Revised					
2D	Community Hotline	DPW	Place DPW phone number on Town Website for reporting of illicit discharges – Years 1 to 5	This BMP has been implemented with the assistance of our Computer Department.	Continue to post the Emergency Phone Numbers on the Town's Website.
Revised					
2E	Storm Drain Stenciling	DPW	Recruit volunteers for stenciling anticipated 100 catchbasins per yr	We depend upon volunteer efforts to help us with this BMP. Unfortunately, we were unable to get any of the Cub Scouts or Boy Scouts to participate this year.	The town will solicit volunteers to install curb markers at all catch basins.
Revised					

2. Public Involvement and Participation (Continued)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
2F	Water Quality Monitoring	DPW	Visual Inspection of priority outfalls by volunteers, 10 per yr (Years 2 & 5)	Water samples taken in Block Brook indicate elevated coliform levels. Outfalls have been checked as well as all of the drain pipes in the area.	Continue testing and monitoring of water quality in streams and brooks
Revised					
2G	Watershed Committee	WRA	Support Westfield River Association, inform of DPW activities (Year 1 to 5)	The Town of West Springfield is actively involved with the Westfield River Watershed Association.	The Town of West Springfield will continue to support the Westfield Watershed Association.
Revised					
2H	Hazardous Waste Collection	DPW	Publicize annual event collecting Universal Wastes (Year 1 to 5)	Hazardous Waste Collection was conducted on September 30, 2006	The Town of West Springfield will conduct a Hazardous Waste Collection sometime in the early fall of 2007.
Revised					
2I	Wetlands Planting Remove invasives	DPW	Recruit volunteers for wetlands improv-ments (Year 1 to 5)	Local Conservation Groups help with this BMP. Wetland habitat replication and restoration has been required on a number of projects during the past year.	West Springfield will continue to support local conservation groups thru town sponsored activities.
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
3A	Mapping Stormwater Outfalls	DPW	Develop map of stormwater outfalls, Year 1 Field inspect, Year 2-5 verify 25% per year	Mapped outfalls in 30 percent of town focusing first on densely populated areas.	Complete mapping of outfalls and storm water system. Field inspect at least 40 priority outfalls.
Revised					
3B	Develop Illicit Discharge Plan	DPW	Evaluate Year 1 Draft Plan Year 2 Propose adoption Yr 3 Implement Yrs. 3 to 5	Focused on simultaneously mapping outfalls and system-wide storm and sewer structures (i.e., catch basins, manholes, pipes). This will provide accurately located structures to help the town immediately and more easily implement the Illicit Discharge Detection and Elimination Program.	Develop illicit discharge plan for inspected outfalls having illicit discharges.
Revised					
3C	Non- Stormwater Ordinance	Planning Board / DPW	Evaluate Year 1 Draft Plan Year 2 Propose adoption Yr 3 Implement Yrs. 3 to 5	Ordinance was adopted April 19, 2005 It has been implemented	
Revised					
3D	Inform Employees, Businesses, Public	DPW	Publicize Illicit Discharge Plan (Year 3 & 5)	NEXT YEAR	
Revised					
3E	Video Inspection	DPW	Conduct as needed in conjunction with BMP #3B (Years 1 to 5)	Video Inspections and dye testing have been performed in conjunction with the mapping of storm drain systems.	Video inspections and dye testing to be performed as needed to determine connectivity of storm drain systems to outfalls.
Revised					

3. Illicit Discharge Detection and Elimination (Continued)

3F	Failing Septic Systems	Board of Health	Keep records for identification of Problem Areas (Years 1 to 5)	Health Department has records of Septic Systems. These are being entered onto the Town's GIS mapping system.	Continue to enter septic system information onto the Town's GIS mapping system
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
4A	Construction Site Runoff Ordinance	Planning Board Build Inspector	Eval Exist Regs Yr 1 Draft Revisions Yr 2 Propose for adoption in Year 3	Municipal Oversight Regulations are currently in draft form.	Municipal Oversight Regulations are to be presented to the Town Council for adoption some time in 2007 or early 2008.
Revised					
4B	Erosion and Sediment Control Plan Review	Planning Board	Enforcement under existing Regulations Yr 1-2 Enforcement under adopted ordinance Years 3 to 5	Municipal Oversight Regulations are currently in draft form.	Municipal Oversight Regulations are to be presented to the Town Council for adoption some time in 2007 or early 2008.
Revised					
4C	Inspection Reporting	Conservation Commission	Enforcement under existing Regulations Yr 1-2 Enforcement under adopted ordinance Years 3 to 5	Municipal Oversight Regulations are currently in draft form.	Municipal Oversight Regulations are to be presented to the Town Council for adoption some time in 2007 or early 2008.
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5A	Post Construction Runoff Ordinance	Planning Board	Eval.Exst Stand – Yr 1 Draft Revision – Yr 2 Propose Adopt - Yr 3	Municipal Oversight Regulations are currently in draft form.	Municipal Oversight Regulations are to be presented to the Town Council for adoption some time in 2007 or early 2008.
Revised					
5B	Construction Site Plan Review	Planning Board	Enforcement under existing Regs Yr 1-2 Enforcement under adopted ordinance Years 3 to 5	Municipal Oversight Regulations are currently in draft form.	Municipal Oversight Regulations are to be presented to the Town Council for adoption some time in 2007 or early 2008.
Revised					
5C	Stormwater System Maintenance Plan	Planning Board	Enforcement under existing Regs Yr 1-2 Enforcement under adopted ordinance Years 3 to 5	Municipal Oversight Regulations are currently in draft form.	Municipal Oversight Regulations are to be presented to the Town Council for adoption some time in 2007 or early 2008.
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6A	Municipal Maintenance Activity Program	DPW	Evaluate and draft additional policies as necessary, Year 1. Comply, Yrs 2-5	DPW maintains 17 parks and ball fields – trash is picked up on a daily basis. Vehicle fleets inspected monthly and oil changes done on a regular basis Catch basins are cleaned as there is a route established to clean them all.	Continue the effort established in previous years
Revised					
6B	Employee Training	DPW	Initial Good Housekeeping training Year 1. Annual Refresher Yrs 2-5	Employees are trained in the Municipal Maintenance Activity Program.	Continue the effort established in previous years
Revised					
6C	Catchbasin Program	DPW	Clean 50% of Catchbasins per year	100% of the catchbasins were cleaned this year. Collected materials were composted for beneficial use at the Springfield Yard Waste Composting Facility	Continue the effort established in previous years
Revised					
6D	Street Sweeping	DPW	Sweep Streets once per year and Business Districts monthly, spring thru fall Yrs 1-5	The DPW swept the entire town once this year. Downtown and main arterial routes were swept an additional 4 times. Street sweepings were composted for beneficial use at the Springfield Yard Waste Composting Facility.	Continue the effort established in previous years
Revised					
6E	Road Salt Program	DPW	Employee Training at Salt-Institute, Yr. 1 Investigate alternative chemicals Yrs 2-5	DPW is continually investigating alternative snow and ice control techniques.	Continue the effort established in previous years
Revised					

6. Pollution Prevention and Good Housekeeping in Municipal Operations (Continued)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6F Revised	Lawncare and Pest Control	DPW	Train 2 Employees for application of controls Yr 1 Implement Practices Yrs 2-5	Pernell Gerver, a renowned horticulturalist, presented "Lawns and the Environment" on May 31, 2006. Sponsored by the West Springfield DPW, the talk focused on organic alternatives to chemical lawn care. The reduction in the use of lawn chemicals is an important component of the Town's stormwater management program.	Continue the effort established in previous years
6G Revised	Stormwater Pollution Prevention Plan / MSGP at the City Garage (Town Yard)	DPW	Implementation of SWPPP, Year 1. Comply, yrs 2-5	Plans have been prepared for a new state of the art repair facility. The DPW is pursuing funding.	Continue the effort to get funding for a new town facility.
6H Revised	Used Oil Recycling	DPW	Continue collection and recycling, Years 1-5.	In 2006 the town collected for recycling 925 gallons of used motor oil.	Continue to collect and recycle used motor oil
6I Revised	Illegal Dumping	DPW	Pickup of dumped waste, Yrs 1-5	The DPW continues to pick up illegally dumped materials in the following areas: Agawam Ave, Bear Hole Reservoir, Circuit Ave, Palmer Ave, Old Westfield Road and 7.2 miles of earthen dike. Earth Day Cleanup was organized by DPW and Conservation Commission and picked up 7.8 tons of litter, 2.4 tons of bulk waste and 1.7 tons of tires (32 tires with rims)	Continue with the effort established in previous years. Installation of a surveillance camera in problem areas.

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
7A	TMDL for the Connecticut River	DPW, Planning, Health, Bldg Departments	Completion of BMP's under all of the Six Minimum Control Categories	Refer to previous BMP's	
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)
(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2006 through March 31, 2007)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures **	($)	$ 229,441
Total program expenditures since beginning of permit coverage	($)	$ 351,790
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	95%
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	Y
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	361
▪ material collected **	(tons or gal)	3.9 tons
School curricula implemented	(y/n)	Y

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	
▪ 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

	(Preferred Units)	Response
Outfall mapping complete	(%)	30%
Estimated or actual number of outfalls	(#)	83
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	30%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	
% of population on sewer	(%)	95%
% of population on septic systems	(%)	5%

Construction

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

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections (for proper BMP installation & operation) completed **	(# or %)	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	
Low-impact development (LID) practices permitted and encouraged	(y/n)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1 time/year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	5 times/year
Qty of structures cleaned **	(#)	Approx 2900
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	965 tons
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	compost

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$ 54,303
• Hourly or per basin contract rate **	($/hr or $ per basin)	
• Disposal cost**	($)	$ 0.00
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vactor **	(%)	

	(Preferred Units)	Response
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)	4
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	2,700 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Compost
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$ 56,753
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	$ 585 / mi
• Disposal cost**	($)	$ 0.00
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	Y
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	N/A
▪ Herbicides *By Contract 7.2 miles of earthen dike has vegetation control*	(lbs. or %)	
▪ Pesticides	(lbs. or %)	N/A
Integrated Pest Management (IPM) Practices Implemented	(y/n)	N

	(Preferred Units)	Response
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	45% 5% 50%
Pre-wetting techniques utilized **	(y/n or %)	N
Manual control spreaders used **	(y/n or %)	N
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	0%
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	0%
% of salt/chemical pile(s) covered in storage shed(s)	(%)	0%
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	N

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	Y
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	N

West Springfield: NPDES Compliance for goals 2F, 3A, and 3B

The town has modified its original performance goals 2F, 3A, and 3B with regard to visually inspecting priority outfalls, mapping outfalls, and developing an illicit discharge and detection plan. The new approach as described below will allow the town to more accurately and efficiently investigate illicit detections and then implement appropriate elimination actions. The original schedule for implementing these three performance goals has also changed but the overall objective will still be met by the end of Year 5.

The town's initial approach involved creating a basic map of outfalls using GPS and inspecting the outfalls. If an inspected outfall showed any signs of illicit discharge, the town would then develop and implement its illicit discharge plan. To investigate illicit discharges, the town would need accurate maps of the storm and sewer systems to trace upstream the source of an illicit discharge.

With adequate financial funding in place, the town decided to simultaneously map outfalls and the entire storm sewer and sanitary systems. Mapping the entire systems (i.e., pipes, manholes, catch basins, other structures) involved creating digital flow maps from outdated engineering plans. Once these plans were in digital map format, field crews began to survey and digitally update outfall locations and upstream flow connections. The town investigated any undetermined connections from field work with dye and video testing. Ten areas were dye tested, three areas were water jetted, and 2,600 linear feet of storm drains were videoed. The town piloted these efforts in an older urban part of town and is adopting a similar approach that will be carried through year 5.

As the storm and sewer systems are mapped, the town will inspect at least 40 priority outfalls for the presence of non-storm water discharges in Year 5. Information gathered from outfall testing will allow the town to detect, locate, and eliminate illicit discharges from the storm water system. The system-wide storm and sewer maps will provide accurately located systems to help the town efficiently and more easily implement it's Illicit Discharge Detection and Elimination program. The maps will provide the town the ability to trace pipe connections upstream of the outfall being investigated to help determine the source of pollutants.

The town has invested a substantial amount of financial resources, effort, and time to map the entire storm water system in addition to outfalls. The modified schedule and goals will provide significant value-added benefits for the Illicit Discharge Detection and Elimination program. The town intends to be in compliance with the performance goals 2F, 3A, and 3B by the end of Year 5.