Municipality/Organization: City of Springfield

EPA NPDES Permit Number:

MaDEP Transmittal Number: W- 040908

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: Allan Chwalek, P.E. Title: Director, Public Works

Telephone #: 413-787-6224 Email: N/A

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: Allan Chwalek

Printed Name: Allan Chwalek, P.E.

Title: Director, Public Works

Date: September 1, 2004

Part II. Self-Assessment:

The City of Springfield has completed the required self assessment and has determined that the municipality is in compliance with all permit conditions expect for the following:

Item 5-2b: Budget constraints and personnel deficit within the municipality have not allowed for complete assessment of process by the applicable department.

Item 6-1b: Budgetary constraints did not allow for expansion of street sweeping program
Item 6-1c: Budgetary constraints did not allow for additional street sweeping of TMDL areas
Item 6-1d: Budgetary constraints did not allow for re-establishment of catchbasin cleaning program.

Item 6-4c: Budgetary constraints did not allow for construction of BMP facilities at critical area
Item 6-4d: Personnel and Budgetary constraints did not allow for assessment or data gathering

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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
1-1a Revised	Map and door hangars	Department of Public Works Planning Department	On-going	-Designed and created wall hangings identifying watershed areas throughout city and made available for public distribution	1)Continue to make watershed maps available for public use 2) If funding allows assess program and identify additional materials that can be created
1-1b Revised	Catch basin markers	Department of Public Works Planning Department	One set of markers to be placed per year	1) Signs have been ordered and manufactured and in inventory. 2) Watershops Pond watershed partially completed through volunteer stormwater quality monitors. Vinyl signs glued to catch basin inlets.	1) Work to complete Watershops pond watershed marking 2) Work to establish firm schedule for marking of next two watershed areas by year 2005.
1-1c Revised	Stormwater video	Department of Public Works **Planning Department responsibility**	Find video	1) Manufacturer of quality stormwater video not identified. City created own video with then current Mayor that highlight importance of stormwater management efforts. Video was run on Public Access channel	1) Continue research into locating good quality stormwater video for 2004. 2) run video on Public Access channel in accordance with requirements.
1-2	Promote Waste Disposal Programs	Department of Public Works	On-going	1) Refined efforts for publication of special collection days, including Hazardous Waste collections,	1) Continue current efforts for advance notification of Special Waste Collection Days.

Revised					
1-3a	Stormwater Matters Talk	Department of Public Works Planning Department	Presentation on stormwater will be given once per year at public event or meeting	1) Planning Department hosts stormwater matters talks at one of each neighborhood council meetings through year. 2) Planning Department presented Stormwater Matters talk to Forest Park Middle school 7th grade class	1) Schedule updated stormwater matters talk with each neighborhood council. Provide update on past year's efforts, confirm identity of next year's volunteers and establish schedule of tasks to be accomplished.
Revised		**Planning Department responsibility**			
1-3b	ECOS Springfield event	Department of Public Works Conservation Commission	Assess possibility of establishing stormwater event if resources allow	1) Current fiscal situation of City of Springfield do not allow for establishment of dedicated event. 2) Established stormwater matters component of 2003 Earth Day in May	1) Continue to assess if 2004 funding allows for establishment of dedicated event 2) Planning for additional stormwater matters component for 2004 earth Day celebration
Revised					
1-4a	No Dumping	Department of Public Works	On-going	1) Encourage neighborhood councils to report illegal dumping activities when viewed. 2) Replace "No dumping" signage when reported missing or vandalized	1) Continue efforts established in 2003 2) If funding allows, order and install additional "No Dumping" signs in areas most frequented for dumping. Enlist help of Police Department in monitoring these target areas to catch and prosecute violators.
Revised					
1-4b	Dog Waste	Department of Public Works Parks Department	-Assess need for signage -Install one new park sign per year if finding allows	1) Established Public Awareness Program of the proper treatment of dog wastes. 2) Provide residents with disposal "pooper-scoopers" to collect and properly dispose of their own dog's waste 3) Install dog waste station within limits of Forest Park and Visitors Information Center	1) Continue public awareness efforts on the effects of dog waste 2) Assess need fore additional dog waste collection stations within city parks.
Revised		**Include Planning Department**			

1-4c	Geese Wastes	Department of Public Works Parks Department	-Assess need for signage -Install one per year	1) Assessment complete for signage needs 2) Signage created as part of Kiosk were ordered, constructed and placed in inventory	1) Kiosk installation planned for 2004 if funding allows.
Revised		**Include Planning Department, Conservation Commission**			
1-4d	Stormwater Kiosk	Department of Public Works Planning Department	-Place Kiosks at key locations at a number of Water bodies	1) Kiosk created and placed in inventory	1) Kiosk installation planned for 2004 if funding allows.
Revised					
1-5a	Press Releases	Department of Public Works Planning Department	On-going	Opportunities of educational press releases continually explored. Stormwater Management Video created with former Mayor made available to neighborhood councils for use and viewing during meetings	Maintaining of current new release program
Revised					
1-5b	Stormwater Display	Department of Public Works Conservation Commission	Establish a stormwater display at DPW one month per year	1) Display of stormwater educational material established in lobby of DPW 2) Display of stormwater educational material established in foyer of City Hall on alternating month from DPW display	1) Continue display effort for 2004 2) refine and improve display as funding allows.
Revised		**Include Planning Department**			

1-5c	Educate Local Business	Department of Public Works Conservation Commission Planning Department	Assess educational opportunities with Business and Industries	1) Assessment complete 2) Handouts created and distributed to business to be used to inform employees of recreational opportunities available throughout the city	1) Additional educational opportunities assessed for 2004.
Revised					
1-5d	Display Materials	Department of Public Works Planning Department	On-going	1) Display of stormwater educational material established in lobby of DPW 2) Display of stormwater educational material established in foyer of City Hall on alternating month from DPW display	1) Continue display effort for 2004 2) Refine and improve display as funding allows.
Revised					

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
2-1a	Catch basin markers	Department of Public Works Planning Department	One set of markers to be placed per year	1) Signs have been ordered and manufactured and in inventory. 2) Watershops Pond watershed partially completed through volunteer stormwater quality monitors. Vinyl signs glued to catch basin inlets.	1) Work to complete Watershops pond watershed marking 2) Work to establish firm schedule for marking of next two watershed areas by year 2005.
Revised					
2-1b	Water Quality Monitoring	Planning Department	Volunteer Water Quality Monitoring program on-going	Volunteers currently monitoring only Water Shops Pond in detail for water temperature, clarity and depth	1) Web site planned to post monitoring results 2) If funding permits, work with additional volunteers to establish monitoring program for other watersheds
Revised					
2-1c	Vegetative Cover Data Collection	Planning Department	Establish volunteer program to monitor ground cover at critical locations	Establishment of program delayed due to funding. Planning Dept. worked with community for annual tree planting program to re-establish vegetation in tree belts-20-trees planter	Continue tree planting program for 2004 Assess ability to establish volunteer program in 2004
Revised	*City Tree Inventory*	Parks/ Forestry	Inventory all tree belt trees and schedule replacement or maintenance.		
2-1d	Earth Day clean-up	Museum Assoc. Department of Public Works Planning Dept.	Earth Day planned events	City-wide 2003 Earth Day event from April 17 to May 1. Included distribution of Stormwater Management educational information, coupled with tree planting activities	Continue Earth Day planned event. If funding allows, expand program to include clean-up activities and re-foresting/tree planting
Revised					
2-2	Stormwater Management Plan Public Participation	Department of Public Works	DPW will make stormwater plan available to public	Complied and made available the "2003 Summary Report on Water Quality for Springfield's Lakes and Ponds"	Continue to provide update information on 2003 report to public
Revised					

2-3a Revised	Household Hazardous Waste Collection	Department of Public Works	Hold Haz. Collection Day for residents to drop off materials for disposal	DPW advertised Haz. Collection Day in regional newspaper and flyer distribution. Organized and held collection event to limit possibility of illegal dumping of hazardous material	Continue to advertise and hold Hazardous Material Collection Event for households' city wide.
2-3b Revised	Bulk Item Collection	Department of Public Works	Residents can call to schedule Bulk Material Collection Day of up to 5-items	Bulk Collection Program on-going. Residents can also drop bulk items off at Landfill directly	Continue to make program available to residents if funding allows.
2-3c Revised	Curbside Collection	Department of Public Works	Residential recycling is to be picked-up every other week year round. Recycling is required per Springfield ordinance	Recycling Collection Program on-going.	Continue to make program available to residents.
2-3d Revised	Rechargeable Battery Recycling	Department of Public Works	Maintain residential drop-off of rechargeable batteries at DPW	Collection program on-going.	Continue to make program available to residents.
2-3e Revised	Leaf and yard waste collection	Department of Public Works	Maintain current leaf and brush collection program. Compost material is made available to residents.	Collection and composting program on-going at DPW yard and landfill. Residents can also drop off brush waste directly at the landfill.	Continue to make program available to residents.

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
3-1a Revised	Sewer Book Maintained	Department of Public Works	Maintain existing drainage system map	On-going update of existing infrastructure book	Continue update on sewer and drainage system book as new system are constructed/upgraded. Require all new developers to provide AutoCAD files of design plans to aid in update.
3-1b Revised	Sewer GIS Available	Department of Public Works Water and Sewer Commission	GIS mapping of infrastructure	On-going establishment/update of GIS system with new/replacement infrastructure. Fly-over of city complete. Work towards final establishment of GIS mapping as funding permits	Continue update of GIS system as new systems are constructed/upgraded. Require all new developers to provide AutoCAD files of design plans to aid in update.
3-2a Revised	Evaluate existing Illicit discharge ordinances	Department of Public Works Planning and Water & Sewer	Review current City ordinance. Obtain and review ordinances from other communities	Existing established ordinance reviewed for new items that could be implemented. Sample ordinances from larger communities obtained and partially reviewed.	Continue review of sample ordinances. Continue discussions for improvement of existing ordinance
3-3a Revised	Determine Priority areas	Department of Public Works Water and Sewer	Determine priority areas, Inspect outlets at two water bodies per year	First year priorities stabled for Water Shops Pond. Inspection and monitoring program achieved through volunteer stormwater quality monitors from neighborhoods and Water & Sewer.	Budget not established for 2004 goals. Establish priorities for 2005. Establish volunteer inspection program for next priority area.
3-3b Revised	Inspections	Department of Public Works	Visually screen outfalls	Volunteer stormwater quality monitors identified. Established forms for inspectors to fill out and record inspections	Establish inspection criteria and program for implementation in 2005
3-3c Revised	Investigation	Department of Public Works	Trace the source of illicit discharges	Inspections lead to identification of sewage discharge into water body from broken infrastructure.	Establish formal investigation program for identification and tracing of illicit discharges

3-3d	Correct Problems found	Department of Public Works Sewer and Water Commission	Remove Source of illicit discharges.	Repair of one problem identified under task 3-3c. Sewer and drainage pipe repaired to eliminate sewage discharge to water body	Establish formal program for correction of illicit discharges as budgets allow.
Revised					

3a. Additions

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
4-1	Wetland Protection	Conservation Commission	Review existing regulations which require compliance with stormwater policy within wetland buffer	On-going review of planned development projects. Require developer permitting and compliance with standards established by DPW for all sites	On-going establishment of review program for new projects.
Revised					
4-2a	Erosion and sediment control ordinance	Conservation Commission, Law Dept., Department of Public Works	Review sample regulations for other communities. Initiate discussions for ordinance establishment	Sample ordinances obtained and in process of being reviewed. Require new site plans/subdivisions to infiltrate stormwater on-site to reduce off-site erosion and quantity of off-site discharge	Continue with discussions on establishment of ordinance. Continue to require infiltration on new site developments.
Revised	*Update new language into subdivision regulations*	Planning			
Revised					
Revised					
Revised					
Revised					

4a. Additions

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
5-1	Wetland Protection	Conservation Commission	Review existing regulations which require compliance with stormwater policy within wetland buffer	On-going review of planned development projects. Require developer permitting and compliance with standards established by DPW for all sites	On-going establishment of review program for new projects.
Revised		DPW			
5-2a	Site Plan Review Process	Conservation Commission Department of Public Works Planning Dept	Require TSS removal for groundwater recharge. Attenuate peak flows.	Implementation of site plan review process to require on-site infiltration of collected stormwater. Oil and gas separators required on refueling station designs.	Continued requirement of infiltration and TSS removal for new site developments.
Revised					
5-2b	Evaluate for changes and improvements	Conservation Commission Department of Public Works Planning Dept.	Assess existing procedures and make improvements to process	Personnel departures and budget constraints did not allow addressing of this goal.	Evaluate site plan review process and suggest improvements for 2005
Revised					
5-3a	Evaluate existing site plan process	Conservation Commission Department of Public Works Planning Dept.	Assess existing procedures and make improvements to process	Implementation of site plan review process to require on-site infiltration of collected stormwater. Oil and gas separators required on refueling station designs.	Continued requirement of infiltration and TSS removal for new site developments
Revised					
Revised					
Revised					

5a. Additions

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
6-1a	Street sweeping winter cleanup	Department of Public Works	Sweep streets a minimum once per year	Established sweeping program is continual basis, with streets being swept again after first round of sweeping	Continue with established practices
Revised					
6-1b	Street Sweeping on-going.	Department of Public Works	Re-establish normal sweeping program on 6-times per year as funding allows	Municipal budget and mechanical failures did not allow for enhancement of sweeping program.	Re-establish normal sweeping program on 6-times per year as funding allows
Revised					
6-1c	TMDL Targeted sweeping areas	Department of Public Works	Loon, Long and Mona areas will receive additional sweeping	Municipal budget and mechanical failures did not allow for enhancement of sweeping program in 2003.	Implement enhanced sweeping program in 2004 if budget allows.
Revised					
6-1d	Catch basin cleaning	Department of Public Works	Re-establish catchbasin cleaning program as budget allow	Municipal budget did not allow for re-establishment of cleaning program. Work was performed as basins backed up or needed replacement.	Evaluate re-establishment of cleaning program in 2005 if budget allows
Revised					
6-2a	Existing Practices	Department of Public Works	Existing practices for recycling and reduction of haz. materials	On-going programs for employee awareness and reduction of use.	Continue with current program
Revised					
6-2b	Leaf Disposal	Parks Department School Department	Leaf disposal by on-site composting	Collection and composting program on-going at DPW yard and landfill. Residents can also drop off brush waste directly at the landfill.	Continue to make program available to residents.
Revised		**Add Department of Public Works**			

6-2c Revised	Litter reduction	Department of Public Works Conservation Commission	Reduce litter by installing "No Dumping" signs, make public waste containers available	Replace "No dumping" signage when reported missing or vandalized.	1) Continue efforts established in 2003 2) If funding allows, order and install additional "No Dumping" signs in areas most frequented for dumping. Enlist help of Police Department in monitoring these target areas to catch and prosecute violators.
6-3 Revised	Employee Education	Department of Public Works	Provide training once per year in haz. Mat. Spill prevention, stormwater quality practices, illicit discharge elimination	On-going program for inter-department training to be maintained.	On-going program for inter-department training to be maintained.
6-4a Revised	Catch Basin Improvements	Department of Public Works	Improve existing catchbasins to comply with BMP requirements	Catch basins that require maintenance are re-built with 4-foot sump areas. Hooded outlets are required from all new developers	On-going program to be maintained.
6-4b Revised	Outlet Inspections	Department of Public Works	Inspect system outfalls of sewers and CSO's	Outlets inspected as part of survey efforts. U.S. Waters inspects and monitors city outfalls on regular basis	On-going program to be maintained.
6-4c Revised	Design/construction of BMP's	Department of Public Works Water and sewer commission, Conservation commission, parks dept.	Sediment and detention areas at Breckwood Pond and Middlesex outfalls	Improvements not constructed due to budget issues in 2003.	Look to establish construction program for 2005- project to be bid in 2004.
6-4d	Conservation Land Improvements	Department of Public Works Water and sewer commission, Conservation commission	Gather data for possible improvements	Goal not achieved due to budget issues	Look to establish program for 2005

Revised					
6-5a	Acquisition of open space	Conservation commission, Parks Dept.	Acquisition of open space through grants and donations	Parks Dept. looking to acquire land at Loon Pond and 5-mile pond	Continue to acquire land through donations and grants
Revised					
6-5b	Park Improvements	Conservation commission, Parks Dept.	Efforts of improve park lands through improvements to stormwater collection system and BMPs		
Revised					

6a. Additions

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

Attached a evidence of data collected is the 2003 Summary Report on Water Quality for Springfield's Lakes and Ponds

Do we have any volunteer collected data to include?

Part V. Program Outputs & Accomplishments (OPTIONAL)

Attached as evidence of accomplishments are Neighborhood Leaflet "Don't Let you neighborhood go down the drain" and Business leaflet for distribution to employees

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 %)	200
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	13
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y
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	(%)	90%
Estimated or actual number of outfalls	(#)	123
System-Wide mapping complete	(%)	50%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	20%
Illicit discharges identified	(#)	1
Illicit connections removed	(#) (est. gpd)	1
% of population on sewer	(%)	99%
% of population on septic systems	(%)	1%

Construction

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

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	N/A
Site inspections completed	(# or %)	N/A
Estimated volume of stormwater recharged	(gpy)	N/A

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	As needed
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	11
Total number of structures cleaned	(#)	459
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	243
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		landfill
Cost of screenings disposal	($)	0

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)	3 X 9 / year
Qty. of sand/debris collected by sweeping- Total for the Year: 10,364,290	(lbs. or tons)	5182.15
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N
Total Mileage covered: 18,207,526 feet or 3448 miles		

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: Depends greatly upon storm type and weather conditions	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	0 80% 1% 19%
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	N
Automatic or Zero-velocity spreaders used	(y/n)	N
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	Yes	Y
Storage shed(s) in design or under construction	N/A	N/A