

Municipality/Organization: City of Springfield

EPA NPDES Permit Number:

MaDEP Transmittal Number: W- 040908

**Annual Report Number
& Reporting Period:** No. (12): March '15-March '16

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Kevin Chaffee **Title:** Natural Resources Manager

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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: Kevin Chaffee

Title: Natural Resources Manager

Date: April 28th, 2016

Part II. Self-Assessment:

The City of Springfield has completed the required self-assessment and has determined that the municipality is in compliance with the 2003 NPDES permit conditions. As in past permit years, significant funds were expended towards the City's ongoing sewer separation projects, outfall monitoring program, street sweeping, education, stormwater infrastructure improvements, park and conservation land improvements and acquisition, as well as many other permit items. Of particular note: 347 outfalls (100% of total) were inspected over the past year and assessed for dry weather flows, 121 were tested; an environmental firm has been hired to carry out an aggressive, expedited program for inspection, water quality testing and source tracking of outfalls with dry weather flows; a rain garden design and installation project was completed at three public and private sites over the next year. The intent of the majority of goals within the permit has been accomplished wherever possible. It is understood that the city's MS4 General Permit expired in May of 2008. This report highlights the City's efforts to address non-point source pollution over the past year using the expired permit's goals and benchmarks.

Items not completely fulfilled include the following:

BMP ID #	BMP Description	Measurable Goal(s)	Obstacle Encountered
1-4c	Place Catch Basin Markers	Continue ongoing placement of catch basin markers.	DPW understaffed and unable to devote time to new placement of placards. A template has been drafted and will be used in upcoming permit year to stencil near catch basins. A focus will be placed in TMDL watersheds.
2-1a	Assess Drainage System in TMDL Areas	Assess condition of catch basins and outfalls at Long Pond, Loon Pond, and Mona Lake, and consider possible improvements.	Staff and funding constraints limited ability to focus on TMDL areas. Assessment has occurred at this location in previous reporting periods. Although these areas were swept additional times, once again greater focus and energy must be expended to address these compromised waters. A grant proposal was submitted to focus on stormwater inputs to Loon Pond, notice of funding is pending.
1-3a	Stormwater Matters Talks	Educational events	Although educational events were held last year, we anticipate that we will need a far more aggressive program with the new general permit issued. We will build on our successes to more completely carry out our education program.

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 (10)	Planned Activities – Future Permit
1-1a	Watershed Maps and Door Hangers, posters and Greenscapes publications with Stormwater Pollution Prevention Tips	Dept. of Public Works, Planning Dept.	Continue to make watershed maps and door hangers available at the DPW	As part of our participation in the regional CT River Stormwater Committee many education goals were met last year: 1.)Promoted the Soak Up The Rain Campaign through website upkeep, signage for porous pavement and rain garden signage. 2.)Designed and constructed 3 demonstration rain garden projects with hands-on training and education events 3.) Defined and began our program for effective messaging on bacteria and pet waste management through survey work. Defined and began our program for messaging on nutrients. 4) Led first phase of urban tree planting projects in region. 2,200 trees planted in Springfield, Chicopee and Holyoke 5.) Began collaboration with MA state wide stormwater coalitions to prepare ourselves for the pending new general permit	Continue to make watershed maps available for public use. Continue paying dues to remain in CT River Stormwater Committee, enrolled in Greenscapes Program and maintain Think Blue and Soak Up The Rain Website.
Revised					
1-1b	Catch Basin Markers	Dept. of Public Works, Planning Dept.	One set of markers to be placed per year	No new markers placed in permit period. This will be a focus for improvement in the coming permit cycle.	Budget for employee time and continue to place/paint catch basin markers.
Revised					

1-1c	Stormwater Video	Dept. of Public Works, Planning Dept.	Show video on public access channel once per year.	"Think Blue" stormwater education video (30 second PSA) acquired from Pioneer Valley Planning Commission.	Continue to run video on Public Access channel in accordance with requirements.
Revised					
1-2	Promote Waste Disposal Programs	Dept. of Public Works	Publicize waste disposal and recycling programs through flyers in DPW lobby.	1) Continued to promote special collection days through publications, bill stuffers, emails and flyers. 2) 6 household hazardous waste collection days held collecting 5,445 gallons of waste, as well as bulk pickup days collecting 705 tons and Recycling events all promoted throughout year by both DPW and Keep Springfield Beautiful, a local non-profit organization.	1) Continue current efforts for advance notification of Special Waste Collection Days. 2) Continue having Recycling Coordinator attend civic functions promoting recycling.
Revised					
1-3a	Stormwater Matters Talk	Dept. of Public Works, Planning Dept.	Presentation on stormwater will be given once per year at public event or meeting	1.) As part of CT Stormwater Committee, we sponsored stormwater pollution prevention talks at local events throughout the year and a Green Infrastructure Workshop, Vendor Fair and rain garden Workshop. 2.) One talk given to science students at Duggan Middle School about stormwater pollution. Continued water/waste water/stormwater lessons to all 5 th and 7 th graders at the Bondi's Island Treatment facility 3.) Water and Sewer implemented Rain Barrel distribution in partner with EPA Watersense Program 4) Parks Department is transitioning to a complete organic grounds maintenance program	Schedule stormwater matters talk with neighborhood councils. Provide update on past year's efforts, identify new volunteers, and establish schedule of tasks to be accomplished. Springfield Water and Sewer to continue Rain barrel program, offering them at discounted rates to local residents. Continue to schedule stormwater talks with students. Continue with building inspector LID training program.
Revised					
1-3b	ECOS Springfield Event	Dept. of Public Works, Conservation Commission	Assess possibility of establishing stormwater event if resources allow	ECOS program continues with clean water element. Combined Earth Day/Keep Springfield Beautiful event on May 2 nd , 2015 included stormwater	Continue stormwater and clean-up components of these events, Keep Springfield Beautiful will hold 2016 event on April 30 th .

Revised				education materials, tree planting, and trash cleanup. Earth Day cleanup collected 13.38 tons of trash, .75 tons of recyclable metal, and 1.6 tons of tires to be recycled.	
1-4a	No Dumping Signs	Dept. of Public Works	Place "No Dumping" signs as needed.	1) Clean City continues its efforts to remove illegal dumping. 2) Police Dept. monitored target areas for dumping 3) Cameras mounted at problem sites and citations issued for illegal dumping 4) Nearly 38,440 tons of waste collected through municipal pickup. 5) Repair, replace "No Dumping" signs as needed. 4 No Dumping signs placed at Parks Properties. 6) Clean City responded to illegal dumping sites at conservation areas and cleaned refuse as needed.	1) Continue established efforts. 2) If funding allows, order and install additional "No Dumping" signs and increase monitoring in areas most frequented for dumping. 3) Continue Clean City program devoted solely to cleaning up illegal dumping sites.
Revised					
1-4b	Dog Waste Signs	Dept. of Public Works, Parks Dept., Planning Dept.	Assess need for signage. Install one new park sign per year if funding allows.	1) Continued public awareness efforts for dog waste, including posters and handouts in DPW/planning depts. 2) Maintained existing park dog waste collection systems. 3) 3 pet waste signs placed at parks, terraces. 4.) Pet waste education flyers distributed to local animal shelters for 2015. 5.) Following an extensive regional survey, our Committee developed and began implementation of a targeted educational campaign related to pet waste and bacteria	1) Continue public awareness efforts on the effects of dog waste. 2) Assess need for additional dog waste collection stations within city parks. 3) Install additional signs as needed. 4) City will consider new signs when planning any work in parks.
Revised					
1-4c	Geese Waste Signs	Dept. of Public Works, Parks Dept., Planning Dept., Conservation Commission	Assess need for signage. Install one new park sign per year if funding allows.	3 Geese waste signs placed by Parks Department over past year	1) Address any signage needs if funding allows. 2) Geese waste information is included in kiosk (1-4d). New kiosk installations planned pending funding.

Revised					3) City will consider new signs when planning any work in parks.
1-4d	Stormwater Kiosks	Dept. of Public Works, Planning Dept.	Place kiosks with information on water quality and pollution prevention.	1) Sign at Riverfront Park addresses water quality. 2) 2 Kiosks maintained by Parks Dept. 3) No new kiosks installed related to stormwater design.	Future kiosk installation planned pending funding.
Revised					
1-5a	Press Releases	Dept. of Public Works, Planning Dept.	Distribute at least one educational press release on BMPs per year.	As part of our participation in the regional CT River Stormwater Committee many events and press releases were developed for the	Continue press releases and advertisements, and promote any progress on BMPs listed above for 2013/14.

Revised				following work: 1.)Promoted the Soak Up The Rain Campaign through website upkeep, signage for porous pavement and rain garden signage. 2.)Designed and constructed 3 demonstration rain garden projects with hands-on training and education events 3.) Defined and began our program for effective messaging on bacteria and pet waste management through survey work. Defined and began our program for messaging on nutrients. 4) Led first phase of urban tree planting projects in region. 2,200 trees planted in Springfield, Chicopee and Holyoke 5.) Began collaboration with MA state wide stormwater coalitions to prepare ourselves	
1-5b	Stormwater Display	Dept. of Public Works, Conservation Commission, Planning Dept.	Establish a stormwater display at DPW one month per year.	1) Continued display of stormwater education materials in lobby of DPW and Planning Department 2) Continued participation with Pioneer Valley Planning Commission (PVPC) and Connecticut River Stormwater Committee, which develops stormwater education programs. Dues paid for 2015-2016 year.	1) Continue display effort. 2) Refine and improve display as funding allows. 3) Continue participation with PVPC and Connecticut River Stormwater Committee in developing stormwater education programs.
Revised					

1-5c	Educate Local Business	Dept. of Public Works, Conservation Commission, Planning Dept.	Assess stormwater educational opportunities with Business and Industries.	1) Conservation Commission held pre-design meetings to educate developers on the importance and cost-effectiveness of proper stormwater maintenance. Infiltration and rain garden BMP's implemented in all suitable sites subject to wetland jurisdiction, implemented pursuant to MA DEP's Stormwater Management policy 2) "Preventing Stormwater Pollution Fact Sheets" continued to be distributed to target Automotive, businesses and food industry. 3) A hydrodynamic separator was installed to replace an aging catch basin in the Loon Pond watershed. This install treats a large commercial parking lot and adjacent roadways.	1) Con Comm to continue holding pre-design meetings with development project proponents. 2) Continue to educate the public through multiple media.
Revised					
1-5d	Display Materials	Dept. of Public Works, Planning Dept.	Assess existing City events for opportunities to display stormwater materials.	1) Earth Day Cleanup 2016 identified as event for Stormwater Display. 2) Stormwater educational material display continued in lobby of DPW (see 1-5b) and City Hall. 3) Stormwater web materials made available on DPW-Engineering and Conservation Commission website	1) Continue display effort. 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 10	Planned Activities – Future Permit
2-1a	Catch Basin Markers	Dept. of Public Works, Planning Dept.	One set of markers to be placed per year.	No new placards placed during permit period due to budget constraints.	Acquire funding to purchase and continue to place catch basin markers.
Revised					
2-1b	Water Quality Monitoring	Planning Dept.	Coordinate volunteer water quality monitoring program.	1) Ammonia, Nitrogen, Phosphorus, E.Coli, pH, Dissolved Oxygen, Macroinvertebrates, Flow, Temperature, and Chlorine level testing performed at Abbey Brook through a Renaissance school Student project (year 8) 2) Monitoring is performed at all public swimming locations by the Board of Health. 26 tests performed. 4) Pioneer Valley Planning Commission continued summer E. coli monitoring of multiple points on CT river (7 year ongoing project). Project protocol established for E. coli testing of multiple points on lower Chicopee River. 5) Water quality monitoring performed at Five Mile Pond, Quarry Pond, and Forest Park Ponds (Fountain, Duck and Barney)	Continue volunteer relationship with Springfield schools or identify new volunteer opportunities.
Revised					
2-1c	Vegetative Cover Data Collection	Planning Dept., Parks Dept.	Establish volunteer program to monitor ground cover at critical locations.	1) GIS/GPS technology used to manage tree planting and staffing, 2) The Springfield Forestry Division utilizes the iTree Suite of software to evaluate the structure, function, and value of the urban forest. The software allows City forestry staff to attribute values to a wide range of tree benefits including air pollution mitigation, storm water interception, and energy savings	Coordinate with volunteer organizations, and continue to perform ground cover assessment as staffing and funding allows.
Revised					

2-1d	Earth Day clean-up	Museum Assoc., Dept. of Public Works, Planning Dept.	Plan and conduct Earth Day events.	Combined Earth Day/Keep Springfield Beautiful event on May 2 nd , 2015 included stormwater education materials, tree planting, and trash cleanup. Earth Day cleanup collected 13.38 tons of trash, .75 tons of recyclable metal, and 1.6 tons of tires to be recycled.	Continue stormwater and clean-up components of these events
Revised					
2-2	Stormwater Management Plan Public Participation	Dept. of Public Works	DPW will make stormwater plan available to public.	1) "2003 Summary Report on Water Quality for Springfield's Lakes and Ponds" available to public. 2) City-wide Stormwater Management plan made available by the In-house Stormwater Steering Committee. 3) Illicit Discharge Detection and Elimination Ordinance passed by City Council in September of 2013. 4) General pre and post construction stormwater management bylaw passed by City Council in September of 2013.	Provide update information on 2003 Summary Report to public as it is developed. Continue to meet monthly with department heads assigned to Stormwater Steering Committee.
Revised					
2-3a	Household Hazardous Waste Collection	Dept. of Public Works	Hold Haz. Collection Day for residents to drop off materials for disposal.	1) Advertised collection day through bill stuffers, newspaper and flyer distribution. 2) Held six collection events to limit possibility of illegal dumping of hazardous material. Approximately 5,445 gallons of hazardous materials collected	Continue to advertise and hold Hazardous Material Collection Event for households Citywide.
Revised					
2-3b	Bulk Item Collection	Dept. of Public Works	Residents can call to schedule Bulk Material Collection Day of up to 5 items.	Bulk Collection Program on-going with residents able to call to schedule pickups. Approximately 705 tons bulk material land filled.	Continue to make program available to residents if funding allows.
Revised					

2-3c	Curbside Collection	Dept. of Public Works	Residential recycling is to be picked-up every other week year round. Recycling is required per Springfield ordinance.	Single stream program continued. Program on-going; 7,043 tons recycled.	Continue to make program available to residents.
Revised					
2-3d	Rechargeable Battery Recycling	Dept. of Public Works	Maintain residential drop-off of rechargeable batteries at DPW.	Continued collection program on-going. 400 pounds of batteries collected	Continue to make program available to residents.
Revised					
2-3e	Leaf and Yard Waste Collection	Dept. 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. 8,192tons of yard waste composted. Free compost available for public in Spring 2016.	Continue to make program available to residents.
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Future Permit
3-1a	Sewer Book Maintained	Dept. of Public Works	Maintain existing drainage system map.	1) The traditional hand drawn/edited sewer book has been changed to a G.I.S. based map book. (Sec: 3.1.6 Annual CSO and CMOM Report CY 2015) The SWSC maintains a detailed sewer book (i.e. its wastewater collection system atlas) that covers the entire collection system. This document is updated frequently as changes are made to the collections system or as record discrepancies are discovered. Based on the advancement of the quality and certainty of the GIS data. The sewer book underwent a major overhaul in CY 2015 bringing it up to the high standards of the new and improved collection system GIS.	1) Continue update on sewer and drainage system book as new system are constructed/upgraded. 2) Require all new developers to provide AutoCAD files of design plans to aid in update.
Revised					
3-1b	Sewer GIS Available	Dept. of Public Works, Water & Sewer Commission	GIS mapping of infrastructure.	The SWSC is continuously updating its Sewer G.I.S. database. Typically SWSC updates the entire database approximately 2-3 times annually. Updates contain edits and new information acquired in the field through CCTV, Cleaning, GPS, and	1) Continue update of GIS system as systems are constructed or upgraded. 2) Require all new developers to provide AutoCAD files of design plans to aid in update. 3) To implement standardized

Revised				other field investigations. The following information was obtained through the sub-contracted Pipeline Assessment Program (Sec: 3.1.1, 3.1.6 Annual CSO and CMOM Report CY 2015): a. 233 tons of grit was removed. b. 109,950 linear feet or 4.4% of mainline sewer pipe was inspected. c. 840,450 linear feet or 33.9% of the mainline sewer pipe was maintained. d. Year to date the Pipeline Assessment Program has clean and maintained 1,765,500 linear feet or 71.3% of the entire mainline sewer system. e. 2,035 points in the collection system were located by GPS, resulting in 1,327 manholes and 1,607 pipe segments that were geospatially updated and asset attributes were also updated.	data collection methods and to develop a sewer atlas for operations crews.
3-2a	Illicit Discharge Ordinance Development — Evaluate Existing Illicit Discharge Ordinances	Dept. of Public Works, Planning Dept., Water & Sewer Commission	Review current City ordinance. Obtain and review ordinances from other communities.	Sample ordinances reviewed.	Task completed.
Revised					
3-2b	Illicit Discharge Ordinance Development — Develop Draft Ordinance	Dept. of Public Works, Planning Dept., Water & Sewer Commission	Draft new wording. Educate public, officials, and the private sector.	Draft ordinance has been developed based on template from MA DEP. Ordinance has been reviewed and approved by Stormwater Steering	Task completed

Revised				Committee and supported by Mayor.	
3-2c	Illicit Discharge Ordinance Development — Draft Available For Comment	Dept. of Public Works, Planning Dept., Water & Sewer Commission	Float new ordinance for one-year comment period. Continue education.	Illicit Discharge and Pre/Post-Construction SW Management Ordinances approved by City Council, September 2013.	Task Completed
Revised					
3-2d	Illicit Discharge Ordinance Development — Passage Process	Dept. of Public Works, Planning Dept., Water & Sewer Commission	Attempt to pass ordinance, continue comment period and educate more if necessary.	Illicit Discharge and Pre/Post-Construction SW Management Ordinances approved by City Council, September 2013.	Task Completed
Revised					
3-3a	Determine Priority Areas	Dept. of Public Works, Water & Sewer Commission	Determine priority areas. Inspect outlets at two water bodies per year.	The Washburn Street CSO Project is currently in the substantial completion stage. During the Washburn Street CSO Project, portions of Bernie Avenue, Washburn Street, South Plainfield Street, and portions of Main Street were separated. The Washburn CSO Project has a total value of \$20,000,000. The SWSC is also spending approximately \$8,000,000 on rehabilitation and replacement of 3 CSO outfalls (CSOs 012,013,018, this project is ongoing and part of the MIS Rehabilitation Project).	1) Establish priorities for 2012-2013 as finances allow. 2) Establish and coordinate volunteer inspection programs as finances allow.
Revised					
3-3b	Inspections	Dept. of Public Works	Visually screen outfalls.	- Inspections continued — three hundred forty-seven (347) outfalls	Establish inspection criteria and program for implementation.

Revised				inspected by DPW staff. All outfalls inspected, 121 tested for dry weather flow -Complete IDDE program report is being submitted concurrently with this report to EPA - Water and Sewer commission inspected all CSO's twice per week.	
3-3c	Investigation	Dept. of Public Works, Water and Sewer Commission	Trace the source of illicit discharges.	Ongoing formal investigation program in place. All outfalls inspected over the past year.	Continue program.
Revised					
3-3d	Correct any problems found	Dept. of Public Works, Water & Sewer Commission	Remove source of illicit discharges.	1 Illicit service connections located and repaired at Alden Street. - aging septic system taken off line at Phaneuf Environmental Center and connected to sanitary system.	Continue program of inspection, investigation, and correction.
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Future Permit
4-1	Wetland Protection	Conservation Commission	Review existing regulations which require compliance with stormwater policy within wetland buffer.	1) On-going pre-construction review of new projects for permit issuance and compliance with wetland and SWM performance standards. One highlight is a hydrodynamic separator installed at catch basin which directly drains a large commercial parking lot to Loon Pond. 2) City construction site plan requirements are available on the web. DPW requiring, to maximum extent practicable, infiltration on all new projects. No net increase in runoff post construction. 3) MA Wetland Protection Act stormwater management standards enforced by Conservation Commission. 4) 1 enforcement actions taken, restoration plans implemented following action. 5) Natural Resources Manager maintained CESSWI certification	On-going review of new projects.
Revised					
4-2a	Erosion and Sediment Control Ordinance — Evaluate Existing Plans	Conservation Commission, Law Dept., Dept. of Public Works, Planning Dept.	Review sample regulations for other communities. Initiate discussions for ordinance establishment	Sample ordinances reviewed.	Task completed.
Revised					
4-2b	Erosion and Sediment Control Ordinance — Develop Draft Ordinance	Conservation Commission, Law Dept., Dept. of Public Works, Planning Dept.	Draft new wording. Educate public, officials, and the private sector.	Draft ordinance has been developed based on template template from MA DEP and ordinances/bylaws adopted by other municipalities and was reviewed by Stormwater Steering Committee. This will be incorporated into one over arching ordinance that includes post-construction runoff requirements.	Task completed.
Revised					

4-2c	Erosion and Sediment Control Ordinance — Draft Available For Comment	Conservation Commission, Law Dept., Dept. of Public Works, Planning Dept.	Float new ordinance for one-year comment period. Continue education.	Currently reviewed and comments received.	Task completed
Revised					
4-2d	Erosion and Sediment Control Ordinance — Passage Process	Conservation Commission, Law Dept., Dept. of Public Works, Planning Dept.	Attempt to pass ordinance, continue comment period and educate more if necessary.	Ordinance passed by City Council, September 2013.	Task completed
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 10	Planned Activities – Future Permit
5-1	Wetland Protection	Conservation Commission, Dept. of Public Works	Review existing regulations which require compliance with stormwater policy within wetland buffer.	1) Ongoing pre-construction review of new projects for permit issuance and compliance with wetland and SWM performance standards. 2) Encouraged Low Impact design of stormwater infrastructure in new projects. Three new projects completed using LID techniques. State fire training facility completed, implementing state of the art reclamation system and infiltration/retention BMPs. Rain gardens installed at Camp Wilder, North Riverfront Park and Camp Star Projects. 3) All new projects reviewed by DPW required to implement infiltration BMPs to maximum extent practicable. No net increase in runoff, post construction. DPW projects of note: Boston Road project completed updating 2 miles of infrastructure installing approximately 60 deep sump basins; all new arterial projects implement deep sump replacement.	Continue discussion of Interdepartmental Site Plan Review Committee.
Revised					
5-2a	Site Plan Review Process	Conservation Commission, Dept. of Public Works, Planning Dept	Require TSS removal for groundwater recharge. Attenuate peak flows.	1) Continued requiring infiltration and TSS removal for new developments. 2) SWMS maintenance plan for non-wetland sites in developed. 3) Zoning ordinance controls site plan reviews. 4) Zoning modernization project completed. Site plan review process in place.	1) Continue enforcing design requirements. 2) Establish SWMS maintenance plan for non-wetland sites. 3) Complete development of BMP implementation database. 4) Continue zoning ordinance passage process.
Revised					

5-2b	Evaluate for Changes and Improvements	Conservation Commission, Dept. of Public Works, Planning Dept.	Assess existing procedures and make improvements to process.	New zoning ordinances is in place and available (funded by \$90,000 grant noted in previous permit years).	Continue site plan review, make updates as necessary.
Revised					
5-3a	New Bylaw For Post-Construction Runoff — Evaluate Existing Site Plan Process	Conservation Commission, Dept. of Public Works, Planning Dept.	Assess need for new bylaw/ordinance regarding maintenance of BMPs.	1) Site plan review committee to be established after citywide revision of review process is complete. 2) Sample ordinances reviewed 3) Ordinance passed by City Council, September 2013	Continue discussion of Interdepartmental Site Plan Review Committee.
Revised					
5-3b	New Bylaw For Post-Construction Runoff — Develop Draft Guidelines	Conservation Commission, Dept. of Public Works, Planning Dept.	Draft new wording. Educate public, officials, and the private sector.	Draft ordinance has been developed based on template template from MA DEP and ordinances/bylaws adopted by other municipalities and is undergoing final review. Draft currently incorporated into sedimentation and erosion control ordinance. One ordinance will be created to control run off in general as well as in post-construction conditions. Formally approved by Stormwater Steering Committee.	Task Complete
Revised					
5-3c	New Bylaw For Post-Construction Runoff — Draft Available For Comment	Conservation Commission, Dept. of Public Works, Planning Dept.	Float new bylaw for one-year comment period. Continue education.	Comments received.	Task Complete
Revised					
5-3d	New Bylaw For Post-Construction Runoff — Passage Process	Conservation Commission, Dept. of Public Works, Planning Dept.	Attempt to pass bylaw, continue comment period and educate more if necessary.	Ordinance passed by City Council, September 2013	Task Complete
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 10	Planned Activities – Future Permit
6-1a	Street Sweeping — Winter Cleanup	Dept. of Public Works	Sweep streets a minimum of once per year.	1) Seasonal operation for calendar year 20145 began in April. One round of residential sweeping was completed. Main arterials were swept twice. The downtown business improvement district was swept weekly. 2) Total tonnage collected: 3,006 tons of debris	Continue with established practices.
Revised					
6-1b	Street Sweeping — Ongoing	Dept. of Public Works	Re-establish normal sweeping program of 6-times per year as funding allows	1) Sweeping ongoing, total tonnage collected: 3,006 tons.	Continue established schedule and increased sweeping frequency as funding allows.
Revised					
6-1c	TMDL Targeted Sweeping Areas	Dept. of Public Works	Loon Pond, Long Pond, and Mona Lake areas will receive additional sweeping	Areas swept as part of regular maintenance. Additional sweeping occurred, although no tonnage specific to the particular area was recorded.	Implement enhanced sweeping program in 2013/14 if budget allows.
Revised					
6-1d	Catch Basin Cleaning	Dept. of Public Works	Re-establish catch basin cleaning program as budget allow.	383 basins cleaned, removing 115 tons of debris from the system. The vac truck was disabled for a period of time, but activities resumed and an additional 101 catch basins cleaned.	Continue cleaning schedule as needed and as budget allows.
Revised					
6-1e	Tree Planting	Dept. of Public Works, Parks Dept.	Replace ailing trees and plant new trees in public areas.	1) Following the devastation of the June 2011 tornado and October 2011 snowstorm, an extensive tree planting effort continues: 320 trees planted by Springfield Forestry in FY 15 and 160 planted thus far in FY 16.	Continue tree planting program.

Revised				2) Keep Springfield Beautiful, a local non-profit, continues work to clean streets/parcels and beautify the City. 3) ReGreen Springfield continues to sponsor tree planting programs throughout the City. Approximately 1,000 seedlings planted at various sites	
6-1f	Assess Drainage System in TMDL Areas	Dept. of Public Works	Assess condition of catch basins and outfalls at Long Pond, Loon Pond, and Mona Lake, and consider possible improvements.	1) Continued catch basin and outfall inspection conducted near Mona Lake. All outfalls inspected with follow up testing for dry weather flows. Full details are included in the concurrent report being submitted to EPA regarding the City's IDDE program.	Consider further improvements to drainage systems at Long Pond, Loon Pond, and Mona Lake as budget priorities allow.
Revised					

6-2a	Existing Practices	Dept. of Public Works	Continue existing housekeeping practices to minimize stormwater pollution.	Practices continued. Examples include: - Recycling and reduction of hazardous materials - Salt storage within salt shed - Maintenance of drainage system BMPs - Spill prevention and cleanup procedures - Oil/water separators at all fire stations, police department and facilities parking areas. - Stormwater reclamation system installed at new Putnum High School	Continue existing practices.
Revised					
6-2b	Leaf Disposal	Dept. of Public Works, Parks Dept., School Dept.,	Leaf disposal by on-site composting.	1) Composting program on-going at DPW yard and landfill. Residents can also drop off yard waste directly at the landfill. Compost available for public through program. 2) Parks Dept. continued on-site leaf/debris composting and leaf mulching to reduce waste. 3) 8,192 tons of yard waste collected.	Continue to make program available to residents.
Revised					
6-2c	Litter Reduction	Dept. of Public Works, Conservation Commission	Reduce litter by installing "No Dumping" signs, make public waste containers available.	1) Clean City continues its efforts to remove illegal dumping. 2) Police Dept. monitored target areas for dumping 3) 38,439 tons of waste collected through municipal pickup. 4) Repair, replace "No Dumping" signs as needed. 5) Clean City responded to illegal dumping sites at conservation areas and cleaned refuse as needed.	1) Install more signs as funding allows. 2) Continue enforcement efforts.
Revised					
6-2d	Roadway Improvements	Dept. of Public Works, Conservation Commission, Parks Dept.	Include stormwater BMPs in any improvement projects in sensitive areas.	Continued existing program, including 4-foot sumps in catch basins and requiring infiltration from new subdivisions prior to discharge into city systems. 2) deep sump catch basins installed by Water	Continue existing program.

Revised				and Sewer. 3) Repairs to 56 catch basins, storm manholes and laterals were completed.	
6-3	Employee Education	Dept. of Public Works	Develop training on spill prevention, recycling, hazardous waste storage, site maintenance, and illicit discharges. Perform training annually, and provide training materials to Parks Dept., School Dept., Police Dept., and Fire Dept..	1) Water and Sewer established Resource Conservation Committee that meets quarterly to train staff and hand out informational materials. 2) City of Springfield Stormwater Steering Committee meets regularly. 3) Water and Sewer holds extensive trainings for all employees. 43 Trainings were held for 625 employees 4) Facilities employees trained to use non-toxic cleaning supplies and have an integrated pest management program to reduce toxics at fields and playgrounds	Conduct a training session on stormwater protection for DPW staff.
Revised					
6-4a	Catch Basin Improvements	Dept. of Public Works	Maintain and upgrade catch basins as needed.	Repairs to 56 catch basins, storm manholes and catch basin laterals made.	On-going program to be maintained.
Revised					
6-4b	Outlet Inspections	Dept. of Public Works	Inspect system outfalls of sewers and CSOs.	1.) Outlets inspected as part of survey efforts. U.S. Waters inspects and monitors City combined sewer overflows (CSOs) twice per week. 2) a total of 347 outfalls inspected by DPW. 3.) ~\$20 million spent in CSO separation projects at Washburn street and \$8 million planned for rehab and replacement of 3 CSO's on CT River.	On-going program to be maintained.
Revised					
6-4c	Design and Construction of BMPs	Dept. of Public Works, Water & Sewer Commission, Conservation Commission, Parks Dept.	Control sediment and improve detention areas at Briarwood and Middlesex outfalls	1) Saint James Ave. outfall area has been topographically surveyed and submitted for design and improvements. Project awaiting funding. 2) Briarwood improvement construction completed with funding from Water & Sewer	Complete St. James Ave. design and put construction program to bid in 2015-2016 if budget and timing allow.

Revised				Commission. Yearly maintenance continues on sediment basins.	
6-4d	Conservation Land Improvements	Dept. of Public Works, Water & Sewer Commission, Conservation Commission	Gather data for possible improvements to drainage or pollution prevention on conservation land.	1) Cleanups were conducted at 3 conservation parcels. 2) Surveys conducted on 5 conservation areas. 3) Trail system for white cedar bog rehabbed by SCA student projects. 4) ATV rider caught and cited at one location by ordinance police. 5) Abbey Brook conservation area focus of 5 Star Urban Waters Grant Project. Invasive species rehabilitation, stormwater intervention and pollution prevention and public/student education the primary goals.	Identify possible improvements to conservation land and complete as budget allows.
Revised					
6-5a	Acquisition of Open Space	Conservation Commission, Parks Dept.	Acquire open space through grants and donations.	1) Rear Tinkham Road conservation property acquired, 10.6 acres of forest land protected. 2) Balliet Park created, Liberty Street vacant land converted to park, North Riverfront Park created.	Continue to acquire land through donations and grants.
Revised					
6-5b	Park Improvements	Conservation Commission, Parks Dept.	Improve park lands, especially improvements to stormwater collection system and BMPs.	1) Three new parks acquired/created. Improvement projects occurred at Camp Star Angelina and Nathan Bill Parks. Rain gardens installed at North Riverfront Park, Camp Star and Camp Wilder Parks. Rain Gardens are being installed at Renaissance High School.	Continue improving parks as necessary as budget allows.
Revised					

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Future Permit
1-3a	Stormwater Matters Talk	Dept. of Public Works, Planning Dept.	Presentation on stormwater will be given once per year at public event or meeting	1.) As part of CT Stormwater Committee, we sponsored stormwater pollution prevention talks at local events throughout the year and a Green Infrastructure Workshop, Vendor Fair and rain garden Workshop. 2.) One talk given to science students at Duggan Middle School about stormwater pollution. Continued water/waste water/stormwater lessons to all 5 th and 7 th graders at the Bondi's Island Treatment facility 3.) Water and Sewer implemented Rain Barrel distribution in partner with EPA Watersense Program 4) Parks Department is transitioning to a complete organic grounds maintenance program	Schedule stormwater matters talk with neighborhood councils. Provide update on past year's efforts, identify new volunteers, and establish schedule of tasks to be accomplished.
Revised					
1-5b	Stormwater Display	Dept. of Public Works, Conservation Commission, Planning Dept.	Establish a stormwater display at DPW one month per year.	1) Continued display of stormwater education materials in lobby of DPW and Planning Department 2) Continued participation with Pioneer Valley Planning Commission (PVPC) and Connecticut River Stormwater Committee, which develops stormwater education programs. Dues paid for 2015-2016 year.	1) Continue display effort. 2) Refine and improve display as funding allows. 3) Continue participation with PVPC and Connecticut River Stormwater Committee in developing stormwater education programs.
Revised					

1-5c	Educate Local Business	Dept. of Public Works, Conservation Commission, Planning Dept.	Assess stormwater educational opportunities with Business and Industries.	1) Conservation Commission held pre-design meetings to educate developers on the importance and cost-effectiveness of proper stormwater maintenance. Infiltration and rain garden BMP's implemented in all suitable sites subject to wetland jurisdiction, implemented pursuant to MA DEP's Stormwater Management policy 2) "Preventing Stormwater Pollution Fact Sheets" continued to be distributed to target Automotive, businesses and food industry. 3) A hydrodynamic separator was installed to replace an aging catch basin in the Loon Pond watershed. This install treats a large commercial parking lot and adjacent roadways.	1) Con Comm to continue holding pre-design meetings with development project proponents. 2) Continue to educate the public through multiple media.
Revised					
1-5d	Display Materials	Dept. of Public Works, Planning Dept.	Assess existing City events for opportunities to display stormwater materials.	1) Earth Day Cleanup 2016 identified as event for Stormwater Display. 2) Stormwater educational material display continued in lobby of DPW (see 1-5b) and City Hall. 3) Stormwater web materials made available on DPW-Engineering and Conservation Commission website	1) Continue display effort. 2) Refine and improve display as funding allows.
Revised					
2-3a	Household Hazardous Waste Collection	Dept. of Public Works	Hold Haz. Collection Day for residents to drop off materials for disposal.	1) Advertised collection day through bill stuffers, newspaper and flyer distribution. 2) Held six collection events to limit possibility of illegal dumping of hazardous material. Approximately 5,445 gallons of hazardous materials collected	Continue to advertise and hold Hazardous Material Collection Event for households' city wide.
Revised					

2-3e	Leaf and Yard Waste Collection	Dept. 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. 8,192 tons of yard waste composted. Free compost available for public in Spring 2016.	Continue to make program available to residents.
Revised					
4-1	Wetland Protection	Conservation Commission	Review existing regulations which require compliance with stormwater policy within wetland buffer.	1) On-going pre-construction review of new projects for permit issuance and compliance with wetland and SWM performance standards. One highlight is a hydrodynamic separator installed at catch basin which directly drains a large commercial parking lot to Loon Pond. 2) City construction site plan requirements are available on the web. DPW requiring, to maximum extent practicable, infiltration on all new projects. No net increase in runoff post construction. 3) MA Wetland Protection Act stormwater management standards enforced by Conservation Commission. 4) 1 enforcement actions taken, restoration plans implemented following action. 5) Natural Resources Manager maintained CESSWI certification	On-going review of new projects.
Revised					
4-2a	Erosion and Sediment Control Ordinance — Evaluate Existing Plans	Conservation Commission, Law Dept., Dept. of Public Works, Planning Dept.	Review sample regulations for other communities. Initiate discussions for ordinance establishment	Sample ordinances reviewed.	Task completed.

Revised					
4-2b	Erosion and Sediment Control Ordinance — Develop Draft Ordinance	Conservation Commission, Law Dept., Dept. of Public Works, Planning Dept.	Draft new wording. Educate public, officials, and the private sector.	Draft ordinance has been developed based on template from MA DEP and is undergoing further revision. This is combined with post-construction requirements in one comprehensive ordinance.	Task completed
Revised					
4-2c	Erosion and Sediment Control Ordinance — Draft Available For Comment	Conservation Commission, Law Dept., Dept. of Public Works, Planning Dept.	Float new ordinance for one-year comment period. Continue education.	Drafted and comments received	Task completed
Revised					

4-2d	Erosion and Sediment Control Ordinance — Passage Process	Conservation Commission, Law Dept., Dept. of Public Works, Planning Dept.	Attempt to pass ordinance, continue comment period and educate more if necessary.	Delayed pending scheduling with City Council, summer 2013.	Pass new ordinance when scheduled before council.
Revised					
5-3a	New Bylaw For Post-Construction Runoff — Evaluate Existing Site Plan Process	Conservation Commission, Dept. of Public Works, Planning Dept.	Assess need for new bylaw/ordinance regarding maintenance of BMPs.	1) Site plan review committee to be established after citywide revision of review process is complete. 2) Sample ordinances reviewed for use in developing draft for Springfield.	Continue discussion of Interdepartmental Site Plan Review Committee.
Revised					
5-3b	New Bylaw For Post-Construction Runoff — Develop Draft Guidelines	Conservation Commission, Dept. of Public Works, Planning Dept.	Draft new wording. Educate public, officials, and the private sector.	Draft ordinance has been developed based on template from MA DEP and is undergoing further revision. Draft currently incorporated into sedimentation and erosion control ordinance. One ordinance will be created to control run off in general as well as in post-construction conditions. Formally approved by Stormwater Steering Committee.	Select appropriate strategy for Springfield and create draft ordinance.
Revised					

5-3c	New Bylaw For Post-Construction Runoff — Draft Available For Comment	Conservation Commission, Dept. of Public Works, Planning Dept.	Float new bylaw for one-year comment period. Continue education.	Combined pre and post construction stormwater management ordinance approved by Springfield City Council September 2013	Task Completed
Revised					
5-3d	New Bylaw For Post-Construction Runoff — Passage Process	Conservation Commission, Dept. of Public Works, Planning Dept.	Attempt to pass bylaw, continue comment period and educate more if necessary.	Combined pre and post construction stormwater management ordinance approved by Springfield City Council September 2013	Task Completed
Revised					
6-1a	Street Sweeping — Winter Cleanup	Dept. of Public Works	Sweep streets a minimum of once per year.	1) Seasonal operation for calendar year 20145 began in April. One round of residential sweeping was completed. Main arterials were swept twice. The downtown business improvement district was swept weekly. 2) Total tonnage collected: 3,006 tons of debris	Continue with established practices.
Revised					
6-1b	Street Sweeping — Ongoing	Dept. of Public Works	Re-establish normal sweeping program of 6-times per year as funding allows	1) a total of 3,006 tons of debris collected throughout the year.	Continue established schedule and increased sweeping frequency as funding allows.
Revised					
6-1c	TMDL Targeted Sweeping Areas	Dept. of Public Works	Loon, Long and Mona areas will receive additional sweeping	Areas swept as part of regular maintenance schedule and additional sweeping measures added. No tonnage specific to the particular area was recorded.	Implement enhanced sweeping program in 2012 if budget allows.
Revised					
6-1f	Assess Drainage System in TMDL Areas	Dept. of Public Works	Assess condition of catch basins and outfalls at Long Pond, Loon Pond, and Mona Lake, and consider possible improvements.	1) continued catch basin inspection conducted near Mona Lake.	Consider further improvements to drainage systems at Long, Loon, and Mona as budgets.
Revised					

6-2a	Existing Practices	Dept. of Public Works	Continue existing housekeeping practices to minimize stormwater pollution.	Practices continued. Examples include: - Recycling and reduction of hazardous materials - Salt storage within salt shed - Maintenance of drainage system BMPs - Spill prevention and cleanup procedures	Continue existing practices.
Revised					

7b. WLA Assessment

Ongoing stormwater management requirements such as deep sumps in catch basins and infiltration practices for new developments have helped reduce stormwater and contaminant inputs to priority areas such as Loon Pond, Long Pond, and Mona Lake. One major improvement to Loon Pond was the installation of a hydrodynamic separator at the first “up-pipe” catch basin from a major outfall. All water draining a large commercial parking lot and adjacent streets is treated by this unit prior to discharge to the lake. Seasonal street sweeping has reached its scheduled levels for Springfield. Increased focus must be given to these TMDL areas over the coming years as we comply with the pending MA General permit is implemented. As the City is preparing for the next round of NPDES general permits, we are striving to prioritize funding with the new regulatory requirements.

Increasing street sweeping around Loon Pond, Long Pond, and Mona Lake (as required by item 6-1c) as the City’s budgetary constraints ease will be a high priority.

Part IV. Summary of Information Collected and Analyzed

The past year saw an aggressive focus on the City’s illicit discharge detection and elimination program. All outfalls were inspected for dry weather flow. Through a competitive RFP process a firm was selected to carry out the analytical water quality testing of dry weather flow sites with 121 outfalls tested. One major illicit connection was taken off line at Alden Street with the program planning to eliminate all sites that test positive for target pollutants. Volunteer efforts continue to be completed from a variety of organizers

including the Springfield Renaissance School, Groundwork Springfield, ReGreen Springfield, Keep Springfield Beautiful and local residents. Although considerable effort was expended last year focusing on stormwater pollution prevention, as always work remains challenging due to limited staff and budget resources. However, we were still able to complete the vast majority of goals and were able to expand certain programs. Highlights including 160 trees planted (FY16 thus far) by the City, 2,200 plantings regionally with our partnership with PVPC and nearly 16 tons of trash/debris/recyclables picked up on the annual Earth Day cleanup. Our Stormwater Steering Committee has continued to meet with regularity and in conjunction with the mayor's office. All new construction projects, whether in wetland jurisdiction or not, are required to incorporate infiltration BMPs and result in no net increase in runoff post construction. Stormwater BMP's continue to become commonplace in City park projects. 3 rain garden installation projects were implemented through a grant program offering technical assistance to residents. The park department installed three rain gardens at park locations and one pilot rain garden at a local high school.

Additional actions of particular importance over the recent permitting period were: **\$20 million** dollars devoted to Washburn CSO separation project, improving park land at Camp Wilder, Camp Star and North Riverfront Park, the acquisition of 10.6 acres of conservation land, comprehensive street sweeping, 484 catch basin cleaned, continued participation in the Pioneer Valley Planning Commission Regional Stormwater Committee, participating in the creation and implementation of a regional Green Infrastructure Action Plan and the actions of volunteers cleaning up our streets and open space. Many additional actions were taken over the past year including educating the public and local businesses about stormwater pollution at various events in the region. Please feel free to contact our office with additional questions or requests for copies of materials.