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**Municipality/Organization: City of Fitchburg**

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**EPA NPDES Permit Number: MAR041189**

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**MassDEP Transmittal Number: W-**

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**Annual Report Number Year 9**  
**& Reporting Period: April 1, 2011 – March 31, 2012**

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## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2012)

### Part I. General Information

Contact Person: Denis Meunier Title: Deputy Commissioner for Water

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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: 

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Printed Name: Lisa A Wong

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Title: Mayor

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Date: April 30, 2012

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## **Part II. Self Assessment**

The City of Fitchburg has completed the required self assessment and has determined that at the end of the ninth year reporting period the City was in compliance with all provisions of the approved NOI, except for the following provisions.

### **Part III PC-3: Operation and maintenance agreement:**

Inspection and sampling of active construction sites has confirmed that selected BMP's have been effective in meeting storm water control goals and limits.

In addition to the efforts outlined in Part III of this report the City has, during the designated reporting period, continued a storm water sampling program in selected drainage basins. Over the course of the first eight years of the stormwater program illicit connection detection efforts have resulted in the detection of 15 illicit connections to the stormwater system. During the course of this reporting year one additional illicit connection was detected and mapped in the Elm Street area of the City. All 16 illicit connections discovered during the nine years of the program were eliminated. Illicit connection detection to the storm water system continues to be an important part of the City's ongoing effort to map and characterize both the wastewater collection system as well as the storm drain system. To that end, the City has established a dedicated crew of three individuals that are assigned to the wastewater division. The collection system crew will, as part of their duties, be looking for illicit connection to the stormwater system. During the course of this reporting year the city added a full time professional engineer to the staff to directly supervise and plan the activities of the collection system crew. This new position joins a full time civil engineer position added to the Engineering Department in 2010. Together, these individuals will add significantly to the capability of the City to plan and initiate future storm water programs as well as providing the expertise necessary to monitor and analyze data currently collected.

During this reporting period the City has added a second catch basin cleaner. The additional piece of equipment has allowed the DPW to devote substantially more man hours to cleaning catch basins. The goal for this activity is to clean all catch basins in the City a minimum of once per year and to clean basins in identified problem areas multiple times per year. In addition, all City streets are now swept a minimum of twice per year with main lines being cleaned multiple times per year.

The City continues to partner with the Nashua River Watershed Association to conduct additional stormwater outfall sampling events during the year. The City is also an integral member of the Nashua River Greenway Committee. In part, the Committee's goal is to advocate for the protection, preservation, restoration, and responsible use Fitchburg's water resources, and riverfront land.

The City is in the process of evaluating and planning for the increased resources and program modifications that are anticipated as part of the requirements of revised storm water permit now in draft form for the Merrimack Watershed.

In year six of the program all known outfalls were inspected during dry weather. Samples were collected and analyzed for coliform bacteria, MBAS, and Nitrogen if flow was present. All outfalls were sampled during a rain event; samples were analyzed for Total coliform, E-Coli, MBAS, and Nitrogen. Sample results from five out of forty outfalls were identified as having elevated levels of bacteria. In this reporting year outfall samples from those five discharges were resampled and investigated for the possibility of illicit connections. Mapping and digital photos of all outfalls was completed during the sixth reporting period.

Part III Summary of Minimum Control Measures

Municipal Good Housekeeping

BMP ID #	BMP Description	Responsible Det./ Person	Measurable Goal	Progress on Goal Permit years 1 - 9	Planned Activities year 10
MH-1	Pet waste collection	BOH	Distribute brochures	Include educational material in water bill	continue activity
MH-2	Parking lot and street cleaning	DPW	Increase frequency	Street and parking lots sweeping program active nine months per year. All streets swept a minimum of twice per year. Main lines swept multiple times per year. Purchase new street sweeper	Continue program. Main Street now swept three times per week during summer and fall months.
MH-3	Catch basin cleaning	DPW	Implement program to track and increase frequency	Catch basin cleaning program active nine months per year. Second catch basin cleaner added to program. Additional man hours allocated to program goal is to clean all catch basins a minimum of 1x/yr.	continue program. Second catch basin cleaner added to fleet.
MH-4	Spill Response & Prevention	Fire Dept.	Formalize program provide education	Conduct annual review and training at specific sites including wastewater, water and DPW facilities	continue program.

Summary of Minimum  
Control Measures

Public Education and  
Outreach

BMP ID #	BMP Description	Responsible Det./ Person	Measurable Goal	Progress on Goal Permit years 1 - 9	Planned Activities year 10
PE-1	Partnership Program	Planning Dept.	Establish education and outreach program	<p>City established environmental task force. Group activities include streamside clean-up, community policing of environmental issues, outreach to schools and volunteer participation. City is also a member of the Nashua River Greenway Committee</p>	continue activity.
PE-2	Web Site Creation	Planning Dept.	Website for storm water pollution prevention	maintain City web site link to EPA storm water information	Continue activity
PE-3	Brochures and fact sheet	DPW	Door hangers distributed	Information mailer distributed via water and sewer bills	continue activity
PE-4	Classroom Education	School Dept.	50% of K-12 every 2 yrs.	Storm water education introduced as part of science curriculum grades 4 and 6	continue activity work with schools to expand education to other grade levels.

Summary of Minimum Control Measures

Part III

Public Involvement and Participation

BMP ID #	BMP Description	Responsible Det./ Person	Measurable Goal	Progress on Goal Permit years 1 - 9	Planned Activities year 10
PP-1	Watershed Organization	Water Dept. Public Private Partnership	Organize watershed Committee	Watershed land maps updated and overlaid on topo. maps. Sensitive land parcels identified and prioritized for purchase or protection. Work with Nashua River Watershed Group to perform storm water sampling identify illicit connections. work with North County Land Trust to establish conservation restriction on 1800 acres of watershed land. Purchase CR on 176 acres of private land for watershed protection. purchase in fee 100 acres of private watershed land.	Continue to pursue grant opportunities to protect additional watershed land and open space areas through conservation restrictions and purchase of private land in sensitive and critical watershed and buffer areas. Additional 24 acres of private land purchased for watershed protection. Sale closing in June 2012
PP-2	Stream cleanings	DPW	Civic Clean up days	Community service work crews from Dept. of Corrections performed stream side clean up. Civic clean up days held each spring in all City wards. Stream clean up part of program.	Continue program. Work with Nashua River Watershed Committee sampling and stream inspection programs.
PP-3	Storm drain stenciling	DPW	Civilian stenciling program	No progress made on stenciling program	Effort will be made to start stenciling program

Part III Summary of Minimum Control Measures

Post Construction Runoff Control

BMP ID #	BMP Description	Responsible Det./ Person	Measurable Goal	Progress on Goal Permit years 1 - 9	Planned Activities year 10
PC-1	Post construction runoff ordinance	Planning Dept.	Develop Ordinance	Standards and program developed by joint effort between Con-Com and City Engineering. Formalized into planning board requirements. Selected developments inspected for stormwater BMP maintenance and effectiveness. Conducted verbal review of requirements with Planning Board and Con-Com. found to be effective.	Continue practice and perform periodic reviews.
PC-2	Site plan review for post construction	Planning Dept.	Adopt Standards	Post construction site plan review conducted for all planned sub-divisions and major construction sites	Continue activity
PC-3	Operation and maintenance agreement	DPW	Develop Model	No progress made	Develop model and scope of work

Part III Summary of Minimum Control Measures

Construction Site Runoff Control

BMP ID #	BMP Description	Responsible Det./ Person	Measurable Goal	Progress on Goal Permit years 1 - 9	Planned Activities year 10
RC-1	Site Plan Review	Planning Dept.	Establish standards	Revised standards requiring BMP. Implemented and applied to all new construction regulated under Planning Board	Continue activity
RC-2	Erosion/Sediment control ordinance	Planning Dept.	Develop Ordinance	Existing ordinance updated	continue activity
RC-3	Storm water Pollution Prevention Plan	DPW	Require Plan for all projects	Plan required for all sub-division projects and major construction projects	Continue to review construction sites and other applicable projects for compliance.
RC-4	BMP measures for sediment/erosion	Con-Com	Establish for construction sites	Con-Com reviews and inspects sites for compliance with approved plans and BMP	Continue practice

Part III  
Summary of Minimum  
Control Measures

BMP's for Meeting TMDL

BMP ID #	BMP Description	Responsible Det./ Person	Measurable Goal	Progress on Goal Permit years 1 - 9	Planned Activities year 10
TM-1	Parking lot and street cleaning	DPW	Formalize Program	see municipal house keeping	continue activity
TM-2	Catch Basin cleaning	DPW	Formalize Program	see municipal house keeping	continuity activity
TM-3	Install deep sumps	Planning/ Engineering	Require all new development to install	Deep sumps installed in all new and rebuilt catch basins	prioritize all remaining catch basins without drop inlets
TM-4	Install gas and oil separators	DPW	Establish requirement	All new garage and other potential oil using activity required to install oil water separation	continue activity and inspect established locations for compliance
TM-5	Detention Basins	Planning/ Engineering	Establish design and requirement standards	Design and standards established. Enforce standards for new construction, inspect older construction for function and effectiveness	continue activity



Part III  
Summary of Minimum  
Control Measures

Illicit Discharge Detection  
and Elimination

BMP ID #	BMP Description	Responsible Det./ Person	Measurable Goal	Progress on Goal Permit years 1 - 9	Planned Activities year 10
ID-1	Storm Drain Map	DPW	Update Storm drain map	All known storm drains inspected for dry flow, sampled as necessary. All outfalls inspected and sampled during rain event. Mapping and digital photos completed. Resample and follow-up on target outfalls. 3 person collection crew and Civil Engineer tasked to allocate some time to storm water activities.	Additional PE added to staff for collection system supervision. Will devote time to storm water mapping.
ID-2	Non-storm water discharge ordinance	Planning	Non-storm water ordinance	ordinance in place	Review and upgrade to stormwater ordinance to comply with requirements in revised permit.
ID-3	Industrial/Business Connections	IDC	Establish monitoring program	Continue survey of industrial and commercial connections as part of combined sewer separation project	continue program
ID-4	Illicit discharge elimination	BOH / DPW/Wastewater	Establish Program	Illicit connection program established. Total of 16 illicit sewer connections to storm system identified and eliminated	Planning stage to implement increased stormwater IDDE requirements posted in draft revised permit.
ID-5	Illegal dumping task force	Public private partnership	Form Task Force Quarterly Meetings	City established environmental task force. A public and private partnership. Group activities include streamside clean-up, community policing of environmental issues, outreach to schools and volunteer participation	Continue program