

# Stormwater Program Management Plan

---

**Permit Cycle III: Permit Year 2**  
July 1, 2014 to June 30, 2015

---

for

City of Westbrook  
2 York Street  
Westbrook, Maine 04092

207-854-0660

[www.westbrookmaine.com](http://www.westbrookmaine.com)

# Table of Contents

1. Introduction .....	3
1.1 Overview of Regulatory Process.....	3
1.2 Stormwater Program Management Plan .....	3
1.3 Minimum Control Measures (MCMs).....	3
1.4 Annual Reporting and Record Keeping .....	4
1.5 Impaired Waters and Total Maximum Daily Load (TMDL) .....	5
1.6 Basis for Plan Development .....	5
2. Regulated MS4 Information .....	6
2.1 Location Map.....	6
2.2 Urbanized Area Map .....	6
2.3 Priority Watersheds.....	6
2.4 Priority Watershed Maps .....	6
3. Minimum Control Measures.....	7
3.1 Public Education and Outreach .....	7
3.2 Public involvement and Participation .....	11
3.3 Illicit Discharge Detection and Elimination .....	12
3.4 Construction Site Stormwater Runoff Control .....	15
3.5 Post-Construction Stormwater Management.....	16
3.6 Pollution Prevention/Good Housekeeping for Municipal Operations .....	18
4. General Requirements.....	21
4.1 Certification.....	21
4.2 Plan Availability .....	21
Figures	
2.1 Location Map.....	22
2.2 Urbanized Area Map .....	23
Appendices	
A - Notice of Intent.....	28
B - Urban Impaired Streams .....	30
C - Permits Year 1 Summary of Minimum Control Measures 1 & 2.....	Attached

D - Public Notice & Meeting Attendance.....	32
E – Public Event Involvement and Participation.....	Attached
F – Outfall Inspections Data.....	None PY2
G – Chapter 500 Tracking.....	35
H – Chapter 500 Tracking.....	40

## Section 1: Introduction

### *Section 1.1 Overview of Regulatory Program*

The General Permit for Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (heretofore referenced as the “General Permit”) was issued by the Maine Department of Environmental Protection (DEP) on July 1, 2013. The General Permit authorizes the direct discharge of stormwater from or associated with a regulated small municipal separate storm sewer system (“MS4”) to an MS4 or waters of the State other than groundwater. Discharges must meet the requirements of the General Permit and applicable provisions of Maine’s waste discharge and water classification statutes and rules. Compliance with the General Permit authorizes a person to discharge stormwater, pursuant to 38 M.R.S.A. § 413. The General Permit authorizes direct discharges in those parts of Maine for which the Department has received delegated authority under the Federal NPDES program. Several key requirements of the General Permit are described below.

### *Section 1.2 Stormwater Program Management Plan*

The regulated small MS4, the City of Westbrook, shall develop, implement, and enforce a Stormwater Program Management Plan (Plan) implementing six minimum control measures (MCMs), set forth in Section H of the General Permit, which are designed to reduce the discharge of pollutants within the Urbanized Area (UA) from its regulated small MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. Maximum extent practicable is generally a focus on pollution prevention and source control. Maximum extent practicable is an iterative process with an ultimate goal of protecting and improving water quality. For the purposes of the General Permit, narrative effluent limitations requiring implementation of best management practices (BMPs) are generally the most appropriate form of effluent limitations when designed to satisfy technology requirements (including reductions of pollutants to the maximum extent practicable) and to protect water quality. The City of Westbrook shall describe in its Plan how it will reduce or eliminate polluted stormwater runoff to the maximum extent practicable within the UA, from its MS4.

### ***Section 1.3 Minimum Control Measures (MCMs)***

The General Permit requires that for each MCM, the City of Westbrook shall: define appropriate BMPs; designate a person(s) responsible for each BMP; define a time line for implementation of each BMP; and define measurable goals for each BMP. The minimum control measures to be included in the Plan are as follows:

MCM 1: Public education and outreach on stormwater impacts

MCM 2: Public involvement and participation

MCM 3: Illicit discharge detection and elimination

MCM 4: Construction site stormwater runoff control

MCM 5: Post-construction stormwater management in new development and redevelopment

MCM 6: Pollution prevention/good housekeeping for municipal operations

### ***Section 1.4 Annual Reporting and Record Keeping***

The City of Westbrook shall keep records required by the General Permit for at least three (3) years following its expiration or longer if requested by the Commissioner. The City of Westbrook shall make records, including its Stormwater Program Management Plan, available to the public at reasonable times during regular business hours. By September 1, 2014, and annually thereafter by September 1, the permittee shall submit a report for the Department's review and approval to:

Municipal/Industrial Stormwater Coordinator  
Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0017

The report must include the following:

- a. The status of compliance with permit conditions based on the City of Westbrook's Plan, an assessment of the appropriateness of identified BMPs, progress towards achieving identified measurable goals for each of the MCMs, and progress toward achieving to goal of reducing the discharge of pollutants to the maximum extent practicable.
- b. Results of information collected and analyzed, including monitoring data, if any, during the reporting period.
- c. A summary of the stormwater activities the City of Westbrook intends to undertake pursuant to its Plan during the next reporting cycle.
- d. A change in any identified BMPs or measurable goals that apply to the Plan.

e. A summary describing the activities, progress, and accomplishments for MCMs 1-6 (including such items as the status of education and outreach efforts, public involvement activities, stormwater mapping efforts, dry weather inspections, detected illicit discharges, detected illicit connections, illicit discharges that were eliminated, construction site inspections, number and nature of enforcement actions, post construction BMP status and inspections, and the status of the City of Westbrook's good housekeeping/pollution prevention program.

Changes to the report based on the Department's review comments(s) must be submitted to the Department within 30 days of the receipt of the comment(s). If possible, the City of Westbrook will provide an estimate of annual expenditures for permit compliance for the reporting period and projected budget for the following year.

### ***Section 1.5      Impaired Waters and Total Maximum Daily Load (TMDL)***

If the water body to which a discharge drains is impaired and has an EPA approved TMDL, then the discharge must be consistent with the TMDL waste load allocation and any implementation plan. If a TMDL is approved or modified by EPA subsequent to the effective date of this General Permit, the Department shall notify the City of Westbrook and may:

1. Require the City of Westbrook to review its Plan for consistency with the TMDL, and propose any necessary modification to the Plan to be submitted to the Department within six months of the receipt of notification concerning the TMDL;
2. Issue a watershed-specific General Permit for the area draining to the impaired water body, which may reference parts of the General Permit; or
3. Require an individual permit.

### ***Section 1.6      Basis for Plan Development***

This Stormwater Program Management Plan was developed in accordance with the requirements of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s), which was issued by the Maine Department of Environmental Protection (DEP) on July 1, 2013. Per the General Permit, implementation of the six MCMs is required only within the urbanized area, as defined by the latest decennial (2010) census by the U.S. Bureau of Census, of the regulated small MS4.

## **Section 2: Regulated MS4 Information**

### ***Section 2.1      Location Maps***

The location map for the City of Westbrook is included as Figure 2.1.

### ***Section 2.2      Urbanized Area Map***

The urbanized area map was developed from the U.S. Census Bureau Census 2010 Urbanized Area and Urban Cluster Data, and is included as Figure 2.2.

### ***Section 2.3      Priority Watersheds***

The City of Westbrook's two highest priority watersheds are Mill Brook and Long Creek.

### ***Section 2.4      Watershed Maps***

The watershed maps identify the two highest priority watersheds and are included as Figure 2.3

## Section 3: Minimum Control Measures

### *MCM 1 - Public Education and Outreach*

The City of Westbrook will fulfill the requirements for Public Education and Outreach through participation in the Interlocal Stormwater Working Group (ISWG) and the City of Westbrook's provision of funding to the ISWG for Public Education and Outreach services, as described in this section of the plan.

#### MCM Goals

1. To raise awareness that polluted stormwater runoff is the most significant source of water quality problems for Maine's waters;
2. To motivate people to use Best Management Practices (BMPs) which reduce polluted stormwater runoff ; and
3. To reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs.

### *BMP 1.1 - Continue Awareness Outreach Efforts from the previous MS4 permit cycle*

***Party Responsible for Completion:*** City Engineer

***Party Responsible for Development:*** ISWG Education Coordinator

**Measurable Goal 1.1.1** – In Permit Year 2, the ISWG and the City of Westbrook will implement awareness activities outlined in the revised Statewide Awareness Plan. Activities include:

- Maintain a link to [www.thinkblumaine.org](http://www.thinkblumaine.org) on municipal website;
- Participate in a statewide media campaign to include 12 months of television advertisements and 12 months of online advertisements that direct to [www.thinkblumaine.org](http://www.thinkblumaine.org); and
- Promote their approved public event

**Activities Completed During Permit Year 2:** The activities implemented as part of the revised Statewide Awareness Plan are included in Appendix C. The City also continued to provide Think Blue Maine links on its website and in municipal buildings.

### *BMP 1.2 – Update and Implement a Public Stormwater Awareness Plan*

***Party Responsible for Completion:*** City Engineer

***Party Responsible for Development:*** ISWG Education Coordinator

**Measurable Goal 1.2.1** – By December 2, 2013 submit a Stormwater Awareness Plan to raise awareness of stormwater issues such as the path stormwater runoff takes, sources of stormwater pollution and the impact that polluted stormwater runoff has in the community(ies). The plan will identify:

- a) Target audience
- b) Outreach tool(s) to be used
- c) Message
- d) Distribution system
- e) Time line and implementation schedule
- f) Person(s) responsible for implementation
- g) Impact evaluation protocol
- h) Plan modification protocol (this must include DEP approval of significant plan modifications)
- i) Goals (e.g., the targeted level of change sought as a result of the education and outreach effort; specific measurable goals for plan implementation)

**Measurable Goal 1.2.2** – As of February 1, 2014 the Stormwater Awareness Plan is considered approved and implementation of the Stormwater Awareness Plan will begin within one week of approval unless the DEP responds in writing or verbally otherwise. The schedule for raising awareness of stormwater will be included as part of the Stormwater Awareness Plan.

**Activities Completed During Permit Year 2:** The activities implemented as part of the revised Statewide Awareness Plan are included in Appendix C. The City also continued to provide Think Blue Maine links on its website and in municipal buildings. Additionally, the City regularly included stormwater related information on its Sustainable Westbrook Facebook page which currently has 220 “Likes” and within the Waste Not sustainability e-newsletter which goes out approximately 9 times each year to a mailing list 539 municipal and school employees and residents.

### **BMP 1.3 – Develop and Implement Permit Awareness Plan**

***Party Responsible for Completion:*** City Engineer

***Party Responsible for Development:*** ISWG Education Coordinator

**Measurable Goal 1.3.1** – By January 6, 2014 submit a Permit Awareness Plan to raise awareness of stormwater issues including MS4 permit requirements from municipal employees, elected officials and volunteers within municipal government. The plan will identify:

- a) Target audience
- b) Outreach tool(s) to be used
- c) Message
- d) Distribution system
- e) Time line and implementation schedule
- f) Person(s) responsible for implementation
- g) Impact evaluation protocol
- h) Plan modification protocol (this must include DEP approval of significant plan modifications)
- i) Goals (e.g., the targeted level of change sought as a result of the education and outreach effort; specific measurable goals for plan implementation)



**Measurable Goal 1.3.2** – As of March 1, 2014 the Permit Awareness Plan is considered approved and implementation of the Permit Awareness Plan will begin within one week of approval unless the DEP responds in writing or verbally otherwise. The schedule for raising awareness of the permit will be included as part of the Permit Awareness Plan.

**Activities Completed During Permit Year 2:** The activities implemented as part of the revised Statewide Awareness Plan are included in Appendix C. The City also continued to provide Think Blue Maine links on its website and in municipal buildings.

#### **BMP 1.4 - Continue Targeted BMP Adoption Efforts from Previous MS4 Permit Cycle**

***Party Responsible for Completion:*** City Engineer

***Party Responsible for Development:*** ISWG Education Coordinator

**Measurable Goal 1.4.1** – In Permit Year 2, the ISWG and the City of Westbrook will continue BMP adoption activities carried out in Permit Year 5 of the previous BMP Adoption Plan. Activities include:

- Providing a minimum of six adult education classes throughout the ISWG region per year;
- Work with a minimum of 21 retail locations to provide healthy lawn care education to consumers;
- Maintain the YardScaping website hosted on CCSWCD's website; and
- Provide information to targeted neighborhoods via direct mail, neighborhood canvassing, socials or other means

**Activities Completed During Permit Year 2:** The activities implemented as part of the revised Statewide Awareness Plan are included in Appendix C. The City also continued to provide Think Blue Maine links on its website and in municipal buildings.

#### **BMP 1.5 – Update and Implement BMP Adoption Plan**

***Party Responsible for Completion:*** City Engineer

***Party Responsible for Development:*** ISWG Education Coordinator

**Measurable Goal 1.5.1** – By November 1, 2013, submit a plan to encourage targeted audience to adopt or practice specific BMPs that will reduce stormwater pollution. The Plan will include:

- a) BMP
- b) Target audience
- c) Outreach tool(s) to be used
- d) Message
- e) Distribution system
- f) Time line
- g) Person(s) responsible for implementation
- h) Impact evaluation protocol
- i) Plan modification protocol
- j) Targeted level of change as a result of the outreach effort (specific measurable goals for plan implementation)

**Measurable Goal 1.5.2** – As of January 15, 2014 the BMP Adoption Plan is considered approved and implementation of the Plan will begin unless DEP responds in writing or verbally otherwise. An overall schedule for BMP adoption will be included in the BMP Adoption Plan.

**Activities Completed During Permit Year 2:** The activities implemented as part of the revised Statewide Awareness Plan are included in Appendix C. The City also continued to provide Think Blue Maine links on its website and in municipal buildings.

### **BMP 1.6 – Develop and Implement Targeted Outreach in Priority Watershed Plan**

**Party Responsible for Completion:** City Engineer

**Party Responsible for Development:** ISWG Education Coordinator

**Measurable Goal 1.6.1** – By July 1, 2014 submit a draft plan on how to meet either permit requirement H.1.a.iv.1 or H.1.a.iv.2. The plan will identify:

- a) Specific stormwater activity or pollutant to be addressed
- b) Target audience
- c) Outreach tool(s) to be used
- d) Message and the BMPs to be encouraged
- e) Time line and implementation schedule
- f) Person(s) responsible for implementation
- g) Goal of the outreach effort
- h) Impact evaluation protocol

**Measurable Goal 1.6.2** – By November 1, 2014 submit a final plan. Unless DEP responds in writing or verbally otherwise, then as of January 5, 2015 the Targeted Outreach in Priority Watershed Plan is considered approved and implementation will begin. An overall schedule for targeted outreach in the priority watershed will be included as part of the Targeted Outreach in Priority Watershed Plan.

**Activities Completed During Permit Year 2:** The City has continued its collaboration with the ISWG to develop a targeted education and outreach plan to address a common regional or statewide stormwater pollutant.

### **BMP 1.7 – School Outreach**

**Party Responsible for Completion:** City Engineer

**Party Responsible for Development:** ISWG Education Coordinator

**Measurable Goal 1.7.1** – In Permit Year 1, continue the incorporation and implementation of the “It’s All Connected” school curriculum in elementary and/or middle schools.

**Measurable Goal 1.7.2** – In Permit Years 2 - 5, as funding permits, continue the incorporation and

implementation of “It’s All Connected” school curriculum in elementary and/or middle schools.

**Activities Completed During Permit Year 2:** The City collaborated with the ISWG to provide educational outreach in Westbrook schools. The details of these activities are included in Appendix C. Additionally, the City participated an education event in partnership with the ISWG, local engineers, the Portland Water District and Westbrook High School to provide a day long lesson focused on the Presumpscot River. All high school juniors participated in this lesson which covered topics including river ecology, stormwater infrastructure, water quality and the MS4 program.

## ***MCM 2 - Public Involvement and Participation***

Westbrook will fulfill the requirements for Public Involvement and Participation through participation in the Interlocal Stormwater Working Group (ISWG) and the City’s provision of funding to the ISWG for Public Involvement and Participation services, or through directly fulfilling the requirements, as described in this section of the plan. For specific permit requirements, refer to Part IV(H)(2) of the General Permit.

### **MCM Goal**

To involve the public in both the planning and implementation process of improving stormwater quality and reducing quantity via the stormwater program.

### ***BMP 2.1 – Public Notice Requirement***

***Party Responsible for Completion:*** City Engineer

***Party Responsible for Development:*** ISWG Stormwater Program Coordinator

**Measurable Goal 2.1.1** – ISWG and/or its members will follow state and local Public Notice requirements for both ISWG and individual Stormwater Management Plans. Copies of the plan will be made available on the Maine DEP and City of Westbrook websites.

**Measurable Goal 2.1.2** – ISWG and/or its members will follow state and local requirements when involving stakeholders in the implementation of Small MS4 General Permit.

**Activities Completed During Permit Year 2:** Public notice requirements including documentation of meetings and attendance, where applicable, are included in Appendix D.

### ***BMP 2.2 – Host Public Events***

***Party Responsible for Completion:*** City Engineer

***Party Responsible for Development:*** ISWG Stormwater Program Coordinator

Westbrook Stormwater Program Annual Report: Permit Year 2

Measurable Goal 2.2.1 – ISWG and/or City of Westbrook will annually host/conduct or participate in at least one public event such as storm drain stenciling, stream clean-up, household hazardous waste collection day, volunteer monitoring, neighborhood education events, conservation commission outreach program, Urban Impaired Stream outreach education or an Adopt-A-Storm-Drain or Adopt-A-Stream program. The target audience will be the adult residents living in the Urbanized Area of the City of Westbrook. The ISWG and/or City of Westbrook will consult with DEP to ensure the event will satisfy requirements. In particular, the City of Westbrook will continue hosting an annual household hazardous waste day to minimize the potential for illegal dumping in Mill Brook.

**Activities Completed During Permit Year 2:** – A description of the event including estimated attendance/participation and an impact evaluation to assess effectiveness of the methods used to plan and host the event is included in Appendix E.

September 27, 2014 – Household Hazardous Waste Day

The City continued to hold an annual Household Hazardous Waste Day for Westbrook residents. The event was held at the Pine Tree Waste facility at 594 County Road in Westbrook allowing residents to become familiar with the relatively new facility and the services it provides. Materials collected included but were not limited to oil based paints and stains, petroleum products including fuels, fluorescent tubes, batteries and pesticides.

April 25, 2015 – Urban Runoff and Green Neighbor family Fest

The City continued to support the ISWG in the annual Urban Runoff & Green Neighbor Family Fest. Two City staff members volunteered at the event assisting with race and festival coordination as well as event clean up. Free entry to the race was offered to all City staff and family members.

May 9, 2015 – Community Cleanup Day

The City hosted a Community Cleanup Day with the support of the Westbrook Downtown Coalition. The event was based in Riverbank Park and cleanup sites were focused in areas near the river. Informational materials on stormwater pollution and water quality were provided to participants. Though attendance at this year's event was limited it represents the reinstatement of a formerly successful program.

May, 2015 – “There's No Need to Feed” Project with Girl Scout Troop 455

The City collaborated with local Girl Scout Troop 455 on a community service project that began as a Scout request for information about what to feed ducks in City parks and cemeteries and the potential installation of a feed dispenser. The City was able to provide the Scouts with information regarding duck health and water quality and the goal of the project was changed to educating the

public about the dangers of feeding ducks. The project culminated with the Scouts creating an informational brochure and hosting an information table at Westbrook Together Days. The brochure is available upon request.

### ***MCM 3 - Illicit Discharge Detection and Elimination***

The City of Westbrook will continue developing, implementing and enforcing a program to detect and eliminate illicit discharges and non-stormwater discharges within the MS4 area as defined in 06-096 CMR 521(9)(b)(2) except or excluding allowable non-stormwater discharges listed in Part IV(H)(3)(c) of the MS4 General Permit.

#### **MCM Goals**

1. Continue developing and maintaining current watershed-based storm sewer system infrastructure
2. Implement and enforce a non-stormwater discharge ordinance that includes coordination with the Portland Water District (PWD) to determine if water line and hydrant flushing are significant contributors of pollutants to the City's MS4 system
3. Develop and implement a prioritized dry weather outfall inspection plan
4. Develop and implement a prioritized dry weather ditch system inspection plan
5. Develop a list of septic systems that are 20 years old or older and may discharge to the City's MS4 system and implement a strategy to detect illicit discharges from any of these systems that may be failing.

For specific permit requirements and suggestions, refer to DEP's General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems Part IV(H)(3).

### ***BMP 3.1 – Continue to develop and maintain an Updated Watershed Based Storm Sewer System Infrastructure Map***

#### ***Responsible Party – City Engineer***

**Measurable Goal 3.1.1** – During Permit Years 1 – 5, update and maintain the storm sewer system map by collecting and/or updating data as additional or new information is available. Updates are made to the Westbrook map on a quarterly basis.

**Activities Completed During Permit Year 2:** – The City of Westbrook storm sewer system map is updated quarterly by our GIS consultant. The City's mapped public storm sewer system now includes 2,166 catch basins, 640 drain manholes, 5 outlet controls and 73 miles of gravity

stormwater pipes of which we estimate 47.5 miles are City owned. The City GIS consultant is working toward full ownership coding of pipes which will provide clearer information on the amount of publically owned pipe.

### BMP 3.2 – Continue to Enforce the Non-Stormwater Discharge Ordinance

*Responsible Parties – City Engineer/Code Enforcement Officer*

**Measurable Goal 3.2.1** – During Permit year 1 – 5, continue to implement, to the extent allowable under State or local law, the Illicit Discharge Ordinance, adopted July 6, 2009.

**Activities Completed During Permit Year 2:** The City continued to enforce the Non-Stormwater Discharge Ordinance adopted July 6, 2009. The documentation and reporting of illicit discharges was determined to be a deficiency in the City stormwater program during the April 8, 2015 DEP audit. While stormwater program staff had been reporting spills made know to them to the DEP, not all spills were reported to the stormwater program staff. In addition, spill forms were not consistently being filled out and stored. After the audit, this issue received significant focus and crew members are more comfortable reporting issues and the organization and consistency of record keeping has improved. We have records of responding to 7 incidents in Permit Year 2. See Table 1 below.

Table 1: IDDE Incidents in PY 2

City of Westbrook - Illicit Discharge Permit Year 2								
Date	Location	Description	Clean Up Method	DEP Alerted	Disposal Location	Follow Up Required	Notes	
11/13/2014	PS Shop - inside vehicle	<4 gallons gas spilled	Boom Technologies	Yes	Boom Technologies	Talk to crew about fuel storage	Spill occurred approx 2 weeks before. Talked to the crew about reporting	
11/25/2014	PS Shop	Blown hydraulic hose	In house	Yes	CPRC			
12/4/2014	PS Shop	Leaking hydraulic hose	In house	Yes	CPRC			
3/14/2015	Bridgton/Brook	Antifreeze from auto accident	In house	Yes	In house			
4/22/2015	Vivian/Central Street	Blown hydraulic hose	In house	Yes	CPRC		Excavator had to be left on site	
4/25/2015	Main Street/Rt 25	Blown hydraulic hose	In house	Yes	CPRC			

### BMP 3.3 – Continue Dry Weather Outfall Inspection Program

*Responsible Party – City Engineer*

Measurable Goal 3.3.1 – During the previous permit cycle, Westbrook designated Nason’s Brook as our priority watershed however we have reevaluated and reassigned that designation to Mill Brook. In Permit Years 1 – 5, dry weather outfall inspection of the priority watershed will be conducted.

Measurable Goal 3.3.2 – In Permit Year 1, the City will review the standard operating procedure (SOP) for the dry weather outfall inspection program and revise it as necessary. The City will have the reviewed SOP available no later than September 19, 2014.

**Activities Completed During Permit Year 2:** The City continues to work with a GIS consultant to conduct the dry weather outfall inspections. During Permit Year 2 no dry weather outfall inspections were conducted as we worked to develop the same cloud based application used for ditch inspections and catch basin cleanings for use with dry weather outfall inspections. We plan to return to annual outfall inspections in the spring of 2016 unless the DEP requests inspections occur before that time.

#### **BMP 3.4 – Continue Open Ditch Illicit Discharge Program**

***Responsible Party – City Engineer***

Measurable goal 3.4.1 – In Permit Year 1, the City will finalize the standard operating procedure (SOP) for detecting illicit discharges within the ditch system of the highest priority watershed - Mill Brook. The City will have the SOP available no later than September 19, 2014.

Measurable goal 3.4.2 – In Permit Years 2 – 5, the City will continue implementing the standard operating procedure for the inspection program to detect and illicit discharges in the open ditch system of the highest priority watershed - Mill Brook.

**Activities Completed During Permit Year 2:** The City GIS consultant inspected all of the open ditches in the Mill Brook watershed using the same application as the dry weather outfall inspections. There were limited signs of illicit discharges observed during the inspections. A single ditch presented with a potentially oily sheen which was not evident upon follow up. Increased vegetation and vegetative mats were apparent in fewer than 5 ditches. Ditch inspection data is not included in this report to due to size concerns but is readily available.

#### **BMP 3.5 – Septic System Evaluation**

***Responsible Party – City Engineer***

Measurable Goal 3.5.1 – By the end of Permit Year 3, June 30, 2016, the City will develop a list of septic systems in their highest priority watershed (Mill Brook) that are  $\geq 20$  years old and which may discharge into the MS4 if the system fails.

Measurable Goal 3.5.2 – By the end of Permit Year 4, June 30, 2017, the City will implement a drive by evaluation and documentation program of the aging septic systems identified in Measurable Goal 3.5.1. The program will include mechanisms to address any discharges from failed septic systems.

**Activities Completed During Permit Year 2:** No action required at this point.

### **BMP 3.6 – Coordinate with the Portland Water District to Determine if Water Line or Hydrant Practices Are a Significant Contributor of Pollutants to the MS4**

***Responsible Party – City Engineer***

Measurable Goal 3.6.1 – In Permit Year 1, coordinate with the Portland Water District to evaluate whether or not water line or hydrant flushing from potable water sources is a significant contributor of pollutants to the MS4. Evaluation will include the following action:

- Provide the Portland Water District with a location map showing the extent of the municipal urbanized area, and the highest priority watershed(s).
- Gather information from the Portland Water District, specific to the urbanized area and priority watershed(s), including the number and location of hydrants and details on water line or hydrant flushing that outlines procedures, including how often flushing occurs, typical flow rates and duration, where the water is conveyed, what the target or actual chlorine concentrations are, and what best practices are employed to prevent erosion and address potential pollutants.

Measurable Goal 3.6.2 – By no later than December 30, 2014, unless otherwise approved by the Department, using available GIS or other municipal mapping information, the location of hydrants will be added to the storm sewer system infrastructure map to aid in the evaluation; the Westbrook will work with the water utility to prioritize the hydrants or water lines that have the potential to cause exceedances of the ambient water quality criterion for chlorine when discharged through the MS4. The Westbrook will request a water quality progress report that documents what best management practices are being implemented for flushing activity at the prioritized hydrants as well as the Portland Water District's testing results of the total residual chlorine for any such discharges.



Measurable Goal 3.6.3 – Permit Years 3 – 5, the municipality will request an annual water quality progress report that documents what best management practices are being implemented for flushing activity at the prioritized hydrants as well as the Portland Water District’s testing results of the total residual chlorine for any such discharges.

Measurable Goal 3.6.4 – If it is determined by the end of Permit Year 3, June 31, 2016, that water line or hydrant flushing is a significant contributor of pollutants to the MS4, and the Portland Water District has demonstrated that it will not voluntarily implement BMPs in order to reach ambient water quality criteria for chlorine, the Westbrook will, as soon as practicable or by no later than the end of Permit Year 4, update their IDDE ordinance to allow enforcement of discharges that cause exceedances of water quality criteria.

**Activities Completed During Permit Year 2:** A location map showing the Urbanized Area and highest priority watersheds has been provided to the Portland Water District and representatives of the Westbrook Stormwater Program have participated in meetings with the Water District and other MS4 communities to develop an SOP for hydrant flushing to minimize the impact to water quality. The City is currently developing a Risk Model for hydrant flushing based on hydrant and stormwater infrastructure locations.

#### ***MCM 4 - Construction Site Stormwater Runoff Control***

##### **MCM Goal**

Continue to implement and enforce a program to reduce pollutants in any stormwater runoff to the regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre.

The City will rely on the Maine Construction General Permit (MCGP) or Chapter 500 to meet the requirements of the General Permit. For specific permit requirements and suggestions, refer to MDEP’s General Permit for Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems Part IV(H)(4).

***BMP 4.1 – Continue notification to construction site developers and operators of the requirements for registration under the Maine Construction General Permit of Chapter 500, Stormwater Management for the discharge of stormwater associated with construction activities.***

***Responsible Party – City Engineer***

Measurable goal 4.1.1 – Continue notifying developers and contractors through the modified building permit and Planning Board review process, and through meetings with Code Enforcement and Planning staff. The documents provide notification to applicants of the requirements for registration under the Maine Construction General Permit or Chapter 500 Stormwater Management for the Discharge of Stormwater Associated with Construction Activities.

**Activities Completed During Permit Year 2:** The City building permit application references the use of the Maine Construction General Permit. Copies of the Maine Construction General Permit are available for developers and contractors upon request.

**BMP 4.2 – Continue documenting every construction activity that disturbs one or more acres within the Urbanized Area.**

*Responsible Parties – City Engineer/City Planner*

Measurable Goal 4.2.1 – During the previous permit cycle, the public works director developed a spreadsheet to document the construction activities that disturb more than one acre of land in the Urbanized Area. By June 30 each year the spreadsheet will be updated to include the construction projects in the Urbanized Area that disturbed more than one acres of land.

**Activities Completed During Permit Year 2:** A copy of the spreadsheet tracking activities that disturb greater than one acre of land is included in Appendix G.

**BMP 4.3 – Continue implementing the construction site inspection program.**

***Responsible Party – City Engineer***

Measurable Goal 4.3.1 – During the previous permit cycle, the City developed a procedure for construction site inspections by either a municipal official or a contracted third party to meet the terms and conditions of the MS4 General Permit. The program includes three construction inspections for sediment and erosion control issues in those sites that are in the highest priority watershed (Mill Brook) and two inspections in all other portions of the Urbanized Area. One of the inspections occurs at the end of construction to document that final stabilization of the site has been completed. The City will continue to implement this program and by June 30 each year will document this information in the Construction Inspection Tracking spreadsheet that is also used to document BMP 4.2.

**Activities Completed During Permit Year 2:** The City has established a spreadsheet tracking activities that disturb greater than one acre of land is included in Appendix G. The dates of inspections during Permit Year 2 are included in this spreadsheet. Additionally, City has also created and filled a new position in Code Enforcement to assist in the inspection and tracking of these sites.

#### **BMP 4.4 – Enhanced Certification in Mill Brook**

***Responsible Party – City Engineer***

**Measurable Goal 4.4.1** – Whenever the City hires a contractor to do work in Mill Brook, they will hire a contractor certified by the State in sediment and erosion control.

**Activities Completed During Permit Year 2:** The City hired no contractors to do work in Mill Brook during Permit year 2.

#### ***MCM 5 - Post-Construction Stormwater Management***

##### **MCM Goal**

- 1) Continue to implement to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the City's MS4
- 2) Continue to implement an ordinance or similar measure to ensure adequate long-term operation and maintenance of post construction BMPs
- 3) Ensure post construction BMPs are functioning as intended
- 4) Document and report annually to the MDEP all applicable post-construction information

For specific permit requirements and suggestions, refer to Part IV(H)(5) of the General Permit

#### **BMP 5.1 – Continue to Enforce the Post-Construction Stormwater Management Ordinance**

***Responsible Parties – City Engineer/Code Enforcement Officer***

**Measurable Goal 5.1.1** – In Permit Years 1 – 5, continue to implement the Post Construction Discharge Ordinance (effective April 5, 2010) which requires that any site which disturbs more than one acre certify to the City annually, by March 1, that they have inspected and maintained their stormwater BMPs. This ordinance is Article III of Chapter 37 Post-Construction Stormwater Management. The City will continue to enforce this ordinance.

**Activities Completed During Permit Year 2:** The City has established a spreadsheet tracking activities that disturb greater than one acre of land is included in Appendix G. Having recently created in and filled a position to assist in the tracking and inspection of these sites, we anticipate being in compliance with this requirement beginning in Permit year 3.

#### **BMP 5.2 – Track Post Construction Sites to Ensure Proper Reporting and Compliance with the Ordinance.**

*Responsible Parties – City Engineer/Code Enforcement Officer*

**Measurable Goal 5.2.1** – In Permit Years 1 – 5, continue to track sites that trigger the Post Construction Ordinance and to document the following elements which are required to be reported to the Maine DEP:

- The cumulative number of sites that have post construction BMPs discharging into the City of Westbrook’s MS4
- A summary of the number of sites that have post construction BMPs discharging into the City of Westbrook’s MS4 that were reported to the municipality
- The number of sites with documented functioning post construction BMPs
- The number of sites that required routine maintenance or remedial action to ensure that the post construction BMP is functioning as intended

The City will complete the spreadsheet by June 30 each year.

**Activities Completed During Permit Year 2:** The City has established a spreadsheet tracking activities that disturb greater than one acre of land is included in Appendix G. Having recently created in and filled a position to assist in the tracking and inspection of these sites, we anticipate being in compliance with this requirement beginning in Permit year 3.

#### **BMP 5.3 – Develop and implement a procedure for notifying site developers to consider incorporating low impact development (LID) techniques.**

*Responsible Parties – City Engineer/City Planner*

**Measurable Goal 5.3.1** – By the end of Permit Year 1, the City will establish a standard operating procedure (SOP) for notifying developers to consider LID techniques. The City will have the SOP available no later than September 19, 2014.

Measurable Goal 5.3.2 – During Permit Years 2 – 5, implement the SOP for notifying developers to consider LID techniques.

Measurable Goal 5.3.3 – During Permit Years 2 – 5, evaluate the methods used to encourage developers to use LID techniques.

**Activities Completed During Permit Year 2:** Currently the City does not have a written SOP for notification of developers to consider LID techniques because all developers meet with our City Engineer who is a part of the stormwater program and LID possibilities are discussed during those meetings. LID is also mentioned in on our building permit form. We are currently researching the benefits of a more formal approach to LID notification.

### ***MCM 6 - Pollution Prevention/Good Housekeeping for Municipal Operations***

This program has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

#### **MCM Goals**

- Maintain an updated inventory of all municipal operations conducted in, on, or associated with facilities, buildings, cemeteries, parks and open space owned or operated by regulated MS4s that have the potential to cause or contribute to stormwater or surface water pollution.
- Continue to implement written operation and maintenance procedures for the facilities in the inventory to ensure long term operation of structural and non-structural controls that reduce stormwater pollution of the maximum extent practicable.
- Train employees on ways to prevent and reduce stormwater pollution from municipal operations and facilities.
- Continue to implement a program to sweep all publically accepted

For specific permit requirements and suggestions, refer to Part IV(h)(6) of the General Permit.

### ***BMP 6.1 – Operations at Municipally Owned Grounds and Facilities***

*Responsible Parties – City Engineer/Public Services Director*

Measurable Goal 6.1.1 – During Permit Year 1, review the inventory the City created of all municipal operations conducted in, on, or associated with facilities, buildings, cemeteries, parks and open space that have the potential to cause or contribute to stormwater or surface water pollution.

Measurable Goal 6.1.2 – During Permit Year 2, compare the inventory of City operations to the existing standard operating procedures (SOPs) to ensure that all municipal operations have an appropriate SOP in place. Develop and additional SOPs necessary to encompass municipal operations.

Measurable Goal 6.1.3 – During Permit Years 1 -5, continue to implement the Standard Operating Procedures (SOPs) listed at <http://www.thinkbluemaine.org/docs/municipal/sopv2.pdf>. The City will continue to implement these SOPs at the inventoried facilities in City. Where the Public Services Director is not responsible for implementing the SOPs (I.E., at the police and fire departments), those facilities will maintain copies of their SOPs onsite.

**Activities Completed During Permit Year 2:** The City has developed an inventory of procedures that have the potential to cause or contribute to stormwater or surface water pollution and has implemented the appropriate Think Blue Maine SOPs to reduce the potential for stormwater and surface water pollution. The inventory is reviewed approximately every 6 months as the City shifts from summer to winter operations and vice versa. If it is determined that additional SOPs are required, that are added at this time. City SOPs are available upon request.

## **BMP 6.2 – Municipal Employee Training**

*Responsible Parties – City Engineer/Public Services Director*

Measurable Goal 6.2.1 – By the end of Permit Year 2, identify the training needs and materials.

Measurable Goal 6.2.2 – In Permit Years 3-5, implement a municipal employee training program to reduce stormwater pollution potential from municipal operations. For suggesting topics to be covered by the training program, refer to Part IV(H)(6.a.ii) of the General Permit.

**Activities Completed During Permit Year 2:** City staff participated in several stormwater trainings during Permit Year 2. The City partnered with the ISWG to provide stormwater management training to Public Services, Sewer Department and Public Safety fleet maintenance staff in December, 2014. The City hosted an internal training for this same group in April, 2014. This training is also given to all new Public Services hires. Additionally, several members of the Public

Services department attended the stormwater pollution and prevention training presented by the ISWG on May 14<sup>th</sup> at the South Portland Community Center. Slides and attendance rosters are provided for all trainings are available upon request.

The City is currently searching for stormwater training material specifically tailored to the needs of first responders to be provided to Public Safety staff.

### **BMP 6.3 – Street Sweeping**

#### ***Responsible Party – Public Works Director***

Measurable Goal 6.3.1 – In Permit Years 1 – 5, continue to sweep all publically accepted paved streets and publically owned paved parking lots at least once as soon as possible after snowmelt. Additional street sweeping will be conducted in the Long Creek.

**Activities Completed During Permit Year 2:** The City has continued its ongoing and aggressive sweeping program for municipally owned or operated streets, parking areas and sidewalks. In addition to sweeping in the fall to remove leaves from streets, the City sweeps routinely during the winter to prevent sand accumulation on roads as well as in the spring after snow melt and as needed during the summer. Due to year round sweeping activities, sweepings totals are not included in this report. They are available upon request.

### **BMP 6.4 – Cleaning of stormwater structures including catch basins**

#### ***Responsible Party – Public Works Director***

Measurable Goal 6.4.1 – In Permit years 1 – 5, the City will continue to inspect all catch basins and clean catch basins and other stormwater structures that accumulate more than 3 inches of sediment and dispose of the removed sediment according to state law. The City will clean catch basins more frequently if inspections indicate excessive accumulation of sediment. Excessive accumulation is greater than or equal to 50 percent filled.

**Activities Completed During Permit Year 2:** The City continued its catch basin program established in previous permit cycles. We accomplished record keeping in the field using paper forms that data from which was later input into the GIS program by a staff member. We collected a range of information including structure size and condition, debris found and accessibility. In Permit Year 2, in 200 staff hours we collected 285 tons of material. Due to the amount of data, the csv file showing all catch basin cleanings is not included in this report. It is available upon request.

## **BMP 6.5 – Maintenance and upgrading of stormwater conveyances and outfalls**

***Responsible Party – Public Works Director***

**Measurable Goal 6.5.1** – During Permit Years 1 – 5, the City will continue to maintain and upgrade the stormwater conveyance systems based on the results of catch basin, outfall and ditch inspections in accordance with the urgency of the repair.

**Activities Completed During Permit Year 2:** Catch basins are inspected as part of the City catch basin cleaning program and notes are made regarding maintenance and upgrades that need to be conducted. When the data from the catch basin cleaning form was input into the GIS program, a staff member was able to mark any catch basins requiring follow up. Outfalls are typically inspected as part of the annual program conducted in Mill Brook and Long Creek. The City began conducting ditch inspections in the spring of 2015.

## **BMP 6.6 – Stormwater Pollution Prevention Plans (SWPPPs)**

***Responsible Parties – City Engineer/Public Works Director***

**Measurable Goal 6.6.1** – During Permit Year 1, the City will review and update the SWPPP for the Public Services Facility to conform to the conditions and requirements of the Maine Multi-Sector General Permit for Stormwater Discharge Associated with Industrial Activity published April 26, 2011. During subsequent permit years, the City will implement the SWPPP, including conducting quarterly visual monitoring and quarterly housekeeping inspections.

**Measurable Goal 6.6.2** – Although the Public Services garage does not exceed the 1,320 gallon threshold requiring an Oil Spill Prevention Control and Countermeasure Plan, the garage holds a Site Location of Development requiring a Spill Plan. The City will update the Spill Plan during Permit Year 1.

**Activities Completed During Permit Year 2:** As part of an April 8, 2015 DEP audit of the City stormwater program, the City conducted a thorough review and update of municipal SOPs, SWPPPs, SPCC plans and O&M documents. The DEP was able to offer guidance on changes and improvements for these documents. Public Services, Sewer department and Public Safety fleet maintenance staff receive SWPPP training twice per year and SWPPP training is included in the introductory training for new employees. Due to the number and size of these documents they are not attached but are available upon request.

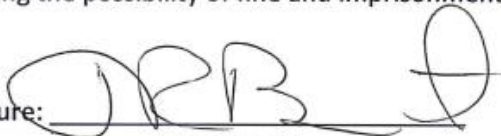


## Section 4: General Requirements

### 4.1 Certification

The General Permit requires that this Plan be certified by either a principal executive officer or ranking elected official. This section provides the necessary 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 gathered and evaluated 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:  Date: 9-15-15  
Jerre Bryant  
Title: City Administrator

### 4.2 Plan Availability

This Plan will be retained by the City's principal executive officer for the duration of the permit period and copies will be available and retained by municipal officials or employees responsible for implementation of the Plan. The city will make a copy of the Plan available to the following immediately upon request:

- A. Commissioner of the Department;
- B. In the case of a regulated small MS4 adjacent to or interconnected with the City's storm sewer system, to the operator of that regulated small MS4; and
- C. In the case of a regulated small MS4 stormwater discharge to a water supply watershed, to the public water supply company.

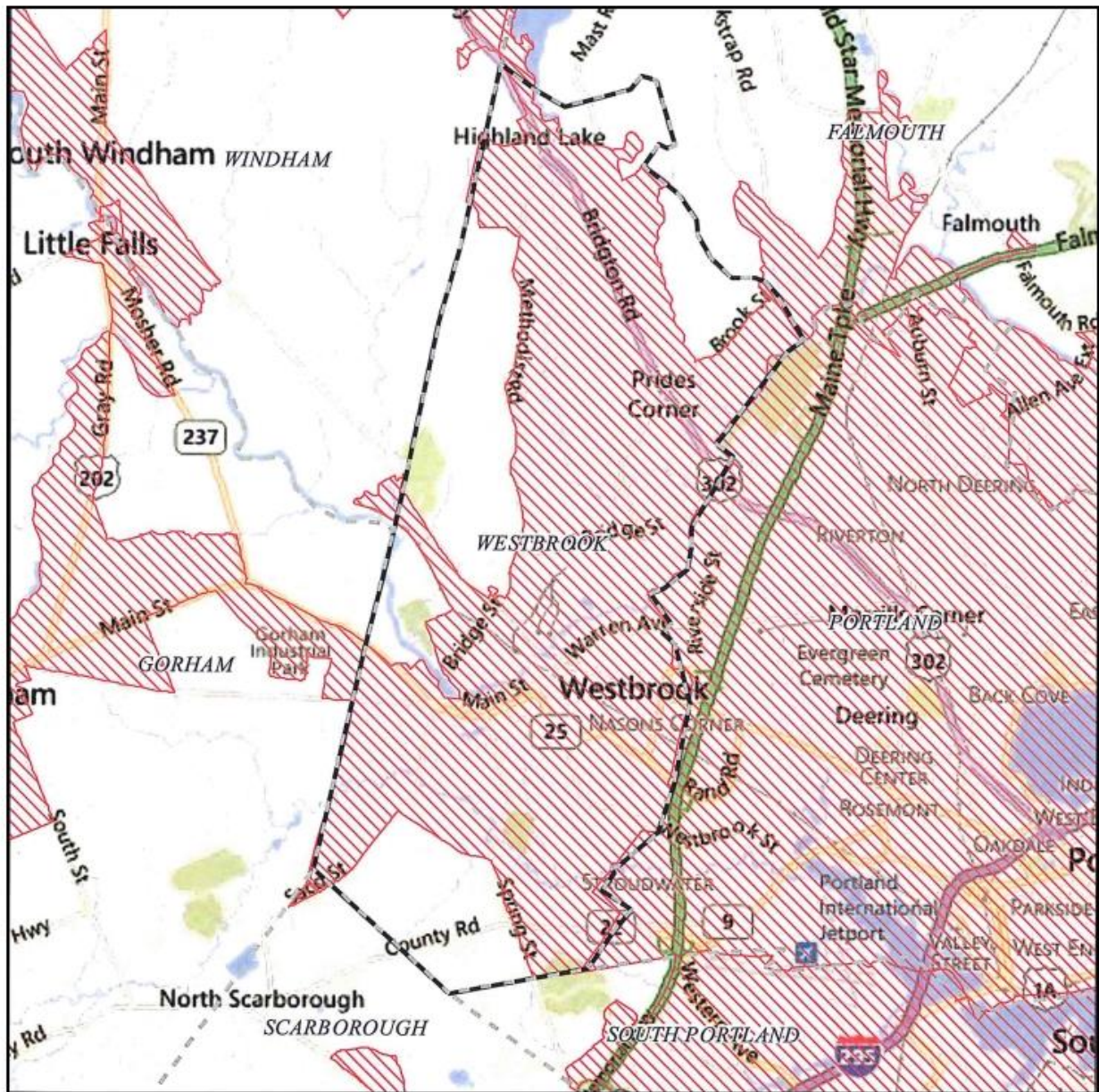
Figure 2.1 – City of Westbrook, Location Map



Figure 2.2 – City of Westbrook, Urbanized Area


Westbrook Stormwater Program Annual Report: Permit Year 2





**NPDES Phase II Stormwater Program  
Automatically Designated MS4 Areas**

**Westbrook ME**

 Regulated Area (2010 Urbanized Area)



Town Population: **17417**  
Regulated Population: **16649**  
(Populations estimated from 2010 Census)



Urbanized Areas: US Census Bureau (2010)  
Town Boundaries: NAVTEQ  
Base map © 2009 Microsoft Corporation  
and its data suppliers

US EPA Region 1 GIS Center Map #8538, 6/26/2012

# APPENDIX A

---

## Notice of Intent

# **NOTICE OF INTENT TO COMPLY WITH MAINE GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER FROM MUNICIPAL SEPARATE STORM SEWER SYSTEMS**

PLEASE TYPE OR PRINT IN BLACK INK ONLY

Municipality:	City of Westbrook	Mailing Address:	2 York Street		
Town/City:	Westbrook	State:	ME	Zip Code:	04092
Name and title of chief elected official or principal executive officer:	Mayor Collen Hilton	Mailing Address:	Same		
Town/City:		State:		Zip Code:	
Name of primary contact person responsible for MS4 stormwater management program:	Lynn Leavitt	Mailing Address:	371 Saco Street		
Town/City:	Westbrook	State:	ME	Zip Code:	04092
Daytime phone: (with area code)	207-591-8135	Email if available:	lleavitt@westbrook.me.us		
Estimate of the area in square miles of the Urbanized Area:	13.7	Permit Number(if applicable):	MER04102		
Name of stream(s), wetland(s) or waterbody(ies) to which the regulated Small MS4 discharges and a list of impaired waterbody(s) which receive stormwater from the Regulated Small MS4 (attach additional sheets as necessary):	Presumpscot River, Stroudwater River, Mill rook, Capisic Brook, Nason's Brook.				
Please note that the UA in Long Creek already has NPDES permit coverage. We are not seeking MS4 coverage for this area.					

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement knowingly made in the submitted information may be punishable as a criminal offense, in accordance with Maine General Statutes.

I certify that this permit registration is on complete and accurate forms as prescribed by the Department without alteration of the text.

I also certify under penalty of law that I have read and understand all requirements of the General Permit. I certify that all requirements for authorization under the general permit are met and that a system is in place to ensure that all terms and conditions of this general permit will continue to be met for all discharges authorized by this general permit for the municipality. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly making false statements.

Signature of chief elected official or principal executive officer:		Date:	10/24/13
---	---	-------	----------

This NOI registration form must be filed with the Department at the following address:  
 Stormwater Coordinator  
 Maine Department of Environmental Protection  
 Bureau of Land & Water Quality  
 17 State House Station  
 Augusta ME 04333-0017

OFFICE USE ONLY	Ck.#	Date	Staff	Staff	After Photos
NOI #	FP		Acc. Date	Def. Date	

DEPLW0916

Maine Department of Environmental Protection

5/29/2008

# APPENDIX B

---

## **Urban Impaired Stream Watersheds**

Westbrook has one identified Urban Impaired Stream watershed, Long Creek, as defined by Appendix B of the General Permit for Small Municipal Separate Storm Sewer Systems issued in July 2013, however, the Urbanized Area in Long Creek already has NPDES permit coverage. The City of Westbrook will continue to work with the Long Creek Watershed Management District to meet the requirements for stormwater controls in this watershed.

## APPENDIX C

---

### **Permits Year 1 Summary of Minimum Control Measures 1 & 2**

See Attached ISWG PDF Document

# APPENDIX D

---

## **Public Notice Requirements**

The City of Westbrook Stormwater Management Plan is posted in the Stormwater Compliance section of the City website. The address is:

<http://www.westbrookmaine.com/city-departments-boards-commissions/engineering-wastewater/wastewater-division/stormwater-compliance>



# APPENDIX E

---

## **Public Event Attendance, Participation and Effectiveness**

See Attached ISWG Document

## APPENDIX F

---

### **Stormwater Outfall Inspections Data**

No outfall inspections in PY2

# APPENDIX G

---

## Chapter 500 Construction Tracking

Westbrook Construction Inspection Tracking Spreadsheet for MS4								
	Inspection Dates							Notes
Knight's Gardens Estates	7/15/2014	7/30/2014	8/22/2014	4/8/2015	5/1/2015			Under 1 acre but in Mill Brook
Cobb Farm Estates	7/30/2014							
Berkshire Way	8/22/2014	8/28/2014	9/15/2014	9/17/2014	9/19/2014	4/8/2015	5/1/2015	
SIGCO	8/7/2014	12/16/2014	4/8/2014	4/15/2015				
Bill Dodge BMW	9/9/2014	4/7/2015						
Willow Drive	7/15/2014	9/16/2014	11/4/2014					Under 1 acre but in Mill Brook
Fairlane 500 Drive	10/3/2014							

<b><u>Construction Projects &gt; 1 Acre</u></b>		
Project Name		
Stroudwater Landing		
Idexx Parking Lot		
Public Services		
Blue Spruce Farm		
Animal Refuge League		
Bill Dodge BMW		
Winslow Green		