



**RIPDES SMALL MS4 ANNUAL REPORT**  
GENERAL INFORMATION PAGE

RIPDES PERMIT #RIR040016 \_\_\_\_\_

REPORTING PERIOD:

☒ **YEAR 3**  
Jan 06-Dec 06

**OPERATOR OF MS4**

Name: <b>CITY OF WOONSOCKET</b>			
Mailing Address: <b>169 MAIN STREET</b>			
City: <b>WOONSOCKET</b>	State: <b>RI</b>	Zip: <b>02895</b>	Phone: <b>(401) 767-9205</b>
Contact Person: <b>MICHAEL DEBROISSE</b>	Title: <b>CONSTRUCTION MANAGER</b>		
Legal status (circle one): PRI - Private <u>PUB - Public</u> BPP - Public/Private    STA - State    FED - Federal			
Other (please specify):			

**OWNER OF MS4 (if different from OPERATOR)**

Name:			
Mailing Address:			
City:	State:	Zip:	Phone: (   )
Contact Person:	Title:		

**CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under the 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, I certify that 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.	
Print Name	<u>SUSAN D. MENARD</u>
Print Title	<u>CITY MAYOR</u>
Signature	<u><i>Susan D. Menard Mayor</i></u> Date <u>3/8/07</u>



# **MINIMUM CONTROL MEASURE #1: PUBLIC EDUCATION AND OUTREACH (Part IV.B.1 General Permit)**

## **SECTION I. MEASURABLE GOALS:**

NOTE: Report must be limited to activities implemented during the third year (calendar year 2006) of the program, which the permittee had listed as a measurable goal in the Storm Water Management Program Plan, or incomplete measurable goals that were required for calendar years 2004 and 2005.

A. REQUIRED MEASURABLE GOALS:								
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	TMDL related activity?	
			YES	NO	ON-TRK		YES	NO
IV.B.1.b.1	1	Implementation of activities undertaken to educate the community about storm water issues.	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.1.b.2	1	Implementation of public education activities to involve the community in the storm water program (indicate if activities were undertaken by permittee or other entities)	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
B. ADDITIONAL MEASURABLE GOALS:								
IV.B.1.b.1 and 5	3	Distribute Storm Water Awareness Package (Neighbor to Neighbor)			<input checked="" type="checkbox"/>	The City plans to rely on the Storm Water Education and Outreach program in coordination with URI to meet these requirements in future years. This measure will be incorporated into BMP ID # 1 in future years.		<input checked="" type="checkbox"/>
IV.B.1.b.1 and 5	4	Distribute storm water flyer to residents.			<input checked="" type="checkbox"/>	The City plans to rely on the Storm Water Education and Outreach program in coordination with URI to meet these requirements in future years. This measure will be incorporated into BMP ID # 1 in future years.		<input checked="" type="checkbox"/>
IV.B.1.b.1 and 5	5	Continue school programs and meet with local school officials annually to identify past activities and upcoming curriculum.			<input checked="" type="checkbox"/>	The City plans to rely on the Storm Water Education and Outreach program in coordination with URI to meet these requirements in future years. This measure will be incorporated into BMP ID # 1 in future years.		<input checked="" type="checkbox"/>

**SECTION II. OVERALL EVALUATION:****GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:**

**Include relevant information to the implementation of each measurable goal, such as, activities, topics addressed, audiences and pollutants targeted. Discussion of activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for choosing the education activity to address the pollutant of concern.**

**(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals.)**

**IV.B.1.b.1**

The City plans to rely on the Storm Water Education and Outreach in cooperation with URI to meet the measurable goals in future years.

The City developed a website ([http://www.ci.woonsocket.ri.us/strm\\_wtr.htm](http://www.ci.woonsocket.ri.us/strm_wtr.htm)). The website describes the general permit requirements, provides the complaint form and electronic submission of complaints, access to the SWMPP and annual reports, links to organizations with storm water quality information, a description of storm water related requirements for building permits, and recommendations for low impact development. The school department continues to incorporate environmental education into the curriculum through the pilot rain garden at Woonsocket High School, summer study courses, environmental science classes, and the clean water club. Students developed demonstration projects to showcase at the Clean Water Festival.

This measure is appropriate and effective. The School Department and Engineering Department are responsible for this measure.

**IV.B.1.b.2**

The City plans to rely on the Storm Water Education and Outreach in cooperation with URI to meet measurable goals in future years.

The City's website includes links to organizations that provide educational materials and public involvement opportunities. The City works with these groups to provide assistance with the events including student cleanups (Clean Water Festival) and the Earth Day Cleanup. The Clean Water Festival involved students from the City who participated in clean up activities and demonstrated projects that they had prepared for the festival.

The City has also developed a letter and brochure to distribute to businesses which describes proper maintenance of structural BMPs. A copy of this brochure is attached.

This measure has been appropriate and effective. The School Department and Engineering Department are responsible for this measure.

Additional Measurable Goals and Activities



## MINIMUM CONTROL MEASURE #2: PUBLIC INVOLVEMENT/PARTICIPATION (Part IV.B.2 General Permit)

### SECTION I. MEASURABLE GOALS:

NOTE: Report must be limited to activities implemented during the third year (calendar year 2006) of the program, which the permittee had listed as a measurable goal in the Storm Water Management Program Plan, or incomplete measurable goals that were required for calendar years 2004 and 2005.

A. REQUIRED MEASURABLE GOALS:								
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	TMDL?	
			YES	NO	ON-TRK		YES	NO
IV.B.2.b.2.ii	1 and 2	Implementation of public involvement activities and description of groups engaged	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.2.b.2.iii	3	Public notice of the draft annual report and provide the opportunity for public comment	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
B. ADDITIONAL MEASURABLE GOALS:								
IV.B.2.b.2.ii	6	Develop storm drain stenciling program in urbanized areas.			<input checked="" type="checkbox"/>	This goal will be incorporated into BMP ID #1 and 2.		<input checked="" type="checkbox"/>
IV.B.2.b.2.ii	7	Continue to sponsor and support cleanup projects.			<input checked="" type="checkbox"/>	This is an ongoing goal that will continue throughout the permit term. This goal will be incorporated into BMP ID #1 and 2.		<input checked="" type="checkbox"/>

## SECTION II. OVERALL EVALUATION:

**A. GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:**

**Include relevant information to the implementation of each measurable goal, such as, activities and audiences engaged. Discussion of activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.**

**(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals.)**

## IV.B.2.b.2.ii

The City has several groups that are active in promoting clean water including the schools and The Blackstone River Coalition. In Year 3, the schools were involved with the Clean Water Festival which included clean up activities and showcased demonstrations developed by students. The City also provided assistance for the Earth Day Cleanup. The City plans to continue the storm drain stenciling program using DPW employees on light duty.

This measure has been appropriate and effective. The School Department and Engineering Department are responsible for this measure.

## IV.B.2.b.2.iii

The City public noticed the annual report in the Woonsocket Call on March 6, 2007. There were no requests to review the annual report. This measure is appropriate and effective in meeting the requirement of the general permit; however, it has not promoted public involvement. The Engineering Department is responsible for this measure.

Additional Measurable Goals and Activities

**SECTION III. Public Notice Information (IV.G.2.h and IV.G.2.i) \*Note: attach copy of public notice**

Date of Public Notice: March 6, 2007	How public was notified: Woonsocket Call
Was public meeting held? NO	
Date:	Where:
Summary of public comments received: None received	
Planned responses or changes to the program: None	



### MINIMUM CONTROL MEASURE #3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (Part IV.B.3 General Permit)

#### SECTION I. MEASURABLE GOALS:

NOTE: Report must be limited to activities implemented during the third year (calendar year 2006) of the program, which the permittee had listed as a measurable goal in the Storm Water Management Program Plan, or incomplete measurable goals that were required for calendar years 2004 and 2005.

Please Indicate:

If Illicit Discharge Detection and Elimination Ordinance was adopted:

☒ YES

☐ NO

If copy of ordinance or relevant portions were submitted with signed letter of City or Town Solicitor:

☒ YES (see attached) ☐ NO

(If you answered NO to the above, please include the required documents with this Annual Report.)

A. REQUIRED MEASURABLE GOALS:								
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	TMDL?	
			YES	NO	ON-TRK		YES	NO
IV.B.3.b.1	1	Development of an outfall map showing the location of all outfalls and names of receiving waters (COMPLETED YEAR 3)	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.3.b.2	2	Tagging outfall pipes if GIS maps are not being developed (OPTIONAL ACTIVITY)		N/A				<input checked="" type="checkbox"/>
IV.B.3.b.3		Recording of additional elements, such as location of catch basins, manholes and pipes, on an on-going basis.	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.3.b.5.vi	9	Inspection of all catch basins and manholes for illicit connections and non-storm water discharges			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
IV.B.3.b.5.vii	10	Progress towards completion of two dry weather surveys, one between Jan 1 <sup>st</sup> and April 30 <sup>th</sup> and one between July 1 <sup>st</sup> and Oct 31 <sup>st</sup> . (Sanitary sewers-bacteria sampling is only required once between July 1 <sup>st</sup> and Oct 31 <sup>st</sup> )			<input checked="" type="checkbox"/>	One survey has been completed and the second survey will be conducted in Year 4.		<input checked="" type="checkbox"/>
IV.B.3.b.7	12	Implementation of coordinating activities with physically interconnected MS4s, including state and federal owned or operated MS4s, when illicit discharges are detected or reported	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.3.b.9	13	Education of public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste as well as allowable non-stormwater discharges found to be significant contributors of pollutants to the MS4.	<input checked="" type="checkbox"/>			The City plans to rely on the Storm Water Education and Outreach program in future years to provide training.		<input checked="" type="checkbox"/>

**ILLICIT DISCHARGE DETECTION AND ELIMINATION cont'd**

B. ADDITIONAL MEASURABLE GOALS:								

**SECTION II. OVERALL EVALUATION:**

A.GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS	
<b>(Include relevant information to the implementation of each measurable goal, such as, activities, and if relevant: topics addressed, audiences and pollutants targeted. Discussion of activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.</b>	
<b>(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals.)</b>	
IV.B.3.b.1	The outfall map was developed during the dry weather survey conducted in Year 3. Outfalls were GPS located for incorporation into the GIS database by Fuss and O'Neill. The outfall investigation identified 224 outfalls, which is 38 fewer outfalls than were originally identified for investigation. This measure was appropriate and effective. The Engineering Department and hired consultant were responsible for this measure.
IV.B.3.b.2 N/A	
IV.B.3.b.3	Additional items have been mapped as part of the GIS database. This measure has been appropriate and effective in developing the City's mapping. The Engineering Department and hired consultant are responsible for this measure.
IV.B.3.b.5.vi	The City inspected and cleaned approximately 407 catch basins in Year 3. The City is on track to inspect all catch basins by Year 4.
IV.B.3.b.5.vii	One dry weather survey was completed in Year 3. The survey was completed by the City's consultant, Fuss and O'Neill. A report is being prepared that will include the results of both dry weather surveys. The report will be submitted to DEM when completed. This measure has been appropriate and effective. The Engineering Department and hired consultant are responsible for this measure.
IV.B.3.b.7	The City has not had to coordinate with interconnected MS4s, but has coordination procedures in place. The City has working relationships with neighboring MS4s; therefore, the procedures are appropriate and expected to be effective; however, the effectiveness has yet to be determined. The Engineering Department is responsible for this measure.



**IV.B.3.b.9**

The City provided training to municipal employees for several storm water related topics including proper BMP maintenance, BMP design, BMP selection/low impact development, flood impact minimization, and road drainage. Copies of the training that municipal employees attended are attached. Training has been appropriate and effective for municipal staff. The DPW is responsible for this measure.

Additional Measurable Goals and Activities

**SECTION III.A Other Reporting Requirements - Illicit Discharge Inspections to Date (Part IV.G.2.m)**

Total Illicit Discharges Identified: 0	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions: None – The City is completing dry weather surveys and will assess dry weather flows once the data has been received.	
Extent to which the MS4 system has been mapped: Mapping is complete	

**SECTION III.B Interconnections (Part IV.G.2.k and IV.G.2.l)**

Interconnection:	Date Found:	Location:	Connectee:	Originating Source:	Planned and Coordinated Efforts and Activities with Connectee:
See attached list					



NOTE: Report must be limited to activities implemented during the third year (calendar year 2006) of the program, which the permittee had listed as a measurable goal in the Storm Water Management Program Plan, or incomplete measurable goals that were required for calendar years 2004 and 2005.

**If Construction Ordinance was adopted:**

☒ YES ☐ NO

**If copy of ordinance or relevant portions were submitted with signed letter of City or Town Solicitor:**

☒ YES (see attached)    ☐ NO

**(If you answered NO to the above, please include the required documents with this Annual Report.)**

[illegible]

**SECTION II. OVERALL EVALUATION:****A. GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:**

**Include relevant information to the implementation of each measurable goal, such as, activities and audiences engaged. Discussion of activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.**

**(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals.)**

IV.B.4.b.2

IV.B.4.b.4

The City reviews all plans submitted regardless of size. The City's consultant, Fuss and O'Neill provides on-call reviews as necessary. In Year 3, Fuss and O'Neill reviewed plans for 5 projects greater than one acre. Letters stating deficiencies, when present, are given to the applicant and permits are not issued until the deficiencies are corrected. The City's review process has been appropriate and effective. The Engineering Department is responsible for reviews and issuing permits. The City tracks reviews and permits using Microsoft Outlook. A copy of the tracking mechanism is attached.

IV.B.4.b.7

The City inspects all sites during several stages of construction. The City is in the process of updating the inspection tracking mechanism. Enforcement of the Soil Erosion and Sediment Control Ordinance is through the Building Inspection Office, but all construction sites are inspected by both the Building Inspection Office and the Engineering Division. The Building Inspection and Engineering Division personnel are all aware of the City's SESC ordinance and cooperate to see that it is enforced. The number of inspections at an individual site varies depending on the magnitude of the job site. The Engineering Division issued approximately 571 permits (including small items such as sidewalk blockages) in Year 3, and all were inspected. Currently, DPW-Engineering staff is on site whenever any work is being done pertaining to the storm water utilities and/or in-ground storm water structures (e.g., catch basins, vortechs units). Any erosion issues are addressed immediately through informal notification. Formal enforcement actions are taken if necessary. There were no enforcement measures taken in Year 3. The Storm Water Committee, Engineering Division, and Building Inspection Office are responsible for this goal.

Additional Measurable Goals and Activities

**SECTION III. A Plan and SWPPP Reviews**

# of Construction Reviews completed: 62

Summary of Reviews and Findings:

Applicants are provided with a list of deficiencies identified from the review process. Permits are issued once deficiencies have been corrected.

**SECTION III.B Erosion and Sediment Control Inspections (Part IV.G.2.n)**

# of Site Inspections: Each site is inspected during construction

# of Complaints Received: 0

# of Violations Issued: 0

# of Unresolved Violations Referred to RIDEM: 0

Summary of Enforcement Actions:



**MINIMUM CONTROL MEASURE #5:  
POST CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT  
(Part IV.B.5 General Permit)**

**SECTION I. MEASURABLE GOALS:**

NOTE: Report must be limited to activities implemented during the third year (calendar year 2006) of the program, which the permittee had listed as a measurable goal in the Storm Water Management Program Plan, or incomplete measurable goals that were required for calendar years 2004 and 2005.

**Please Indicate:**

**If Post - Construction Ordinance was adopted:**

☒ YES

☐ NO

**If copy of ordinance or relevant portions were submitted with signed letter of City or Town Solicitor:**

☒ YES (see attached)

☐ NO

(If you answered NO to the above, please include the required documents with this Annual Report.)

A. REQUIRED MEASURABLE GOALS:								
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	TMDL?	
			YES	NO	ON-TRK		YES	NO
IV.B.5.b.4	3	Review of 100% of plans for development projects one or more acres not reviewed by other State Programs	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.5.b.10	7	Post-construction inspections of BMPs and inspect 100% of all development $\geq$ 1 acre within the regulated area that discharges to the MS4	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.5.b.12	8	Identification of existing structural BMPs	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
B. ADDITIONAL MEASURABLE GOALS:								
IV.B.5.b.7	9	When the City's Comprehensive Plan of Development is updated, opportunities for smart growth such as in-fill development, direct growth to identified areas, and protect sensitive areas will be identified. Additionally, non-structural BMPs as described in the <u>State of Rhode Island Stormwater Design and Installation Manual</u> (as amended) will be considered. Public education will include discussion of ways to limit runoff.			<input checked="" type="checkbox"/>	The City's Comprehensive Plan of Development was not updated in Year 3.		<input checked="" type="checkbox"/>

**SECTION II. OVERALL EVALUATION:**

<b>A. GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:</b>
<b>Include relevant information to the implementation of each measurable goal, such as, activities and audiences engaged. Discussion of activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.</b>
<b>(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals.)</b>
IV.B.5.b.4 Currently, the Engineering Division has developed a system to perform thorough site plan reviews on all projects containing storm water utilities and/or in-ground storm water structures (e.g., catch basins, vortechs units). All site plans that include storm water provisions are reviewed by the Engineering Division. Each project's plan(s) and status are recorded in Microsoft Outlook for quick reference by any City official. Reviews have been appropriate and effective. The DPW Engineering Division, and Building Department are responsible for reviews.
IV.B.5.b.10 The City maintains a list of structural BMPs and inspected all BMPs in Year 2 and Year 3. Maintenance and repairs are determined from the inspections. Owners of properties with detention ponds are provided with letter and an informational brochure when deficiencies are noticed. The City performs maintenance and repairs on City-owned structures.
IV.B.5.b.12 The existing BMPs have been identified, and new BMPs are added as the City issues occupancy certificates. This measure has been appropriate and effective. The Building Department and Engineering Division are responsible for this measure.
Additional Measurable Goals and Activities

**SECTION III.A. Plan and SWPPP Reviews**

# of Post-Construction Reviews completed: 62
Summary of Reviews and Finding: Permits are not issued until deficiencies in design are addressed to the satisfaction of the City.

**POST CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT *cont'd***

**SECTION III.B. Post Construction Inspections: Proper Installation of Structural BMPs (Part IV.G.2.o)**

# of Site Inspections: 9	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions:	

**SECTION III.C. Post Construction Inspections: Proper Operation and Maintenance of Structural BMPs (Part IV.G.2.p)**

# of Site Inspections: 19	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions: The City provides owners with information to maintain their structures. The City has not had to issue violations.	



# **MINIMUM CONTROL MEASURE #6:** **POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS (Part IV.B.6 General Permit)**

## **SECTION I. MEASURABLE GOALS:**

NOTE: Report must be limited to activities implemented during the third year (calendar year 2006) of the program, which the permittee had listed as a measurable goal in the Storm Water Management Program Plan, or incomplete measurable goals that were required for calendar years 2004 and 2005.

A. REQUIRED MEASURABLE GOALS:								
Permit ID#	BMP ID	List Measurable Goal	Was goal met?			If not met briefly list reasons, current status, plans and new date for meeting the goal	TMDL?	
			YES	NO	ON-TRK		YES	NO
IV.B.6.b.1.i	1	Identification, location and description all municipally owned structural BMPs	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.6.b.1.ii	2	Inspection and cleaning BMPs	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.6.b.1.iii	3	Annual catch basin inspection and cleaning program		<input checked="" type="checkbox"/>		City is inspecting and cleaning catch basins on a priority-based schedule. The City concentrates their catch basin cleaning efforts in portions of the City that have historically required more frequent cleaning.		<input checked="" type="checkbox"/>
IV.B.6.b.1.vi	6	Annual road sweeping of all streets and roads within the regulated area annually	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.6.b.1.vii	7	Maintenance activities, schedules and long-term inspection for controls to reduce floatables	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
IV.B.6.b.4	10	Activities implemented for O&M and good housekeeping of non-industrial facilities to minimize or eliminate pollutant runoff			<input checked="" type="checkbox"/>	BMPs are being implemented as funds and/or labor becomes available.		<input checked="" type="checkbox"/>
B. ADDITIONAL MEASURABLE GOALS:								
IV.B.6.b.6	13	Incorporate storm water awareness training into existing training for equipment operators and mechanics (Health & Safety, Right to Know)			<input checked="" type="checkbox"/>	The City plans to rely on the Storm Water Education and Outreach program for training needs in future years.		<input checked="" type="checkbox"/>

**SECTION II. OVERALL EVALUATION:**

<p><b>A. GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:</b></p> <p><b>Include relevant information to the implementation of each measurable goal, such as, activities and audiences engaged. Discussion of activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.</b></p> <p><b>(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals.)</b></p>
<p>IV.B.6.b.1.i The DPW has identified structural BMPs and adds new BMPs when the City takes ownership. This measure was appropriate and effective. The Storm Water Committee and DPW were responsible for the completion and implementation of this goal.</p>
<p>IV.B.6.b.1.ii In Year 3, the City inspected all of its structural BMPs. Inspection and maintenance of the City's BMPs was appropriate and effective. The Engineering Division was responsible for inspections and maintenance.</p>
<p>IV.B.6.b.1.iii The City has developed an annual catch basin cleaning program, a summary of which is attached. The program consists of cleaning the catch basins using a grid system to track the catch basins that have been cleaned. Certain portions of the City, specifically the low lying areas of the developed portions of the City are cleaned more regularly. In Year 3, the City cleaned approximately 407 catch basins, which resulted in the removal of 800 tons of material.</p>
<p>IV.B.6.b.1.vi The City committed to the measurable goal of sweeping all municipal streets in the submitted SWMPP. Presently, all City streets are cleaned at least once a year based on the grid system. In Year 3, the City swept the streets twice. Approximately 950 tons of material was removed from the street sweepings. The DPW was responsible for the completion of this goal.</p>
<p>IV.B.6.b.1.vii The City currently requires that all new and redevelopment projects include installation of catch basin hoods. The City evaluates the need for retrofits as funds become available and targets priority areas. Catch basin inlet grates are cleaned when catch basins are inspected or when municipal employees report a need for cleaning. The annual catch basin cleaning program includes removal of floatables. The need for additional cleaning will be documented on inspection forms. Floatables are also collected by Highway Department laborers during daily litter pickup activities. Trash cans are provided at frequented pedestrian areas including Main Street and the RIPTA bus stops. These trash cans are emptied daily Monday through Friday. Catch basin grates are inspected for debris after heavy wind and/or rain by Highway personnel. A tracking system is being developed for cleaning and repairs. There were no bypass flows eliminated in Year 3. The DPW is responsible for the completion of this goal.</p>
<p>IV.B.6.b.4 An O&amp;M and good housekeeping program was developed during the SWMPP development process. Details regarding this are included in Section 9.0 of the SWMPP. The City reviewed implementation items in Year 3 and identified which items should be implemented in Year 4. The Storm Water Committee, DPW, and hired consultant were responsible for the completion of this goal, and the DPW is responsible for the implementation of the BMPs. BMPs is being implemented as funds and or labor become available.</p>
<p>Additional Measurable Goals and Activities</p>



**POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS cont'd**

**SECTION III.A Structural BMPs (Part IV.B.6.b.1.i)**

BMP ID:	Location:	Name of BMP Owner/Operator:	Description of BMP:
See list			

**SECTION III.B Discharges Causing Scouring or Excessive Sedimentation (Part IV.B.6.b.1.v)**

Outfall ID:	Location:	Description of Problem:	Description of Remediation Taken, include dates:	Receiving Water Body Name/Description:
584	E side of RR tracks 200' N of on Manville Street	Excessive sedimentation	Problem was identified and resolutions will be determined and investigated in Year 4.	Blackstone River

**SECTION III.C Note any planned municipal construction projects/opportunities to incorporate water quality BMPs, low impact development, or activities to promote infiltration and recharge (Part IV.G.2.j).**

<p>The City plans to identify areas for storm water BMPs once the dry weather surveys have been completed.</p>
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**SECTION III.D Please include a summary of results of any other information that has been collected and analyzed. This includes any type of data (Part IV.G.2.e).**

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## TOTAL MAXIMUM DAILY LOAD (TMDL) or other Water Quality Determination REQUIREMENTS

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### SECTION I. Please provide an assessment of the progress towards meeting the requirements for the control of storm water identified in an approved TMDL (Part IV.G.2.d).

The City does not have approved TMDLs for storm water.

CALL, Tuesday, March 6, 2007

CLASSIFIED ADS: 401-766-3400

# The Call Classifieds

## Business Hours:

Friday - 8:00 am-5:00 pm  
In Person 8:00 am-12:00 pm  
By Phone 8:00 am-4:00 pm  
In Person 10:00 am-12:00 pm  
By Phone 10:00 am-5:00 pm



## Website:

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

Classifieds online

"Place A Classified Ad"

is your ad

and user friendly

## Specials

### Yard Sales

4 Lines / 2 Days \$16.00  
4 Lines / 3 Days \$18.00  
Each Additional Line .95 Per Line

### Bargain Bazaar

4 Lines / 3 Days \$10.00  
50c Each Additional Line Per Day  
Items Must Sell Under \$1,000  
(No Pets, Yard Sales or Vehicles)

### 2007 SPECIAL

### A Wheel Of A Deal

4 Lines / 7 Days \$20.07  
50c Each Additional Line Per Day  
Cars, Vans, Trucks, SUV's, Trailers

No Refunds for Early Cancellation  
Rates For Non Commercial  
Private Party Only  
Other Restrictions Apply See Rate Card

OVER 46,000 READERS DAILY & 62,000 SUNDAY

## To Place an Ad...

CALL: 401-766-3400

FAX: 401-767-8509

MAIL: 75 Main Street, Woonsocket, RI 02895

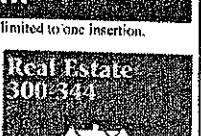
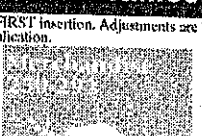
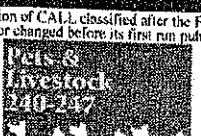
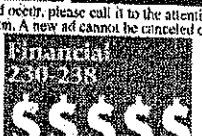
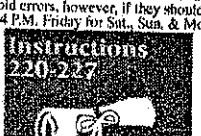
## To Subscribe...

CALL: 401-767-8522

The Call

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

AL - The Call reserves the right to correctly classify and edit copy or to reject or cancel any advertisement at any time. • Every effort is made to avoid errors, however, if they should occur, please call it to the attention of CALL, classified after the FIRST insertion. Adjustments are limited to one insertion. CANCELLATIONS • Cancellations for Tuesday thru Friday ads 4 P.M. day before ad is scheduled to run, 4 P.M. Friday for Sat., Sun. & Mon. A new ad cannot be canceled or changed before its first run publication.



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Lucas Burt #548  
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For the purpose of pay-  
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### 100 Legals

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CONCERN, and to ROBERT L. LAVERDIERE,  
MARY ELLEN LAVERDIERE, POTTER OIL  
CO., ERNEST R. SANTORO, FLEET NATIONAL BANK AS RE-  
CEIVER FOR EASTLAND BANK N/A BANK OF AMERICA, STATE OF RHODE ISLAND, DIVI

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noag Trail, Suite 203 of  
East Providence, RI,  
02915 in the county of  
Providence and said  
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rights of redemption  
from the tax lien pro-  
ceedings described in  
said petition in and con-  
cerning a certain parcel  
of land situated in the  
County of Providence

### 100 Legals

State of Rhode Island  
designated as Lot 19 on  
Assessor's Mat 175.  
If you desire to make  
any objection of defense  
to said petition you or  
your attorney must file a  
written appearance and  
answer, under oath, set-  
ting forth clearly and  
specifically your objec-

### 100 Legals

is filed by or for you,  
your default will be re-  
corded, the said petition  
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fessed and you will be  
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contesting said petition  
or any decree entered  
there on. And in addition  
to the usual service of  
this notice as required  
by law, it is ordered that

### 100 Legals

our SUPERIOR COURT,  
at Providence, this 20th  
day of February, A.D.  
2007.  
Henry S. Kinch Jr.  
Clerk  
CITY OF  
WOONSOCKET,  
RHODE ISLAND  
Invitation to Bid for:

### 100 Legals

ter and sewer charges  
and other encum-  
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veyed subject to any re-  
strictions and ease-  
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and rights of redemption  
for unpaid federal  
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### 100 Legals

Terms of sale shall in-  
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upon the acceptance of  
the successful bid, pay-  
able in cash or by bank  
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time and place of sale.  
The balance shall be  
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**CITATION**  
**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**

Office of the Clerk of the Superior Court  
**PETITION TO FORCLOSE TAX LIEN**  
**FW NO. 06-4579**

**100 Legals**  
**Advertisement for Bids**

**Hill Mobile Home Park Residents' Sewer Connections and Wastewater Treatment Plant Work**  
**GE at Maple Hill, Road**  
**ge at Maple Hill, Mapleville RI**

aled Bids for the construction of, but to, approximately 6,850 linear feet of tertiary sewer services for 126 mobile 1 community office building sewer nple, including all plumbing connec- and the abandonment of existing s, and appurtenant work associated prospective bidders to note, existing d utilities, i.e. electric, telephone, have ded and raised above ground and ex- ground electric, telephone have ben d and abandoned, note that existing still buried and active) will be received

**Hill Mobile Home Park Residents' Assn**  
of  
ville Sewer Commission, Burrillville  
Treatment Facility, 141 Clear River  
ville, RI 02839  
a.m. local time on March 29, 2007 and  
time and office publicly opened and

March 6, 2007, the Contract Documents  
mined and obtained at the Issuing Of-  
Group, Inc., located at 6 Blackstone  
e, Suite 101, Lincoln RI 02865, upon  
\$30.00 for each set. Payments shall  
Bank or Certified Cashiers Check,  
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t Documents may be examined but not  
the office of Thomas S. Hemmen-  
located at: Brennan, Recupero, Cas-  
glio & McAllister, LLP, 362 Broadway,  
RI 02909.  
t Documents may also be examined  
ined during regular business hours at  
F.W. Dodge Reports, 24 Hartwell Av-  
ington, Massachusetts (888)-675-

may withdraw their bid within Ninety  
after the actual date of the opening

ful bidder must furnish 100% Perfor-  
labor and Materials Bonds,  
aters of the funding sources related  
et and the status of the Owner being  
private residential association, pre-  
rates are not required and/or appli-

inference will be held at 10:00 a.m. on  
2007 at the Burrillville Wastewater  
tality, 141 Clear River Drive, Har-  
02839. All prospective bidders are en-  
attend and participate in the confer-  
er will transmit to all prospective  
ord such Addenda as Engineer con-  
sary in response to questions arising  
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urries to Joseph Simmons, Senior En-  
Group, Inc. (401) 333-2382.  
being considered the sole and only  
as the right to waive any informality  
et any and all bids should the Owner  
in the owner's best interest to do so.  
Hill Mobile Home Park Residents' As-

**100 Legals**  
**TO ALL, WHOM IT MAY CONCERN, and to ROBERT L. LAVERDIERE, MARY ELLEN LAVERDIERE, POTTER OIL CO., ERNEST R. SANTORO, FLETCHER NATIONAL BANK AS RECEIVER FOR EASTLAND BANK N/A/BANK OF RHODE ISLAND, STATE OF RHODE ISLAND - DEPT. OF ENVIRONMENTAL MANAGEMENT, PHOENIX J. FINNEGAN, RIGP.**

Whereas, a petition has been presented to said Court by COLLEEN CONLEY, 1445 Wampa-

**CITY OF WOONSOCKET**  
**169 MAIN STREET**  
**WOONSOCKET, RI 02895**

**PUBLIC NOTICE OF DRAFT PHASE II STORM WATER ANNUAL REPORT PREPARED IN ACCORDANCE WITH THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIDDES) PROGRAM GENERAL PERMIT FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS AND FROM INDUSTRIAL ACTIVITY AT ELIGIBLE FACILITIES OPERATED BY REGULATED SMALL MS4s.**

**DATE OF NOTICE:** March 6, 2007  
**PUBLIC NOTICE NUMBER:** RIR040016  
**RIDDES PERMIT NUMBER:** RIR040016  
**NAME AND MAILING ADDRESS OF SMALL MS4 OPERATOR:**  
City of Woonsocket  
169 Main Street  
Woonsocket, RI 02895

Pursuant to the requirements established in the Rhode Island Pollutant Discharge Elimination System (RIDDES) General Permit for Storm Water Discharge from Small MS4s and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s (General Permit), The City of Woonsocket submitted an application package, including Notice of Intent and Storm Water Management Program Plan (SWMPP) to the Rhode Island Department of Environmental Management (RIDEM) for authorization of the storm water discharges from the City of Woonsocket MS4. In accordance with Part IVE of the General Permit, the operator must annually evaluate the compliance of the SWMPP with the conditions of the permit, as well as the appropriateness of the selected Best Management Practices and efforts towards achieving the Measurable Goals. An annual report prepared in accordance with Part IV.G of the general permit must be submitted to RIDEM by March 10th for each year after the permit is issued. Notice is hereby given of the intent to receive public comment and to hold a public meeting, if requested, on the City of Woonsocket Phase II Storm Water Annual Report.

**FURTHER INFORMATION ABOUT THE DRAFT ANNUAL REPORT**  
Copies of the Phase II Storm Water Annual Report may be obtained at no cost by writing or calling City Department as noted below:

Alan Brodd, P.E., City Engineer  
City of Woonsocket  
Public Works and Engineering  
169 Main Street  
Woonsocket, RI 02895  
(401) 767-9213

The administrative record containing all documents is on file and may be inspected, by appointment, at Public Works between 8:30AM and 4:00PM, Monday through Friday, except holidays.

**PUBLIC COMMENT AND REQUEST FOR PUBLIC MEETING:**  
Pursuant to the requirements of the Phase II Small MS4 General Permit, a public meeting has been tentatively scheduled to consider the City of Woonsocket Phase II Storm Water Annual Report, if requested. Requests for a Public Meeting must be submitted in writing to the attention of **CONTACT PERSON** at the address indicated above. Notice should be taken that if the City of Woonsocket receives a request from twenty-five (25) people, a governmental agency or subdivision, or an Association having no less than twenty-five (25) members on or before 4:00PM, March 8, 2007, the public meeting will be held at the following time and place:

March 9, 2007 at 6:00 pm  
Woonsocket City Hall  
3rd Floor - Harris Hall  
169 Main Street  
Woonsocket, RI

Interested persons should contact the City of Woonsocket in advance to confirm if a meeting will be held at the time and location noted above.

Interested parties may submit comments on the draft Annual Report and amendments to the SWMPP and the administrative record to the address above by the close of the public comment period which ends 4:00PM March 24, 2007. Commenters may request a longer comment period if necessary to provide a reasonable opportunity to comply with these requirements.

If, during the public comment period, significant comments are received concerning the draft Annual Report or amendments to the SWMPP, the City of Woonsocket will provide a written response to comments to all persons that submitted comments and all members of the public that request a copy of the response. The response will include a final Annual Report and identify what changes to the SWMPP have been made if any.

**FINAL ANNUAL REPORT AND AMENDMENTS TO THE SWMPP:**

Pursuant to the Phase II Small MS4 General Permit, the City of Woonsocket will submit the final Annual Report and a copy of amendments to the SWMPP to the RIDEM. All records relating to this permit are available for review by the public. The public may view the records during normal business hours at the address indicated above. Changes adding (but not subtracting or replacing) components of the SWMPP may be implemented immediately upon written notification to RIDEM. Unless denied, changes replacing ineffective or infeasible six minimum measure best management practices specifically identified in the SWMPP shall be deemed approved and may be implemented within sixty (60) days from submittal of the request. Changes replacing ineffective or infeasible storm water controls specifically identified in the SWMPP or in an approved scope of work intended to meet the requirements of a Total Maximum Daily Load (TMDL) or other Water Quality Determination may be implemented only upon receipt of written approval from RIDEM.

Alan Brodd, P.E., City Engineer  
Public Works and Engineering  
City of Woonsocket

**100 Legals**  
State of Rhode Island designated as Lot 19 on Assessor's Map 175.  
If you desire to make any objection of defense to said petition you or your attorney must file a written appearance and answer, under oath, setting forth clearly and specifically your objections or defense to each part of said petition, in the office of the Superior Court in Providence on or before April 4, 2007, that you may then and there show cause, if any, why the prayer of the petition should not be granted.  
Unless your appearance

**CITY OF WOONSOCKET**  
**169 MAIN STREET**  
**WOONSOCKET, RI 02895**

**PUBLIC NOTICE OF DRAFT PHASE II STORM WATER ANNUAL REPORT PREPARED IN ACCORDANCE WITH THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIDDES) PROGRAM GENERAL PERMIT FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS AND FROM INDUSTRIAL ACTIVITY AT ELIGIBLE FACILITIES OPERATED BY REGULATED SMALL MS4s.**

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Alan Brodd, P.E., City Engineer  
Public Works and Engineering  
City of Woonsocket

**100 Legals**  
is filed by or for you, your default will be recorded, the said petition will be taken as confessed and you will be forever barred from contesting said petition or any decree entered thereon, and in addition to the usual service of this notice as required by law, it is ordered that the foregoing citation be published forthwith once each week for three successive weeks in the **THE WOONSOCKET CALL**, a newspaper published in said County of Providence VIZ February 27, March 6, March 13, 2007.  
WITNESS, the SEAL, of

**CITY OF WOONSOCKET, RHODE ISLAND**  
**Invitation to Bid for:**  
**BID# 5273 RFP- Solid Waste Procurement- Residential Solid Waste & Recycling Containers/Public Works Dept.**

Specifications are available in the Office of Purchasing, for the City's Procurement of approximately 33,000 Solid Waste/Recycling Containers, Assembly, and Distribution.

Sealed bids will be received by the City of Woonsocket in the Finance Department, Office of Purchasing, City Hall, 169 Main Street, Woonsocket, RI until 2:00 P.M. on Wednesday, March 21, 2007, and then publicly read aloud by the Finance Director in the Office of Purchasing, City Hall, 169 Main Street, Woonsocket, RI at 2:00 P.M.

Individuals requesting interpreter services for the hearing impaired should call the Finance Director at 401-762-6400 seventy-two (72) hours in advance of the bid opening.

Responses will be evaluated on the basis of the relative merits of the bid in addition to the price. The City of Woonsocket reserves the right to reject any and all bids, or parts thereof, to waive any irregularity in the bids received and to accept the bids or parts thereof deemed to be most favorable to the best interest of the city.

Robert F. Strom  
Finance Director  
**MORTGAGEE'S SALE**

**23 Union Street, Lincoln, Rhode Island**

Will be sold at public auction on March 14, 2007 at 3:00 p.m. local time on the premises at 23 Union Street, Lincoln, Providence County, Rhode Island, said parcel to be sold by virtue of a power of sale contained in a certain mortgage made and executed by Ernestine E. Grenon and Robina B. Grenon, which mortgage is dated April 9, 2004 and recorded April 21, 2004 at 12:35 p.m. in Book 1351 at Page 103 in the Woonsocket Records of Land Evidence, the conditions of said mortgage having been broken:

That certain parcel of land with all buildings and improvements thereon more particularly described in said mortgage deed recorded in Book 1286 at Page 208 in the Lincoln Records of Land Evidence, the conditions of said mortgage having been broken:

The above premises will be sold subject to all taxes, assessments, wa-

**100 Legals**  
our SUPERIOR COURT, at Providence, this 20th day of February, A.D. 2007.  
Henry S. Kinch Jr.  
Clerk  
**CITY OF WOONSOCKET, RHODE ISLAND**  
**Invitation to Bid for:**  
**BID# 5273 RFP- Solid Waste Procurement- Residential Solid Waste & Recycling Containers/Public Works Dept.**

Terms of sale shall include a down payment of Five Thousand (\$5,000.00) Dollars upon the acceptance of the successful bid, payable in cash or by bank certified check at the time and place of sale. The balance shall be paid by the purchaser by certified, bank treasurer's or cashier's check within thirty (30) days after the date of the sale. Other terms and conditions to be announced immediately prior to said sale.

By order of the holder of the mortgage which gives notice of its intention to bid at said sale or any postponement or adjournment thereof.

**HARMON LAW OFFICES, P.C.**  
Attorney for the Holder of the Mortgage  
150 California Street  
Newtown, MA 02458  
(617)558-0500  
**MORTGAGEE'S SALE**

**25 Laval Street Woonsocket, Rhode Island**

Will be sold at public auction on March 28, 2007, at 1:00 p.m. local time, on the premises, by virtue of the power of sale contained in a mortgage made by SEAN RYAN and CHRISTINE A. WILLIAMSON, dated August 25, 2003, and recorded in the Records of Land Evidence of the City of Woonsocket, State of Rhode Island, in Book 1301, Page 129, the conditions of said mortgage having been broken:

That certain parcel of land with all buildings and improvements thereon more particularly described in said mortgage deed recorded in said Book 1301 at Page 129.

The above premises will be sold subject to all taxes, assessments, and other encumbrances which may constitute a prior lien thereon and will be conveyed subject to any easements, restrictions of record, tenancies, and rights of redemption for unpaid federal taxes, if any, as shall, notwithstanding this provision, constitute valid liens or encumbrances thereon after said sale.

Terms of sale: deposit of Five Thousand Dollars (\$5,000.00) in cash, certified check, or bank check at time and place of sale. Other terms and conditions will be announced at the sale.

By order of the holder of the mortgage, who hereby gives notice of intention to bid at said sale or any postponement or adjournment thereof.

**PARTRIDGE SNOW & HAHN LLP**  
Attorneys for Holder of the Mortgage  
180 South Main Street  
Providence, Rhode Island 02903  
(401) 851-8293  
**MOVE IT WITH CLASSIFIED 766-3400**



# The Call

## Students learn clean water is still an upstream battle

JEFF B. NADEAU, Staff Writer

Efforts to clean up the Blackstone River have been under way since the 1970s and well organized since the creation of the John H. Chafee Blackstone River Valley National Heritage Corridor through an act of Congress in 1986. But Woonsocket High School science teacher Michael Ferry knows even more must be done for the Blackstone watershed to maintain its pace of improvement in the years ahead.

So on Monday, Ferry and a corps of volunteers from the Blackstone Valley Rivers Project took over Donovan Dining Center and nearby meeting rooms at Rhode Island College to put on the 2006 Clean Water Festival for high schools and middle schools in the Blackstone Valley area.

In all, nearly 1,000 students visited the college to view displays and activities on clean water issues the high school students and their environmental science teachers prepared for the event. The event took advantage of a near quiet college campus resulting from spring break.

The student displays highlighted the work needed to make the Blackstone River reach a federal water quality designation as safe for both swimming and fishing for human consumption by 2015.

Ferry was pleased with the number of students taking part in the fourth such water quality festival he has organized but said any level of interest will help in the long run.

"If 10 kids get turned on to the environment and what's going on in the Blackstone Valley then I've accomplished my goal," Ferry said.

"My goal is to get the next generation excited about the environment and taking advantage of opportunities to volunteer and help," he said.

If the 10 students get involved in cleanup and water quality awareness projects, they will in turn inspire even more people to join the efforts, he said.

Out in the dining area of Donovan, Ponaganset High School juniors Haley Witman and Allison Blanco worked with a group of sixth-graders attending the festival while demonstrating how phosphates and nitrates in household detergents and lawn fertilizer products can leach from residential properties and have an impact on the Blackstone River.

The student project included a model showing how such chemicals can easily pass through soil and reach the groundwater below.

Blanco said she and Witman were part of a group of seven students at Ponaganset who participate in a clean water club organized by Ponaganset science teacher Linda Bucci.

Bucci took a training course on river studies Ferry puts on at Woonsocket High School each summer and started the club at her school last year.

While still a small group, Witman said she and her peers feel like they are making a difference for their community.

"Clean water affects everyone and helps the environment," she said.

Students from the aquaculture and environmental science classes at Woonsocket High School put together a different demonstration for the festival's visitors showing the power of water as a working force.

The idea was in keeping with Woonsocket's past use of waterpower as an engine running its early industries, according to Deidre Piers, one of seven students operating the school's booth.

Featuring a balance beam similar to a see-saw, the students used one-gallon jugs of water to determine the weight of a student standing on the opposite end of the contraption.

A man weighing 182 pounds required 22 gallons of water to balance the beam, whereas the average middle school student came in at about 13 gallons.

The demonstration of water's density and weight showed why the river helped spark the American industrial revolution, according to the city students.

"Water is heavy enough to turn water wheels, and that powered the mills," Piers said.

The festival also had booths set up by Jan Ferry's environmental science students at Mount St. Charles Academy, Woonsocket, showing how pollution can affect river animal life such as turtles and frogs, and by Michael Pariseau's science students at Cumberland High School on how you can be fooled by water that looks clear and yet contains suspended elements.

Other schools creating booths included Shea High School in Pawtucket, Northbridge High School, Nipmuc Regional in Upton, Mass., and the Assumption Middle School in Millbury, Mass.

A booth staffed by members of the federal Environmental Protection Agency office in Boston showed another aspect of the river's connection to industry; industrial pollution and the work needed to clean up spills and hazardous materials dumped along its banks.

David Newton, an EPA Superfund site manager charged with monitoring the impact of a long-closed landfill on the banks of the Blackstone in Lincoln, showed students satellite photographs of the dump and its proximity to the river and surrounding residential neighborhoods.

The Boston EPA office is also operating a cleanup project at the former Peterson-Purtian site at Martin Street, Cumberland, that filters groundwater in a process that is expected to continue for many years, Newton said.

The EPA's monitoring of the J.M. Mills landfill in Lincoln is expected to help develop a plan for permanently capping the area and identify suitable options for its future use.

The booth also had a computer showing some of the work members of the Boston office did while helping out in the aftermath of Hurricane Katrina last fall.

"We just brought a lot of things to show what the EPA does to help a neighborhood and the people who live there," he said.

Other agencies setting up displays included the Coast Guard, Save the Bay, the Rhode Island and Massachusetts Audubon societies, the Blackstone River Coalition, Friends of the Moshassuck River Watershed, Friends of the Blackstone River and the Blackstone River Coalition.

U.S. Sen. Lincoln Chafee also stopped by the event and commended the students for continuing the work of his late father for water protection 30 years ago.

"This is the fourth annual festival, and it's great to see that it is growing every year," Chafee said.

The fact the Clean Water Festival has a finish line for its goals — that of making the Blackstone fishable and swimmable by 2015 — was also good, he said.

"This group and everyone involved with it learns more about how to achieve that goal and how to prevent pollution of the Blackstone," he said.

Chafee said his own goal is to see that the corridor gains reauthorization for another 10 years of work to improve the Blackstone River watershed.

"It's one of my top priorities," the senator said. "When people say what are your priorities, I always say reauthorization of the corridor is right at the top."

David Abbott, deputy commissioner of elementary and secondary education, joined Rhode Island College Dean of Education Julie Wollman-Bonilla in welcoming the young science students to the college and commended them for their interest in the

environment.

"It's just very encouraging that young kids today are keeping up with environmental issues," Abbott, an environmental science major in college, said. Abbott, who worked for a time as an environmental lawyer, recalled that after the successes of the 1970s there was also a period when it seemed interest in protecting the environment had waned.

"This shows that protecting the environment is more than just a memory, it's alive and well," he said.

©The Call 2007



Spring Vol 2, Issue 2  
Greetings!

April, 2006

As we celebrate spring in the Blackstone Valley with an abundance of outdoor activities, we also care for our natural environment. This Saturday, Earth Day, be sure to sign up to Keep the Valley Beautiful at several clean-ups available. (See article).



In this issue

- Keep the Valley Beautiful for Earth Day
- Win a Canoe!
- Twentieth Anniversary Celebration - Apple Blossom Reception
- Samuel Slater Canal Boat and Blackstone Valley Explorer to Ply the Waters of The Blackstone
- New Tour of the Valley Added to Tour RI
- Valley Tapestries



***Keep the Valley Beautiful for Earth Day***  
The Great American Cleanup is here for Earth Day! Numerous cleanups are going on throughout the Blackstone Valley on **Saturday, April 22**. Volunteers are meeting at River Island Park in Woonsocket, Woodlawn Community Center in Pawtucket, Burillville Public Works Garage, Smithfield Conservation Center, and Bridgido's Market in North Smithfield (on April 29). Contact Names and Phone numbers are listed below. All clean-ups are scheduled from **9am-12pm**.

## Rain Gardens

A rain garden is a man-made depression in the ground that is used as a landscape tool to improve water quality. The rain garden forms a bioretention area by collecting water runoff and storing it, permitting it to be filtered and slowly absorbed by the soil.

Last year, two pilot rain gardens were planted in cooperation with local high schools, Shea in Pawtucket and Woonsocket High. As an outflow of these projects, Cathryn MacDonald of the NRICD has created a brochure to walk residents through the process of implementing their own rain gardens.

This year 400 of brochures were distributed throughout Rhode Island. In addition, NRICD has added a new section to our website on rain gardens. This site will bring you step by step through the process we went through in creating rain gardens at area schools in order to aid others through the process. The site also has all the information needed to create your own rain garden. Go to [www.nricd.org](http://www.nricd.org) and click on Rain Gardens for more information.

## 2006 Seedling Sale

Our Spring 2006 Seedling Sale proved to be a success! We once again sold the butterfly/wildlife seed packet this year plus some other new items. The district was able to distribute an excess of 8,080 seedlings throughout the State of RI and parts of MA and CT. We netted \$3,030.85 which goes to support education programs and workshops not funded through grants. NRICD offered plants appropriate for rain gardens in our 2006 tree seedling program and we also directed interested people to garden centers specializing in wetland and native plant species that are appropriate for rain gardens. We will continue to have plants that can be used in rain gardens in the spring. You can call 949-1480 to be put on the mailing list to receive a seedling brochure in the spring.

## Northern RI Conservation District

### FY 05-06 Financial Statement

Salaries - District Personnel	89,213.39
Office Expenses:	
Administrative Expenses	7.00
Rent	4,598.88
Oil	1,000.00
Insurance (bonding/liability)	728.89
Workers Compensation	428.00
Postage	434.27
Stationary and supplies	279.57
Printing/Advertising	1,453.89
Volunteer expenses, parking, etc.	215.53
Computer Expenses	1,842.36
Grant Expenses (above salaries):	23,911.08
Legislative outreach (from seed profits)	90.49
Mileage	814.78
Annual Dinner	1,275.00
Office Expenses	233.67
Memberships and Contributions:	
National Association of Conservation Districts	775.00
Envirothon Support	1,000.00
Ancillary Expenditures	81.89
Contribution - Big E 2000	41.72
RI Association of Conservation District Dues	1,500.00
Meeting and Conferences	370.75
Directors	1,475.00
<b>Total Expenses</b>	<b>131,770.96</b>
Income:	
Town Contributions	5,300.00
State Contribution	54,391.00
Other Income:	
Interest	338.33
Seedling, bulb, topo sales, membership	3,306.11
Annual Dinner	1,320.00
Grant Income:	64,663.48
State Committee Income	4,437.07
<b>Total Income:</b>	<b>133,755.99</b>



**Reducing Flood Losses in Rhode Island  
Annual Statewide Conference  
October 30, 2006**

**AGENDA**

8:30 a.m.	Welcome	<i>Senator Jack Reed (invited) MG Robert Bray, RI National Guard (invited) Robert Warren, Director, RIEMA</i>
9:00 a.m.	Conference Objectives	<i>Pam Pogue, RIEMA</i>
9:15 a.m.	RI at Risk: Flooding	<i>Pam Pogue, RIEMA</i>
9:45 a.m.	Recent Flood Disasters in NE	<i>Pam Pogue, RIEMA</i>
10:15 a.m.	2006 RI NFIP Initiatives to Address Flood Issues	<i>Pam Pogue, RIEMA</i>
10:45 a.m.	BREAK	
11:00 a.m.	How to Reduce Flood Losses Through Land Use: ASFPM's No Adverse Impact	<i>George Riedel, ASFPM</i>
11:40 a.m.	Discussion	
12:00 p.m.	LUNCH	
1:00 p.m.	Overview of the Certified Floodplain Managers Program	<i>Kevin Houck, CO Water Conservation Board, Flood Protection Section</i>
1:30 p.m.	CFMs Across the Nation	<i>George Riedel, ASFPM</i>
2:00 p.m.	Discussion	
2:15 p.m.	How to Address Flood Issues in RI: Establishing a State Flood Mitigation Association	<i>Karl Christians, Montana Conservation District</i>
2:45 p.m.	The Colorado Association	<i>Kevin Houck, CO Water Conservation Board, Flood Protection Section</i>
3:00 p.m.	The Missouri Chapter	<i>George Riedel, ASFPM</i>
3:15 p.m.	The Rhode Island Flood Mitigation Association	<i>Pam Pogue, RIEMA</i>
3:30 p.m.	Discussion	
4:00 p.m.	Next Steps	

**"ADDRESSING FLOOD ISSUES IN RHODE ISLAND"**

DATE: Monday, October 30, 2006

TIMES: 8:30 a.m. - 4:30

LOCATION: Radisson Airport Hotel, 2081 Post Road, Warwick, RI

REGISTRATION FORM

NAME: Alan Brodd & Michael DeBrosse

SS #: \_\_\_\_\_ (optional, for tracking purposes only)

TITLE: City Engineer & Construction Manager

DEPARTMENT: DPU/Engineering Division

\*ADDRESS: 169 Main St  
(\*where acceptance letter should be sent)

CITY/TOWN: Woonsocket ZIP CODE: 02895

PHONE NUMBER: 767-9213 FAX NUMBER: 767-8712

E-MAIL ADDRESS: WDEBROSSE@WOONSOCKETRI.ORG

FAX OR MAIL TO:  
RI EMERGENCY MANAGEMENT AGENCY  
645 NEW LONDON AVENUE  
CRANSTON RI 02920  
FAX: 401-944-1891  
ATTENTION: MICHELLE SAN SOUCI



Many states and municipalities are beginning to find that the efforts of using silt fence and hay or straw bales are less than effective. As better tools become available, shouldn't we always consider replacing the old tools with better, more efficient ones?

Join us for a

**Breakfast & Presentation**

**Thursday, May 11, 2006 - 9:00 a.m.**

**at the West Valley Inn (4 Blossom Street), West Warwick**

**Please respond by  
May 3, 2006**

**In addition to breakfast, we'd like to offer you valuable information on**

**Storm Water Management**

**and**

**the Benefits of Compost in Erosion and Sediment Control**

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**Thanks in advance for allowing us to raise the awareness of progressive engineers, and state, city and town officials like you! Please contact us today to reserve your place at this informative session.**

**R.S.V.P..... with 'Debby' at New England Mulching Services**

**Phone: 464-6600**

**Fax 946-8390**



**NEW ENGLAND  
STORMWATER TECHNOLOGY  
WORKSHOP**

**DATE:** Tuesday, April 11, 2006

**TIME:** 9 am to 12 noon

**PLACE:** Holiday Inn - Mansfield  
31 Hampshire Street  
Mansfield, Massachusetts

**AGENDA:**

8:30 Breakfast/Registration

9:00 Stormwater Treatment with Stormceptor®

10 Minute Break

10:00 Massachusetts Stormwater Technology  
Evaluation Project (MASTEP)  
Dr. Eric Winkler, University of Massachusetts

10 Minute Break

11:00 Technology Acceptance and Reciprocity  
Partnership (TARP) Program

12:00 Lunch  
Compliments of Rinker Materials





## New England Stormwater Technology Workshop

Rinker Materials invites you to attend a complimentary New England Stormwater Technology workshop.

**DATE:** Tuesday, April 11, 2006

**TIME:** 9 am to 12 noon

**PLACE:** Holiday Inn - Mansfield, 31 Hampshire Street, Mansfield Massachusetts  
([www.holidayinnboston.com](http://www.holidayinnboston.com))

Workshop Topics will include:

**Stormwater Treatment with Stormceptor®**

Learn up-to-date design and performance information on Stormceptor®.

Stormceptor® is currently providing stormwater treatment in over 300 cities and towns in New England with over 2,500 systems in service. Stormceptor® design, applications and installations, sizing methodology, maintenance considerations, and NPDES "Good Housekeeping" will be included in the discussion.

**Massachusetts Stormwater Technology Evaluation Project (MASTEP)**

MASTEP Project Manager Mr. Jerry Schoen will highlight this new and exciting project. Mr. Schoen will walk participants through the publicly-accessible database of performance characteristics of innovative stormwater treatment technologies. The goal of the project is to provide technology transfer information about innovative Best Management Practices (BMPs) to MA DEP, Conservation Commissions, Local Officials, and other BMP users to help them make appropriate technology implementation decisions.

**Technology Acceptance and Reciprocity Partnership Program (TARP)**

One of the most stringent stormwater BMP testing programs developed to date. The TARP testing program is now referenced in the 2004 Connecticut Stormwater Quality Manual published by the CT DEP and the Massachusetts MASTEP Program. See what the participating states of California, Illinois, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, and Virginia are looking for in stormwater BMP performance. Learn how Stormceptor compares with other technologies in the program. Which states will be the next to join?

*Lunch will be served – Compliments of Rinker Materials*

Please contact Carol @ 413-562-8547 to reserve your seat. Space is limited.





**UNIVERSITY OF MASSACHUSETTS  
AT AMHERST**

Engineering Laboratory Building  
160 Governors Drive  
Amherst, MA 01003-9265

Center for Energy Efficiency and  
Renewable Energy Department of  
Mechanical and Industrial  
Engineering

(413) 545-2853  
(413) 545-1027 FAX

**Massachusetts Stormwater Technology Evaluation Project**

MASTEP has created a web site<sup>1</sup> at [www.mastep.net](http://www.mastep.net) to host a publicly accessible database of performance characteristics for innovative stormwater treatment technologies.

The database provides a source of verified technical information on stormwater Best Management Practices (BMP) to Massachusetts conservation commissions, local officials, and other BMP users. The objective is to assist communities to maximize environmental benefits by focusing efforts on technologies that have the most promising potential to reach specific water quality objectives.

Technology manufacturers and testers may use the web site to enter detailed information (including performance testing) about specific technologies\*. Technology entries are then thoroughly screened by MASTEP staff and included in the searchable database. A robust screening protocol is used to rank technologies into categories (evaluation complete and performance rates given; evaluation incomplete, performance claims unverified; evaluation unavailable, no performance rates). Testing protocols such as the Technology Acceptance Reciprocity Partnership (TARP) are used to evaluate the quality of data and performance characteristics

Database users can utilize any number of site conditions, water quality objectives, cost, or performance-based factors to screen and evaluate compatibility of a BMP product with project needs and limitations. The database provides reports on vendor-provided information on cost, installation and maintenance requirements, and other product specifications.

The web site also provides background information on stormwater and BMPs to help end users understand the technology reviews.

\*Technology submissions are welcome. To list a product on the web site,

- Visit the project web and register
- Select "The Database" from the home page menu
- Select "Data Entry Tool" and follow the instructions given there.

For more information please contact:

Jerry Schoen  
MASTEP Project Manager  
Blaisdell House  
UMass  
Amherst MA 01003  
413-545-5532 [jschoen@tei.umass.edu](mailto:jschoen@tei.umass.edu)

**Sample screen shots from MASTEP web site**

<sup>1</sup> This project has been financed with Federal Funds from the Environmental Protection Agency (EPA) to the Massachusetts Department of Environmental Protection (the Department) under an s. 319 competitive grant. The contents do not necessarily reflect the views and policies of EPA or of the Department, nor does the mention of trade names or commercial products constitute endorsement or recommendation for use.

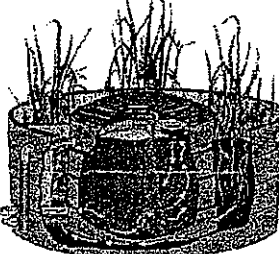
1 Not yet rated for TSS 2 TARP-compliant data for TSS exists 3 Promising TSS performance studies underway 4 No TARP-compliant data exists yet for TSS

Rank	Status	Model	Technology
1	3	VS10	<b>VortSentry</b> :: BMP Type: Swirl or vortex separator ( <i>Sedimentation Unit</i> ). Pollutants Addressed: Suspended sediment concentration; Total suspended solids; Total solids; Oil and grease; Debris - floatables; Debris - sinking; Zinc; Copper; Lead; Iron; Chromium; Mercury; Cadmium; Ammonium; Hydrocarbons; Organic contaminants; Salt; Fecal coliform; E. coli; Enterococcus; Total nitrogen; Total Phosphorus; Temperature.]
2	0	Module II	<b>Hanco Storm Water Quality Unit</b> :: BMP Type: Oil/sediment separator ( <i>Sedimentation Unit</i> ). Pollutants Addressed: Total suspended solids; Oil and grease; Debris - floatables; Hydrocarbons.]
3	2	PM9020_20_5	<b>CDS Offline Unit</b> :: BMP Type: Swirl or vortex separator ( <i>Sedimentation Unit</i> ). Pollutants Addressed: Total suspended solids; Oil and grease; Debris - floatables.]
4	2	None	<b>StormTreat System (TM), Inc.</b> :: BMP Type: Oil/sediment separator ( <i>Sedimentation Unit</i> ). Pollutants Addressed: Total suspended solids; Zinc; Lead; Chromium; Total Kjeldahl Nitrogen; Total Phosphorus.]
5	2	STC.1200	<b>In-Line Stormceptor</b> :: BMP Type: Oil/sediment separator ( <i>Sedimentation Unit</i> ). Pollutants Addressed: Suspended sediment concentration; Total suspended solids; Oil and grease; Zinc; Copper; Lead; Iron; Chromium; Mercury; Cadmium; Ammonium; Hydrocarbons; Total Kjeldahl Nitrogen; Total Phosphorus.]
6	0	Various (VF4r to VF1218)	<b>VortFilter</b> :: BMP Type: Inorganic Filter ( <i>Filtration - Media Filter</i> ). Pollutants Addressed: Total suspended solids; Total solids; Oil and grease; Debris - floatables; Debris - sinking; Zinc; Copper; Lead; Iron; Chromium; Mercury; Cadmium; Ammonium; Total nitrogen; Total Phosphorus.]
7	2	4-FT	<b>Downstream Defender</b> :: BMP Type: Swirl or vortex separator ( <i>Sedimentation Unit</i> ). Pollutants Addressed: Total suspended solids; Total solids; Oil and grease; Debris - floatables.]
8	2	StormFilter	<b>StormFilter</b> :: BMP Type: Inorganic Filter ( <i>Filtration - Media Filter</i> ). Pollutants Addressed: Total suspended solids; Zinc; Copper; Hydrocarbons.]
9	3	not specified	<b>Grate Inlet Skimmer Box</b> :: BMP Type: Catch Basin Insert ( <i>Pretreatment Technology</i> ). Pollutants Addressed: Total suspended solids; Debris - floatables; Total Kjeldahl Nitrogen; Total Phosphorus.]
10	2	1K	<b>BaySaver Separation System</b> :: BMP Type: Oil/sediment separator ( <i>Sedimentation Unit</i> ). Pollutants Addressed: Suspended sediment concentration; Total suspended solids; Oil and grease; Debris - floatables; Debris - sinking.]
11	2	7000	<b>Vortexis System</b> :: BMP Type: Swirl or vortex separator ( <i>Sedimentation Unit</i> ). Pollutants Addressed: Suspended sediment concentration; Total suspended solids; Total dissolved solids; Total volatile solids; Total solids; Oil and grease; Debris - floatables; Debris - sinking; Zinc; Copper; Lead; Iron; Chromium; Mercury; Cadmium; Hydrocarbons; Organic contaminants; Salt; Fecal coliform; E. coli; Enterococcus; Total nitrogen; Total Phosphorus.]

Technology listing shown above

Individual technology summary display shown at right

**StormTreat System (TM), Inc. - A Product from STORMTREAT SYSTEMS**



**General Information**  
Find information on the BMP type, applications and pollutants treated

**Cost**  
Per unit, CFS, and/or lb of pollutant removed

**Design Considerations**  
Installation and maintenance requirements, design methodology, setbacks, capacities, etc.

**Site and Environmental Considerations**  
Storm types, drainage area, soil types, infiltration rate, residuals, secondary impacts, etc.

**Performance Evaluation**  
Summary table of test status, our rating, link to more detailed information, list of test reports

**In Brief:**  
The system is a prefabricated unitary structure which provides sedimentation, oil and grease separation, sand filtration, and biological filtration. In the system, a 3-chambered sedimentation unit and oil and grease separator is combined with a contained biofilter. The system is designed as a recharge unit or with controlled discharge to surface water or a stormwater conveyance system (Closed Mode). The system is 9.5 feet in diameter and 4 feet in depth. Depending on the area to be treated, any number of units could be utilized in parallel. The chamber is manufactured using rotational molded recycled polyethylene. Other components are made of PVC, gravel (in the biofilter), native wetland plants (in the biofilter), metal closures, and various fittings constructed of plastic or other durable materials. All installation of the StormTreat system require basic pretreatment in the form of a separate stormwater inlet or catch basin. The unit, designed for recharge, is installed in a 12' x 12' excavation, with a minimum of 12" below the unit and stone surrounding the unit's sides. The closed mode unit is installed in the same sized excavation with 6" of stone below the unit. Treated stormwater effluent discharges from the closed mode unit through a 1 to 2" PVC pipe to a surface discharge or stormwater conveyance system.



# Healthy Drinking Waters for Rhode Islanders

SAFE AND HEALTHY LIVES IN SAFE AND HEALTHY COMMUNITIES

## **Controlling Stormwater Runoff Through Better Site Design**

**Tuesday, April 4, 2006  
4:30 – 6:30 PM**

**Cumberland Library Community Room  
1464 Diamond Hill Road  
Cumberland RI (*directions on reverse*)**

***For local decision-makers and river advocates  
Sponsored by the Blackstone River Coalition***

Please join us in a discussion of Conservation Development design and "low impact" stormwater management methods, how they work together, and how to implement them in your community. This session will help set the stage for a creative partnership among planning boards, conservation commissions, and developers that can reduce impervious surfaces, infiltrate rainwater, and protect vegetated areas. The focus will be how updated stormwater design standards can be incorporated into Conservation Development, zoning, and subdivision ordinances. This is an in-depth follow up to the January 26 program "Better Storm Water Management: Mitigating flood impacts in the Blackstone River Valley".

**Presenters:** Lorraine Joubert, Director of RI Nonpoint Education for Municipal Officials, URI Cooperative Extension  
Scott Millar, Chief of Sustainable Watersheds, RIDEM  
Nathan Kelly, AICP, Project Manager, Horsley Witten Group

**To register, contact Frank Matta at 401-334-5003 or [brcoalition@yahoo.com](mailto:brcoalition@yahoo.com).**

## The Blackstone River Coalition

The Blackstone River Coalition is a partnership of numerous organizations, businesses, municipalities, agencies and individuals working to restore the Blackstone River and to improve the health of the Blackstone River watershed.



[www.zaptheblackstone.org](http://www.zaptheblackstone.org)

Dear Local Decision Makers and Blackstone River Advocates:

## Better Storm Water Management in the Blackstone Valley – Part 2: Rhode Island

Keeping its promise from our highly successful storm water conference, the Blackstone River Coalition is bringing you more technical assistance to help you better manage storm water in your community, and to reduce flooding. Our January 26th conference gave you a broad-brush approach to two “tools” to reduce storm water impacts in the Blackstone Valley – Conservation Development and Low Impact Development (LID) Strategies – and we heard loud and clear that you would like more detail. Along with crafting the position of Blackstone Storm Water Circuit Rider, we have developed the following workshop for the Rhode Island side of the watershed, and we’re planning a similar opportunity for our Massachusetts communities:

**Part 2: Controlling Storm Water Runoff Through Better Site Design**  
Tuesday, April 4, 2006 4:30 – 6:30 p.m.  
Cumberland Library Community Room  
1464 Diamond Hill Road, Cumberland, RI  
(directions on reverse)

Presenters: **Lorraine Joubert**, Director, URI Nonpoint Education for Municipal Officials, URI, Cooperative Extension  
**Scott Millar**, Chief, Sustainable Watersheds, RIDEM  
**Nathan Kelly**, AICP, Project Manager, Horsley Witten Group

These presentations will give a much deeper understanding of Conservation Development and LID, how they work together, and how to implement them in your community. They’ll help set the stage for a creative partnership among planning boards, conservation commissions and developers that will reduce impervious surfaces, infiltrate rainwater, and protect vegetated areas. The focus will be how storm water (LID) design standards can be incorporated into Conservation Development, zoning, and subdivision ordinances.

Please come and learn how to reduce storm water volume to minimize flooding in your community.

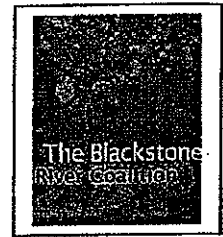
To register, contact Frank Matta at 401-334-5003 or [brcoalition@yahoo.com](mailto:brcoalition@yahoo.com). There is no charge for this workshop.

Sincerely, on behalf of the Blackstone River Coalition,

*Karen Mateleska*  
Karen Mateleska, Director  
BRC

*Frank Matta*  
Frank Matta, President  
Blackstone River Watershed Council

# **Better Storm Water Management in the Blackstone Valley – Part 2: Massachusetts and Rhode Island Workshops**



**Sponsored by the Blackstone River Coalition**

Keeping its promise from our highly successful storm water conference, the Blackstone River Coalition is bringing you more technical assistance to help you better manage storm water in your community, and to reduce flooding. Our January 26 conference gave you a broad-brush approach to two "tools" to reduce storm water impacts in the Blackstone Valley – Open Space Residential/Conservation Development Design and Low Impact Development (LID) Strategies – and we heard loud and clear that you would like more detail. Along with crafting the position of Blackstone Storm Water Circuit Rider, we have developed the following workshops, one for the Massachusetts side of the watershed, and one for the Rhode Island side:

## **Part 2: Massachusetts**

### **Controlling Storm Water Runoff Through Better Site Design**

Thursday, March 23, 2006, 9:30 a.m. – 11:30 a.m.

Brigham Hill Community Barn

37 Wheeler Road, North Grafton (map below)

**Presenters:** Andrea Cooper, Smart Growth Coordinator, EOE  
Nathan Kelly, AICP, Project Manager, Horsley Witten Group

Andrea and Nate return to the Blackstone Valley to give a much deeper understanding of OSRD and LID, how they work together, and how to implement them. They'll help set the stage for a creative partnership among planning boards, conservation commissions and developers that will reduce impervious surfaces, infiltrate rainwater, and protect vegetated areas. Andrea and Nate will also explore an array of options on how to implement these concepts in your community.

To register, contact Donna Williams at 508-753-6087 or [dwilliams@massaudubon.org](mailto:dwilliams@massaudubon.org)

## **Part 2: Rhode Island**

### **Controlling Storm Water Runoff Through Better Site Design**

Tuesday, April 4, 2006 4:30 – 6:30 p.m.

Cumberland Library Community Room

1464 Diamond Hill Road, Cumberland, RI (directions below)

**Presenters:** Lorraine Joubert, Director, URI Nonpoint Education for  
Municipal Officials, URI, Cooperative Extension  
Scott Millar, Chief, Sustainable Watersheds, RIDEM  
Nathan Kelly, AICP, Project Manager, Horsley Witten Group

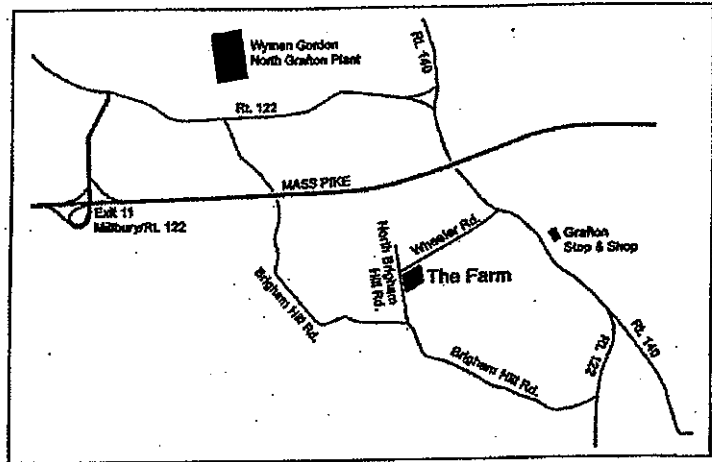
These presentations will give a much deeper understanding of Conservation Development and LID, how they work together, and how to implement them in your community. They'll help set the stage for a creative partnership among planning boards, conservation commissions and developers that will reduce impervious surfaces, infiltrate rainwater, and protect vegetated areas. The focus will be how storm water (LID) design standards can be incorporated into Conservation Development, zoning, and subdivision ordinances.

To register, contact Frank Matta at 401-334-5003 or [brcoalition@yahoo.com](mailto:brcoalition@yahoo.com). There is no charge for this workshop.

**These workshops are part of the Campaign for a Fishable/Swimmable Blackstone River by 2015**

Please come and learn how to reduce stormwater volume to minimize flooding in your community.

**Map to the Brigham Hill Community Barn**  
37 Wheeler Road, N. Grafton

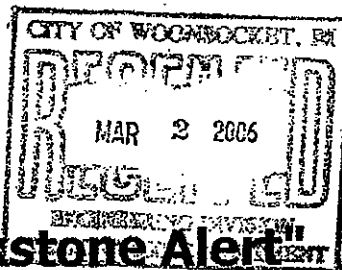


**Cumberland Library, 1464 Diamond Hill Road, Cumberland, RI 02864**  
(tel) 333-2552

**Directions: From Providence:** take Rt. 146 North to Rte. 295. Take Route 295 North to exit 11 (Route 114, Diamond Hill Rd.). Turn right onto Diamond Hill Rd. and drive about one mile south. On your right, you will see a big red and blue sign that reads "The Monastery". This marks the entrance to the Monastery grounds where the library is located. Turn right at Monastery Drive and follow it into the parking lot. The library is set far back from the main road.

**From the South:** take Rte. 95 North to Rte. 295. Follow same directions as above.

**From the North:** take Rte. 95 South to Rte. 295. Take Rte. 295 South to exit 11 (Rte. 114, Diamond Hill Road). Turn left onto Diamond Hill Road and drive about one mile south. On your right, you will see a big red and blue sign that reads "The Monastery". This marks the entrance to the Monastery grounds where the library is located. Turn right at Monastery Drive and follow it into the parking lot. The library is set back from the main road.



## "Blackstone Alert"

# 21<sup>st</sup> Century Flood Mitigation Forum

Kirkbrae Country Club, Lincoln, Rhode Island

March 9th, 2006

Only four months after one of the worst floods in Blackstone Valley history, key community stakeholders and leaders will gather their efforts and expertise in a round-table discussion to address future floods with the aim at mitigating damage.

The rainfall of October 2005 significantly impacted businesses and communities in the Blackstone Valley. Millions of dollars in damage was done to commercial, government, non-government and residential properties.

Join the National Weather Service, the North East River Forecast Center and Applied Science Associates as they present facts about the October flood, present a stunning computer visualization of a flooded Blackstone Valley and offer their help and expertise to the Blackstone Valley community with managing future floods.

Based on the need for sustainable development in the Blackstone Valley, this forum aims to better understand the Blackstone River and to initiate a management and communication process that will introduce preventive or corrective measures.

This is an opportunity to strategize the way we prepare, react and recover in times of river flooding in the Blackstone Valley!

Please join us at the 2005 "Blackstone Alert" - 21<sup>st</sup> Century Flood Mitigation Forum to do the most good for the most people. Mark your calendar to attend a morning session on **March 9<sup>th</sup>, 2006, 8am-12pm** at **Kirkbrae Country Club, Old River Road, Lincoln, RI**. Breakfast, courtesy of the Northern Rhode Island Chamber of Commerce, and registration will begin at 8am.

For more information contact the Blackstone Valley Tourism Council, Robert Billington, 401-724-2200 or the Northern Rhode Island Chamber of Commerce, John Gregory, 401-334-1000.

**Prior registration is required.** For invited guest only. Please submit registration form by **March 6<sup>th</sup>, 2006**. Email, mail or fax your RSVP to Veronica Cadoppi: [bvplanning@aol.com](mailto:bvplanning@aol.com), 401-724-1342, BVTC, 175 Main Street, Pawtucket, RI 02860. Thank you!

Consultation services provide by New Commons  
Forum funded by the JHC Blackstone River Valley National Heritage Corridor Commission

# **"Blackstone Alert"**

## **21<sup>st</sup> Century Flood Mitigation Forum**

**Kirkbrae Country Club, Lincoln, Rhode Island**

**March 9th, 2006**

### **Forum Objectives**

1. Create a shared understanding of the conditions surrounding the flood – What happened in October 2005?
2. Identify areas where more information on conditions is required
3. Create a 'first draft' inventory of the capability required to mitigate flood damage (and extending to general disaster mitigation) in the Blackstone Valley
4. Establish an outline of next steps

### **Program**

- 8:00 am      **Breakfast**
- Registration – Amanda Wood, Blackstone Valley Tourism Council
- "Operation October Rain" Power Point presentation, projected during breakfast.
- 8:30 am      **Welcome – Veronica Cadoppi, Tourism Planner, Blackstone Valley Tourism Council, Conference Organizer**
- 8:32 am      **Opening remarks – John Gregory, President/CEO, Northern Rhode Island Chamber of Commerce**
- 8:35 am      **Introductions – Robert Billington Ed. D., President, Blackstone Valley Tourism Council**
- Orientation of the October rains and a situation analysis - Robert Billington
- 8:45 am      **Today's objectives and program – Larry Quick**  
Overview of the objectives and program for the day
- 8:50 am      **What do you want to achieve today? (in the above context) – Larry Quick**  
Based on the program & objectives, participants reflect and share what they would like to achieve through this forum.
- 9:05 am      **Creating a shared understanding of conditions**  
To be able to determine potential directions for flood disaster mitigation in the Valley, it is essential that we create, with the group, a shared understanding



of the range of key flood disaster related, immediate and emergent conditions that the Valley's stakeholder groups will or may face. This will be created through speakers providing a 3 minute overview of what they believe the key conditions are from their perspective and area of expertise. Following the speakers the wider group will add to this context with their personal views.

#### Presenters

1. Disaster 21<sup>st</sup> Century: a global perspective – Larry Quick
2. Disaster response systems in the 21<sup>st</sup> Century – from planning to dynamic design & adaptive response – John Rannenberg, Mission Innovation, Raytheon
3. Visualization of the 100-year flood – Kelly Knee, Water Resource Engineer, Applied Science Associates
4. The impact of the floods – social, economic, ecological, cultural and built environment – Veronica Cadoppi, Tourism Planner, BVTC
5. Trends in weather conditions and weather and river forecasting - David Vallee, Science and Operations Officer, and Nicole Belk, Hydrologist, National Weather Service & Northeast River Forecast Center
6. Business perspective – Cheryl Merchant, CEO, Hope Global
7. Organizational Disaster Mitigation - Lori Adamo, Code Red, President
8. What should we expect from government in the future? - Robert Warren, Executive Director, RIEMA and Cristine McCombs, Executive Director, MEMA

*Obtain  
Copy*

10:00 am **Group discussion** – (Work in small groups & report out - capture on computer & on boards)

1. What Disaster Mitigation (DM) capability does the Blackstone require?
  - a. What was missing during the flood?
  - b. What was possible in October 2005?
  - c. Where is that capability – or does it need building?
2. What conditions do we need more information about?
3. What are we going to do to identify and create the desired DM capability?
4. Where do we start?

11:45 am **Closing remarks: what have we learned?** – John Gregory and Robert Billington

11:55 am **Blackstone Partnership?** – Larry Quick

12:00 pm **Adjournment**

**Room:** Table in a U shape, podium, laptop, screen and a projector available – preferably presenters will be requested to bring a CD or a jump drive.

### **Potential Flood DM Capability**

Below is a very short list of some high level disaster mitigation capability that you might consider important. What we would also like you to consider is what capability is critical from your perspective?

- Local DM control through a BV network platform
- Disaster Management Capability Framework
- Systems level design – integrated platform for all key DM systems - communication, information, education, production, and trading transactions. Applied to ecological (water, fire etc), economic (business access and maintenance), built environment (jetties, roads, dams etc)
- Response adaptation – based on what conditions, who does what and when
- Redundancy – back up systems
- Conditions monitoring – weather etc
- Simulation and practice – don't wait for another flood to bring the DM capability up to standard

# **Better Storm Water Management:** **Mitigating Flood Impacts in the Blackstone River Valley**

January 26<sup>th</sup>, 2006: 9:00 a.m. – 1:00 p.m.  
Blackstone Public Library  
86 Main Street, Blackstone, MA

- 9:00      **Coffee/Refreshments**
- 9:15      **Welcome/Overview**  
            *Wasn't It A Mighty Storm! A teachable moment to improve  
            Storm water management in the Blackstone River Valley*
- 9:45      **Two Case Studies from Blackstone Valley Communities**  
            *What worked and what didn't*  
            —Joseph Buckley, Asst. Director of Sewer Operations, Worcester DPW  
            —N. Kim Wiegand, P.E., Town Engineer, Lincoln, RI
- 10:15     **Break**
- 10:30     **"Tools" to Reduce Storm Water Impacts in the Blackstone Valley**
1. **Infiltrate More: Low Impact Development (LID) Strategies**  
                —Richard Claytor, Jr. P.E., Principal, Horsley Witten Group  
                    1. Basics of "hydrologic health"  
                    2. Problems with conventional development patterns  
                    3. Elements of innovative site design  
                    4. Storm water Best Management Practices (BMPs)
2. **Reduce Development Footprint: Open Space Residential Design  
                (OSRD)/Conservation Development**  
                —Andrea Cooper, Smart Growth Coordinator, Office of Coastal Zone Management,  
                MA EOEA
3. **Develop Bylaws/Ordinances**  
                —Nathan Kelly, AICP, Project Manager, Horsley Witten Group
- 11:30     **Q & A and Discussion**
- 11:45     **Model Project: Save The Bay Center, Field's Point**  
            —Omay Elphick, Policy Specialist, Save The Bay
- 12:00     **Lunch**  
            **Making It All Work: EPA Phase II Storm Water Management Permits  
            in the Valley**  
            —Christopher D'Ovidio, Conservation Law Foundation
- 12:45     **Next Steps – Bringing The Message Home**  
            *Effective outreach to communities*

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## **Thank You to our Conference Sponsors:**

*John H. Chafee Blackstone River Valley National Heritage Corridor Commission,  
Horsley Witten Group, Upper Blackstone Water Pollution Abatement District, MassAudubon,  
Massachusetts Environmental Trust & French Foundation*

## The Blackstone River Coalition

The Blackstone River

Coalition is a partnership

of numerous organizations,

businesses, municipalities,

agencies and individuals

working to restore the

Blackstone River and to

improve the health of the

Blackstone River watershed.



The Blackstone River Coalition (BRC) is a bi-state organization whose mission is to restore and protect water quality and wildlife habitat in the river corridor, and to advocate for sound land use in the Blackstone River Watershed. As a partnership of member organizations, the BRC seeks to enhance the communication, efficiency, and interaction among community stakeholders, state agencies, and federal agencies as we work together to achieve our mission.

In order to marshal the resources to actually clean up the Blackstone River, the BRC launched, in 2003, the **Campaign for a Fishable/Swimmable Blackstone River by 2015**. To achieve this ambitious goal, the Campaign focuses on many issues including: Storm Water Management, Education and Outreach, Land Uses in the Blackstone River Valley, Wastewater Treatment Plants, Streamflow, & Recreational Opportunities along the Blackstone River.

For more information on the BRC's activities, please visit our website at [www.zaptheblackstone.org](http://www.zaptheblackstone.org) or send requests to PO Box 70477, Worcester, MA 01607. Or, contact Karen Mateleska at (508) 793-3726 or Donna Williams at (508) 753-6087 x18.

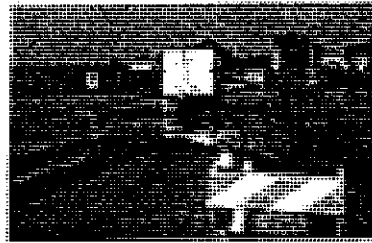


University of Rhode Island  
Transportation Center



*We Put Safety First*

# ROAD DRAINAGE



Friday, February 10, 2006  
8:00 am - 3:00 pm

Have you ever wondered?

- What are the four basic features of roadway drainage?
- What is the desired pitch for good drainage off a paved surface?
- What are the four basic steps for properly installing a culvert pipe?
- What is the desired amount of cover over a culvert?

You'll find the answers and more when you take this *Road Drainage Workshop*.

Who should attend:

This workshop is intended for municipal employees, particularly those involved in roadwork and public works. Emphasis will be on non-technical, practical applications. All municipal employees are invited to attend.

**W. Alton Jones Conference Center**  
**Laurel Lodge**  
**WEST GREENWICH, RI**

Rhode Island T2 Center  
URI Transportation Center



University of Rhode Island  
Transportation Center



We Put Safety First

**Topics to be discussed:**

- The extent of drainage problems
- Earth materials and subsurface water (properties)
- Earth materials and subsurface water (effects)
- Subsurface drains: what they do and don't do
- Cross section elements: purpose and maintenance techniques
- Legal duties and procedures with regard to drainage
- Culvert maintenance, inspection, and installation
- Ditches: purposes and maintenance
- Erosion and slopes

**Instructor:** David Orr, P.E., is the Technical Assistance Engineer for the Cornell Local Roads Program. He is a licensed professional engineer in New York State.

**Enrollment limited to 30 people. Sign up now!!**

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**Registration Form**

**ROAD DRAINAGE**

**Friday, February 10, 2006**

**8:00 am – 3:00 pm**

**Name:** \_\_\_\_\_

**Municipality:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_

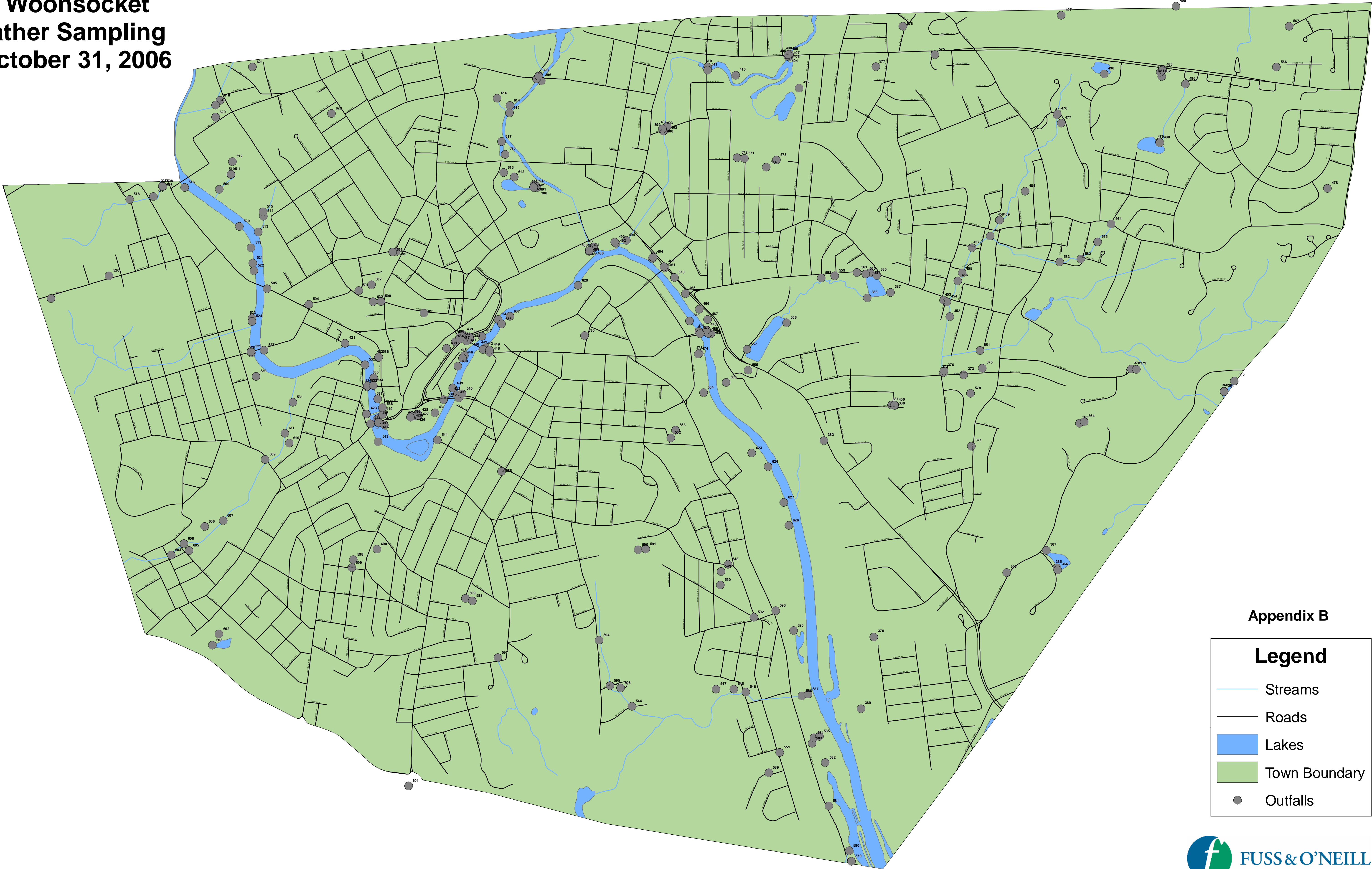
**Phone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Fax (401-874-2297), phone 874-7075, e-mail ([toryp@mail.uri.edu](mailto:toryp@mail.uri.edu)), or mail registration form to Tory Perrotta, URI Transportation Center, Carlotti Adm. Bldg, 75 Lower College Road, Kingston, RI 02881**

**Rhode Island T2 Center  
URI Transportation Center**



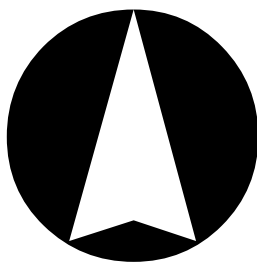
City of Woonsocket  
Dry Weather Sampling  
July 1-October 31, 2006



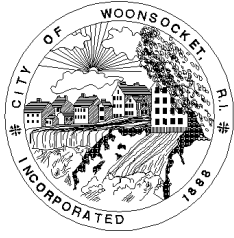
Appendix B

Legend

- Streams
- Roads
- Lakes
- Town Boundary
- Outfalls



0 0.25 0.5 1 Miles



CITY OF WOONSOCKET  
DEPARTMENT OF PUBLIC WORKS  
HIGHWAY DIVISION

CATCH BASIN CLEANING PROGRAM



Purpose:

The Highway Division annually conducts a citywide catch basin preventative maintenance program, to reduce street flooding and minimize nuisance odors.

Catch basins are cleaned throughout the city based on a grid system. Priority work is scheduled based upon sediment accumulation rates, identified areas prone to flooding and customer complaints.

What will be done:

A clamshell bucket truck is used to remove sediment and debris that has built up in the catch basins. Basins with an obstructed outlet pipe or strong odor will be scheduled for a follow-up flushing and rodding to clear any stoppage in the outlet pipe. In addition, repairs to masonry, brickwork and casting will be completed as needed.



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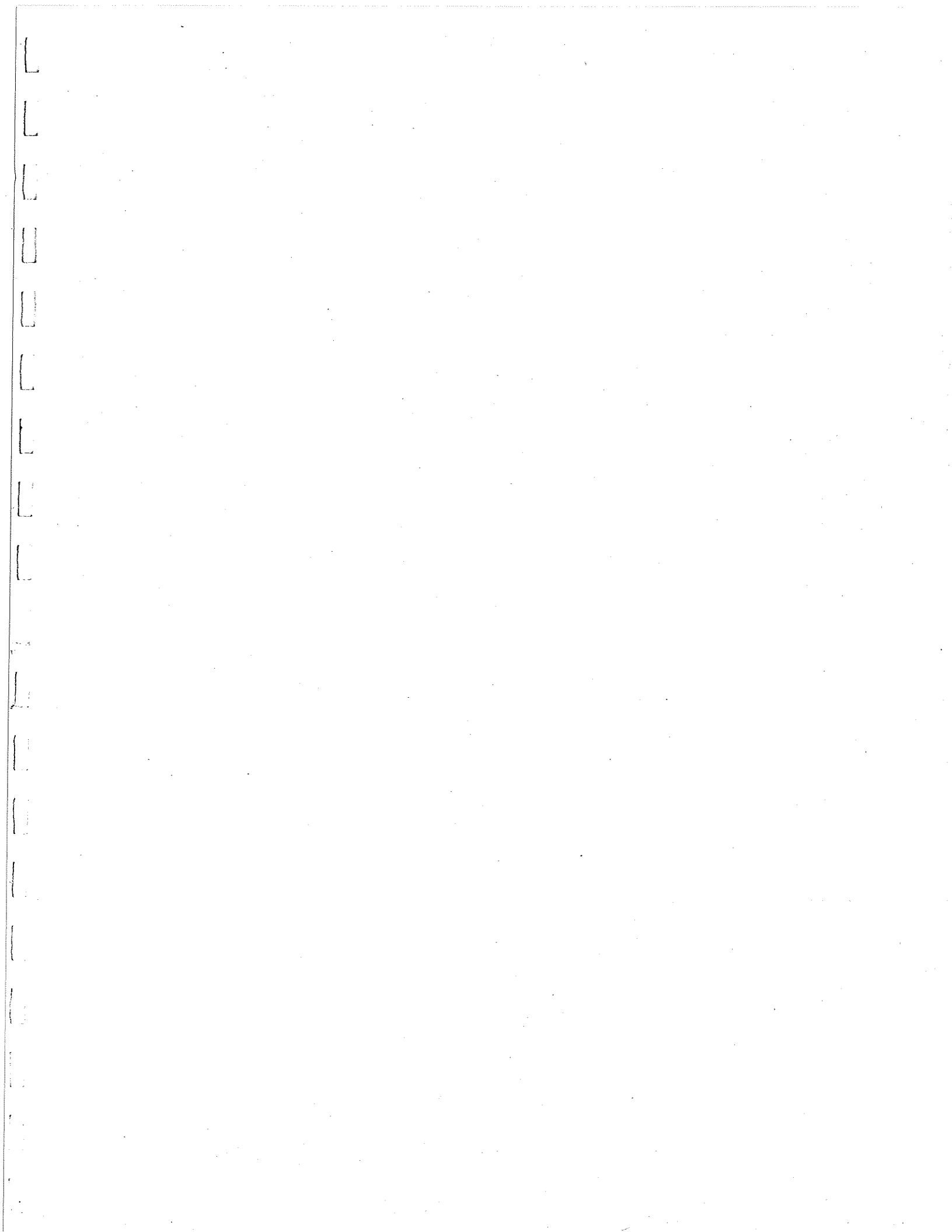
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Site Plan	Bernon St (230), Map ...	Thu 12/7/20...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Andrews Survey	Building Permit Plan	Bertenshaw Road, P30...	Thu 1/26/20...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Administrative Subdivision	Cass Avenue, Map C5,...	Wed 12/28/...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Administrative Subdivision	Clinton & Cumberland ...	Wed 1/4/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Caito Corp	Plot Plan	Daniell Dr., Map G6, L...	Mon 3/13/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Caito Corp	Plot Plan	Danielle Dr., Map G6, ...	Mon 6/12/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Land Surveyors	Street Acceptance Plan	Eleventh Ave	Thu 12/21/2...	None	AB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Paul Gadoury	Building Permit Plan	Ella Ave, Map 39C, Lot...	Mon 9/18/2...	None	St. File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Existing Conditions and S...	Front St Map D4 Lot 1...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Plan & Profile	Fugere Street, Map F5...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hudson Place Assoc	Site Plan	Gauthier Ave, P33, L29	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Site Plan	Gauthier Dr, Map G5, ...	Fri 9/1/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	International Mapping	Building Permit Plan	Gauthier Drive, Lot 13	None	None	High Hawk File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	International Mapping	Building Permit Plan	Gauthier Drive, Lot 14	None	None	High Hawk File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	International Mapping	Building Permit Plan	Gauthier Drive, Lot 15	Fri 5/19/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	International Mapping	Building Permit Plan	Gauthier Drive, Lot 16	None	None	High Hawk File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Proposed Site Plan	Grange Ave, Map B6, ...	None	None	St file/legislation submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Administrative Subdivision	Halsey Rd., Map B7, L...	Thu 9/7/2006	None	St. File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Ocean State Planners	Site Plan	Hawthorn Circle, AP34...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hudson Place Assoc	Wanda Ave Drainage Ext...	High Hawk	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	O'Hearne Associates	Site Plans	Hope Street	Tue 11/22/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Proposed Administrati...	Jillson Ave Map F4, ...	Tue 11/15...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Building Permit Plan	Jillson Ave, Lot 30-49	Wed 3/8/2006	None	St File
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Site Plan	Jillson Ave, P 24, L...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	RC Courmoyer	Site plan	McArthur Road, Plat 5...	Mon 4/10/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg Associates	Proposed site plan	Morton Ave, Map D4, ...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Minor Subdivision Plan	Nursery Ave, Map C6, ...	Tue 12/6/2005	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Caito Corporation	Phase I	Oak Grove Extension, ...	Mon 9/26/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Caito Corporation	Prelim/Final Subdivision P...	Oak Grove Extension, ...	Wed 8/3/2005	None	File binder
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Minor Subdivision	Orchard St, Map F2, L...	Mon 6/12/2...	None	St. File
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Building Permit Plan	Orchard Street, Map F...	Fri 3/3/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg Assoc.	Proposed Site Plan	Orchard Street, Map F...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Proposed Site Plan	Orchard Street, Map F...	Wed 3/29/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Crossman Engineering	Building Permit Plan	Park East Dr, AP D7 & ...	None	None	St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Crossman Engineering	Site Plans	Park East Drive, AP D7...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Foster Survey	Administrative Subdivision	Park East Drive, Map ...	Mon 5/1/2006	None	St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Proposed Site Plan	Pelletier Ave, Map F2, ...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Andrews Survey	Building Permit Plan	Progresso Ave, Map B...	Tue 6/27/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sugrue & Assoc	Site Plan	River St, Plat 14, Lot 64	Mon 4/17/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	RGK Consultants	Plot Plan	Roberta Ave, AP 4 Lot...	Thu 3/30/20...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	RGK Consultants	Plot Plan	Roberta Ave, Hse2, AP...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Minor Subdivision	Ronian Street, Map E4...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Site Plan	Scotia Street, Map C2,...	Wed 1/18/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	VHB	Administrative Subdiv...	Singleton Street, A...	Wed 6/15/...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	JCE	Utility Plan	Social St - 685, Map B...	None	None	At the Dir
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Site Plan	St. Anne's Apts., Map ...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	David Garrigan	Plot Plan	Stephens Way, AP 50 ...	Mon 6/19/2...	None	St. File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Land Surveyors	Administrative Subdivision	Tenth Ave Map D1 lots...	Tue 11/15/2...	None	St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Proposed Development - ...	Tenth Avenue, Map D1...	None	None	St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Proposed Development-MS	Tenth Avenue, Map D1...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Building Permit Plan	Tenth Avenue, Map D1...	Tue 1/31/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Minor Subdivision	Theresa Street, Mao c...	Thu 8/4/2005	None	Street file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	JCE	Utility Plan	Theresa Street, Map C...	Wed 6/29/2...	None	Street file

*COMPLETED**Page 2 of 2*

<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUBMITTED BY	PLAN TITLE	LOCATION	SUBMIT...	ACCEPT...	DESTINATION OF ...
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Building Permit Plan	Villa Nova St, Map D4,...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Caito Corp	Plan and Profile	Vivian St & Fieldside D...	None	None	Oak Grove File
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wilson Assoc.	Proposed Site Plan	Wilcox St, Lot 119	Fri 5/26/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Administrative Subdivsion	Wilcox St/Ruth St, Ma...	Tue 9/5/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Proposed Site Plan	Wilcox Street, Map B3,...	None	None	St file

PENDING

<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUBMITTED BY	PLAN TITLE	LOCATION	SUBMIT...	ACCEPT...	DESTINATION OF ...
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	Andrews Survey	Building Permit Plan	Rhode Island Ave, AM ...	Wed 5/24/2...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	BETA Group	Northeast Street Mill Red...	Northeast St Map D3 I...	Thu 11/30/2...	None	ST File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bibeault & Florentz	Plot Plan	Gauthier Dr, Map G5, ...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Caito Corp	Building Permit Plan	Lot 11 Oak Grove	Mon 6/12/2...	None	St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Caito Corp	Plot Plan	Louise St, Map G6, Lot...	Mon 3/13/2...	None	St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Caito Corp.	Plot Plan	Vivian Street, Map G6,...	Wed 7/19/2...	None	St, File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cataldo Assoc.	Existing Conditions Plan	Broadway, AP25, Lots ...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cataldo Associates	Administrative Subdivision	Elm St & Gaulin Ave, ...	Wed 6/28/2...	None	st file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Commonwealth Eng	Minor Subdivision	Congress St, AP 49, L...	Mon 7/3/2006	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Commonwealth Engineering	Pre-application plan	Holly Springs, D7, Lot ...	None	None	Project On Hold - St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Commonwealth Engineers	Minor Subdivision	Cumberland Hill Rd, M...	Mon 11/27/...	None	Mohamad (revisions w/AB)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Commonwelath Eng	Existing Conditions	Hamlet Heights	Thu 11/30/2...	None	Lawrence
<input checked="" type="checkbox"/>	<input type="checkbox"/>	David Garrigan	Utility Plan Lot 14-201 Ti...	Cato Street, Map D3, ...	Wed 11/15/...	None	AB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	David Garrigan	Minor Subdivision	St. Cecile Ave, Map B5...	Thu 9/7/2006	None	AB
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	David Garrigan	Administrative Subdivision	Cato St, Map D3, Lots ...	Thu 7/13/20...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	DiPrete Engineering	Preliminary Submission	Bernon Street AP 29 L...	None	None	St File
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	Heritage Design Group	Administrative subdivision	Singleton St, AP7, Lot ...	Mon 8/21/2...	None	AB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hudson Place	Grading & Sub-Drainage	Trinity Village, Lots 4-9	None	None	File under High Hawk
<input checked="" type="checkbox"/>	<input type="checkbox"/>	International Mapping	Building Permit Plan	Gauthier Ave, Lot 7	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	International Mapping	Building Plan	Gauthier Drive, Lot 18...	Thu 5/11/20...	None	AB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	International Mapping	Building Permit Plan	Gauthier Drive, Lot 19...	Fri 5/12/2006	None	AB
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	JCE	Site Plans	Clinton (603) & Cumb...	Tue 6/27/2006	None	AB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	JCE	Site Plan	Front St, Bernon Mills ...	Tue 7/11/2006	None	AB's Inbox
<input checked="" type="checkbox"/>	<input type="checkbox"/>	JCE		... Merrill Court, AP17, Lo...	Thu 1/26/20...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maguire Group	CVS North parking lot	Park East Drive	None	None	AB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Administrative Subdivision	Diamond Hill Rd, Map ...	Wed 9/13/2...	None	AB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Proposed Site Plan	Orchard St, Map G5, L...	Tue 10/3/2006	None	MFD
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marc Nyberg	Amended Subdivision Plan	Jillson Ave, Map F4, L...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Grid	URD 644-101	Oak Grove Ext - Phase I	None	None	St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Land Surveyors	Administrative Subdivision	230 Bernon St/Map D...	Mon 11/20/...	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Land Surveyors	Minor Subdivision	Park East Dr Map E7 L...	Wed 12/6/2...	None	Scottie
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Minor Subdivision	Spring St, Map C3, Lot...	Mon 10/23/...	None	St. File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors	Proposed Conditions	Founders Drive, Map F...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Surveyors/JCE	Existing & Proposed Plan	Wilcox St, Map B6, Lot...	Fri 8/25/2006	None	MFD plan holder
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRC Assoc.	Building Permit Plan	Fountain St, Map D3, ...	Fri 5/19/2006	None	St file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Schuete Survey	Administrative Subdivision	Dunlap Street, AP 47, ...	None	None	St File
<input checked="" type="checkbox"/>	<input type="checkbox"/>	VHB	Blackstone River Bikeway ...	Landfill to Davison Ave	None	None	AB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	VHB	Blackstone River Bikeway	Water Treatment to D...	None	None	AB



### Why be concerned?

Homeowners' Associations and business owners are entirely responsible for maintaining their detention basins. Detention basins require maintenance to ensure that they function properly. Poorly maintained basins, regardless of their design, lose their ability both to control flooding on private property and prevent pollution like sediments, fertilizers and pesticides from entering the creeks and streams near homes and businesses.

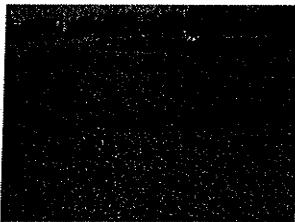
Detention basins are typically located where new residential, commercial, and industrial centers are developed. New development replaces open land and forest with impervious surfaces such as parking lots, roads, and roof tops. As stormwater runs off these impervious surfaces it enters streams and rivers at a much faster rate, causing streambank erosion and possible flooding downstream. Detention basins help control potential flooding and improve water quality.



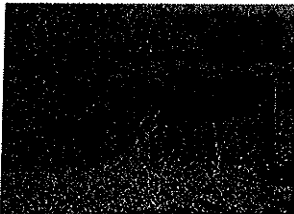
## Are There Different Types of Detention Basins?

Yes, in general there are three types of detention basins:

- Dry Detention Basins
- Wet Detention Basins
- Stormwater Marsh Basins



Dry detention basins are typically dry depressions except after a major rain storm when they temporarily fill with stormwater. These basins slow the rate at which stormwater from a new development enters stream and rivers and thus help prevent flooding; however, dry detention basins are not very effective at removing pollutants because the stormwater from smaller storms passes through more quickly. Smaller storms (with less rain) contain higher amounts of pollutants than larger storms. The side slopes of these basins are generally vegetated with short, turf grass.



Like dry detention basins, wet detention basins also help control flooding, but they are more effective at removing pollutants from stormwater. Wet detention basins typically have a permanent pool of water and more wetland plant life. The permanent pool of water allows pollutants such as sediments to settle to the bottom of the basin. In addition, the wetland vegetation helps filter out pollutants and uses others up as fertilizers as the stormwater passes through the basin.

Stormwater marsh basins are similar to wet detention basins, but contain more wetland plants such as cattails, bulrush, and sedges. The wetland vegetation absorbs fertilizers that run off neighboring lawns and filters out other pollutants, which otherwise might enter nearby creeks and streams. They also provide fish and wildlife habitat.

The ideal detention basin provides the greatest number of benefits including flood control and water quality improvements. This typically consists of wet detention basin combined with a stormwater marsh basin.

# What Type of Maintenance is required?

Detention basins require inspection and maintenance to ensure that they are functioning properly to protect private property and improve water quality. At a minimum, the Homeowners' Association or business owner should conduct an annual inspection and an inspection after major storms.

## Obtain a Copy of Your Detention Basin Plan

Obtain a copy of the detention basin plan from the Engineering Division to determine what type of detention basin is in your development.

### Inspect Inlet and Outlet Pipes

**Inlet Pipes** direct stormwater from developments into detention basins, including stormwater from residential yards, driveways and roads. Typically there are two to three inlet pipes in a detention basin.

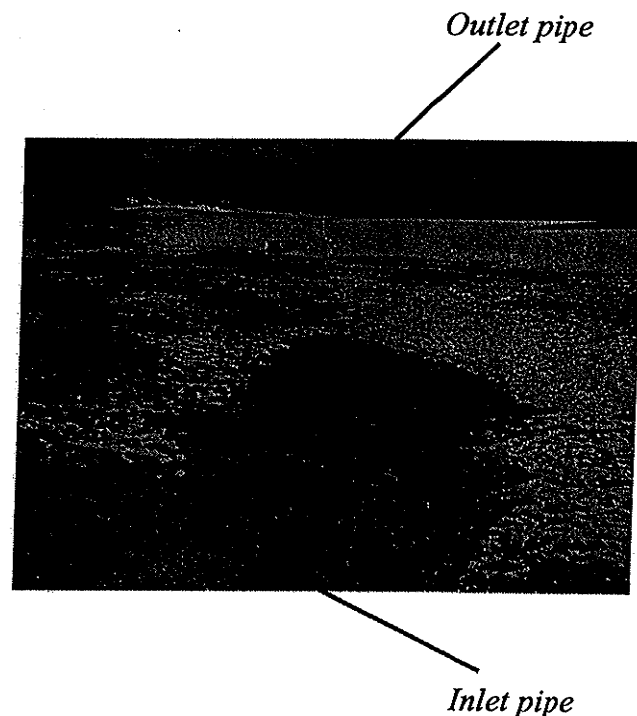
**Outlet Pipes** direct stormwater from a detention basin to a nearby creek or stream. Typically there is only one outlet associated with a basin. The outlet may consist of a single pipe, a riser pipe or structure.

Check the following:

**Structural integrity** – Inspect the pipe to make sure it isn't crumbling or broken.

**Rip Rap** – Rip Rap (typically pieces of stone) is placed around the pipe where it enters the basin to prevent erosion. Check for erosion around the pipe or missing rip rap.

**Obstructions** – Inspect the pipe end to determine if sediment, dirt, or debris is obstructing the flow of water from the pipe into the basin. Minor amounts of sediment around pipe openings can be removed with a shovel and wheelbarrow, spread evenly on upland areas and seeded with turf grass.

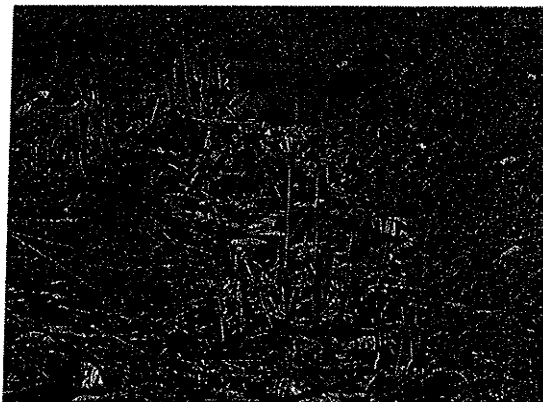


If any problems are occurring or if you have questions, contact the Engineering Division for assistance.

(401) 767-9216

## **Inspect for Litter and Debris**

Twice each year (spring and fall) and after a major storm, check for debris near the inlets and in the basin. Remove and dispose of debris or litter with household trash.



*Outlet Pipe choked with debris and trash*

## **Examine the Side Slopes for Erosion**

Twice a year (spring and fall) and after a major storm, check for gullies or sloughing of the banks and other disturbances for animals or vehicles. Any damage observed should be repaired immediately by filling any eroded areas with topsoil and seeding with turf grass. It is also important to place mulch or straw over the seed to prevent it from being washed into the basin.

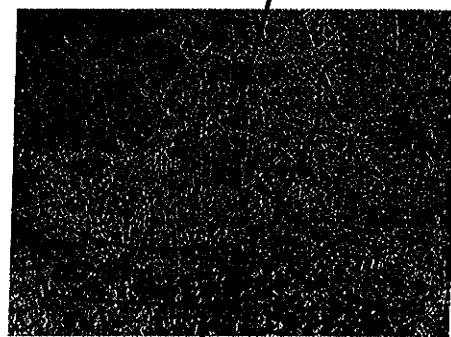
## **Inspect Vegetation**

In the spring and fall, inspect the vegetation on the banks and in the basin. Maintenance activities will vary depending on the type of basin.

Repair bare spots, from vegetation control, along bank with turf grass seed, meadow grass or wildflowers.

Meadow grasses and wildflowers grown along banks of the detention basin will reduce long-term landscape maintenance.

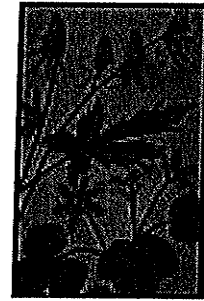
*Outlet Structure*



*Thick vegetation*

## **Mowing**

The amount of mowing required depends on the type of detention basin and the desired appearance. Typically, basins with turf grass only need to be mowed once or twice a year. Basins with native grass or wildflowers should be mowed only once a year in late fall or early spring.



## **Adding Vegetation to the Banks**

You can add more color and visual interest, as well as improve bird habitat by planting a variety of shrubs and wildflowers along the banks of detention basins. Shrubs such as redosier dogwood, silky dogwood, meadowsweet, common elder, buttonbush and highbrush-cranberry typically grow well where the ground is damp. Wildflowers like swamp milkweed, joe-pye-weed, cardinal flower, beggartick, marsh blazing star, aster and goldenrod are good choices for damp areas.

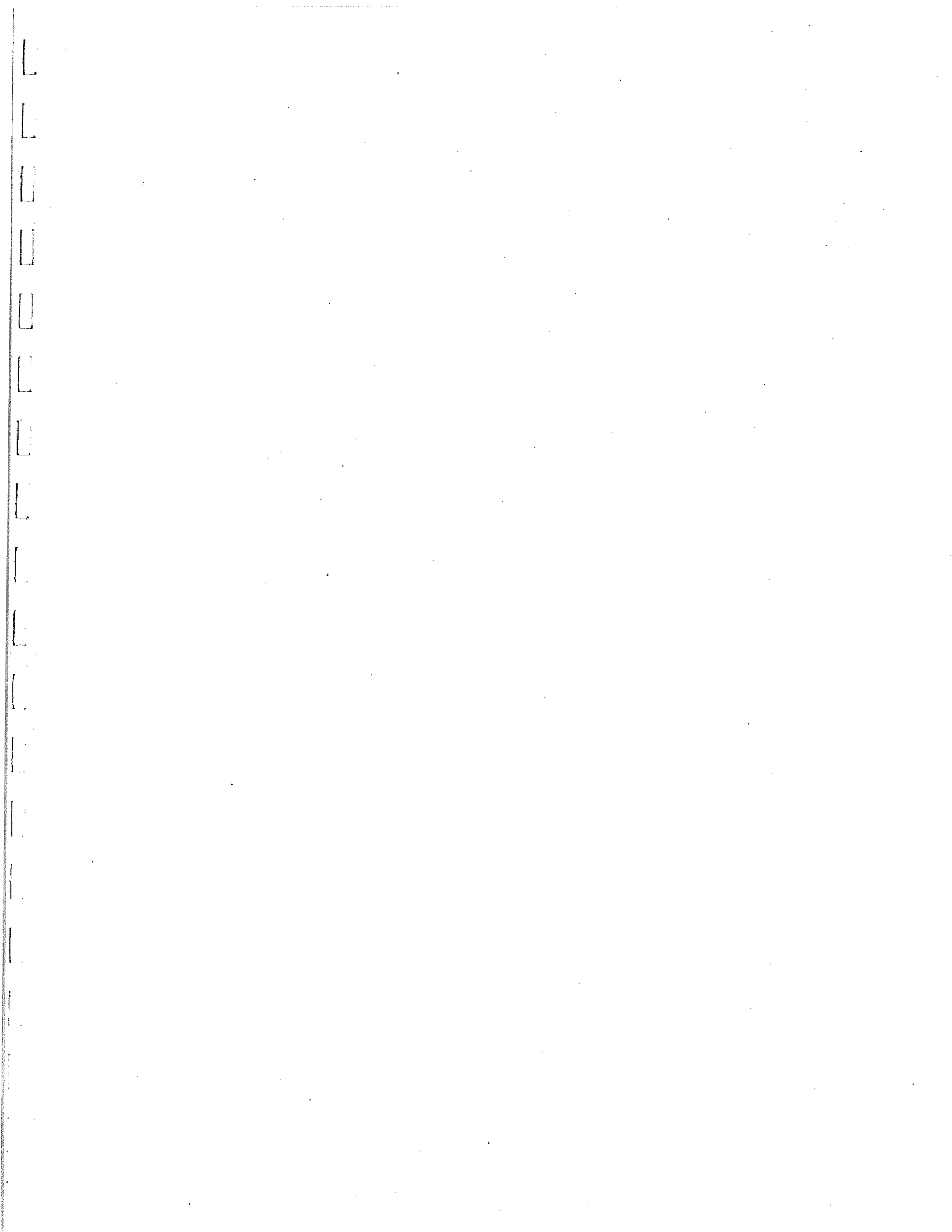
## **Record Keeping**

Keep records of all inspections including date, name of inspector, what was observed, and maintenance activities performed.

Keep records of all cost for inspections, such as consulting with professional engineers, and repair cost. Good records will help you make adjustments to the maintenance program as needed







**City of Woonsocket  
Department of Public Work  
Engineering Division**

<u>Location</u>	<u>Origination</u>	<u>Grid</u>
Huntington Ave	Blackstone Mass	A-2
North Main St	Blackstone Mass	A-3
Rathbun St	Blackstone Mass	A-5
Diamond Hill Road and Roland St	RI State Road	A-5
Diamond Hill Road and Salisbury St	RI State Road	A-5
Diamond Hill Road and Fulton St	RI State Road	A-6
Diamond Hill Road into Peters River	RI State Road	A-6
Diamond Hill Road and Atlanta St	RI State Road	A-6
Mendon Rd and Wilcox	RI State Road	A-7
Open Brook between Elizabeth and Graves	N.Smithfield RI	B-1
Keough ST	N.Smithfield RI	B-1
Mendon Rd to Hoover St and Papineau Ave	RI State Road	B-7
Mendon Rd and Cass Ave	RI State Road	C-7
Mendon Rd and Theresa St	RI State Road	C-7
Mendon Rd and Lambert Ave	RI State Road	C-7
Bound Rd and E Ballou MH Rd	Cumberland RI	C-9
Cumberland Hill Rd at Newland Ave	RI State Road	D-5
Manville Rd at Willow St	RI State Road	D-5
Manville Rd at Bernon St	RI State Road	D-5
Manville Rd at Carrington Rd	RI State Road	D-5
Manville Rd to Hamlet Ave	RI State Road	D-5
Cumberland Hill Rd and Alysworth Ave	RI State Road	D-6
Cumberland Hill Rd and Cady St	RI State Road	D-6
Cumberland Hill Rd and Congress	RI State Road	D-6
Mendon Rd and Bartlett St	RI State Road	D-7
Mendon Rd and Corsi St	RI State Road	D-7
Mendon Rd and Olympia	RI State Road	D-7
Mendon Rd and Manila Ave	RI State Road	D-7
Mendon Rd and Oregon Ave	RI State Road	D-7
Mendon Rd and Iron Rock Brook	RI State Road	D-7
Morse Ave to Alice Ave	N.Smithfield RI	E-1
Pond in N.Smithfield to Pelletier Ave	N.Smithfield RI	E-1
Manville Rd and Simon St	RI State Road	E-5
Manville Rd and Verdun St	RI State Road	E-5
Manville Rd and Circle St	RI State Road	E-5
Cumberland Hill Rd to ST Augustine St	RI State Road	E-6
Mendon Rd and Virginia Ave	RI State Road	E-7
Manville Rd at Bertenshaw Rd to Blackstone River	RI State Road	F-5
Mendon Rd at Cumberland Hill Rd To Blackstone River	RI State Road	F-6
Cumberland Hill Rd and Founders Drive	RI State Road	F-6
24"pipe from Hospital System to Founders Drive	N.Smithfield RI	G-3
Manville Rd at Bluestone Dr	RI State Road	G-5
Manville Rd at Carrington Rd	RI State Road	G-5
Manville Rd at Gadoury Blvd	RI State Road	G-5
Manville Rd at N. Smithfield line	RI State Road	H-5
Open brook from N. Smithfield at Blue Stone Dr	N.Smithfield RI	H-5

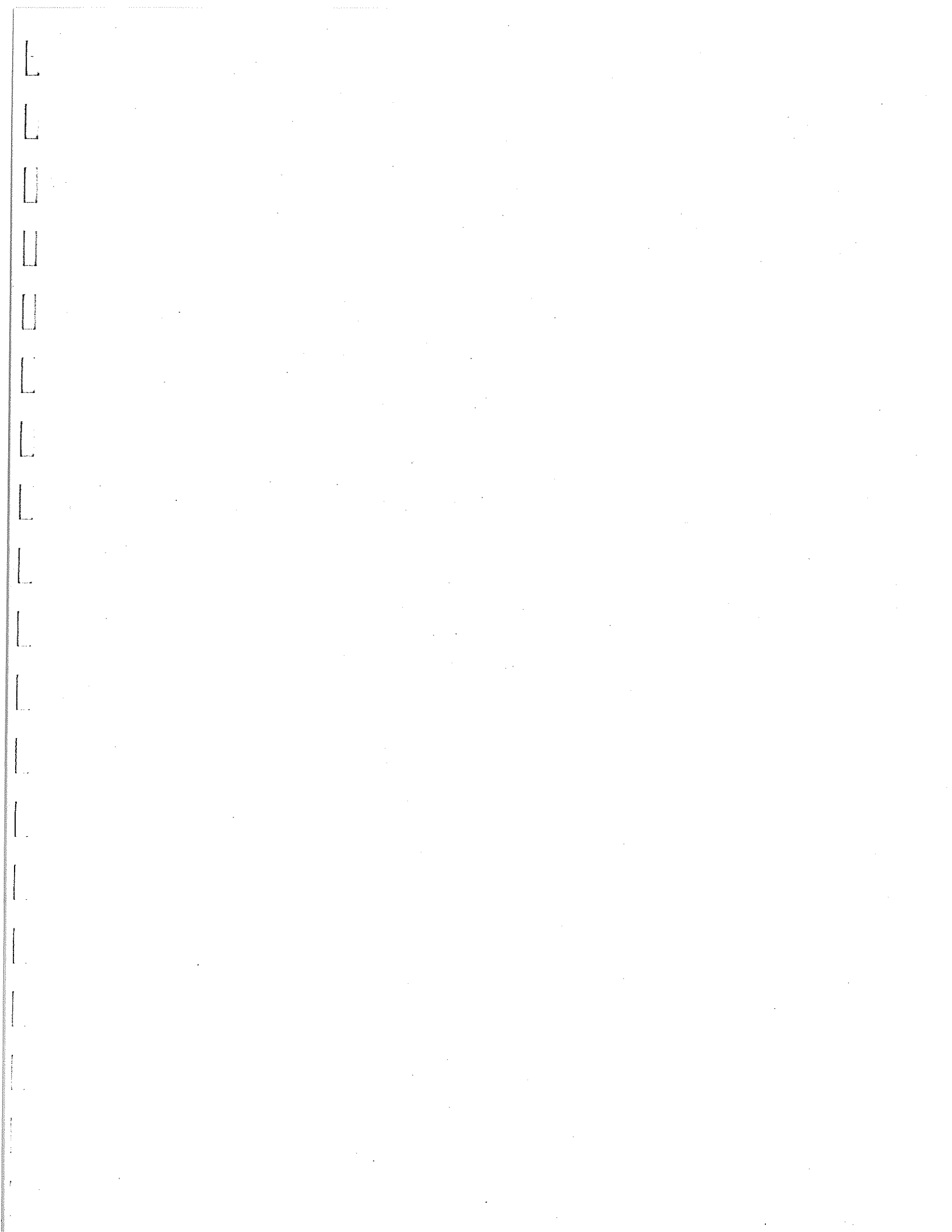


## CITY OF WOONSOCKET

## DEPARTMENT OF PUBLIC WORKS

## ENGINEERING DIVISION

<u>LOCATION</u>	<u>OWNER</u>	<u>MAP</u>	<u>LOT</u>
PARK EAST DR / CVS DRIVE	CITY OF WOONSOCKET	F7	56-15
WALMART	WALMART STORES 702 SOUTHWEST 8TH STREET BENTONVILLE AR 72716	B7	52-6
LOWES	114 DIAMOND HILL RD II LLC 1 PROVIDENCE WASHINGTON PLACE 9TH FLOOR PROVIDENCE RI 02903	B7	52-20
BROOKHEAVEN POND	DONNA JEAN 1305 BROOKHAVEN LANE WOONSOCKET RI 02895	C8	58-31
BROOKHEAVEN POND	DONNA JEAN 1305 BROOKHAVEN LANE WOONSOCKET RI 02895	C8	58-31
TARA LANE/ LEDGEWOOD DR.	CITY OF WOONSOCKET	C7	58-37
EAST WOONSOCKET	CITY OF WOONSOCKET	B7	57-88
HOLLY SPRINGS	WILFRED DESROSIERS 306 HOLLY LANE WOONSOCKET RI 02895	D7	55-203
OREGON AVE	CITY OF WOONSOCKET	D7	59-2
DIAMONDHILL RD	CITY OF WOONSOCKET	B7	53-5
ROBINSON STREET POTHIER SCHOOL	CITY OF WOONSOCKET	C5	36-136
PARK DRIVE & HARTFORD AVE	OAKLAND GROVE ASSOCIATES 560 CUMBERLAND HILL RD WOONSOCKET RI 02895	E6	41-29
1026 PARK EAST DRIVE	UNICOM INCORPORATED 1026 PARK EAST DRIVE WOONSOCKET, RI 02895 (401) 765-3000	D7	59-13
300 PARK EAST DRIVE	TECHNIC, INC 300 PARK EAST DRIVE WOONSOCKET, RI 02895	E6	50-51
500 PARK EAST DRIVE	RI INDUSTRIAL FACILITIES CORP 500 PARK EAST DRIVE WOONSOCKET, RI	E7	50-211
1 CVS DRIVE	CVS 1 CVS DRIVE WOONSOCKET, RI	F7	51-2
811 PARK EAST DRIVE	RETAIL GRAPHICS 811 PARK EAST DRIVE WOONSOCKET, RI 02895	E7	56-6
<u>SILTATION CHAMBER</u>			
89/100 MARAIN LANE	CITY OF WOONSOCKET	G5	31-68/69
943 RIVER STREET HIGHWAY DIVISION	CITY OF WOONSOCKET	C2	7-33





**RHODE ISLAND DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**  
Office of Water Resources

DEM USE ONLY

Date Received \_\_\_\_\_

**RI POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES)  
AMENDMENT TO THE STORM WATER MANAGEMENT  
PROGRAM PLAN (SWMPP)**

STORM WATER GENERAL PERMIT FOR SMALL MUNICIPAL  
SEPARATE STORM SEWER SYSTEMS AND INDUSTRIAL ACTIVITY  
AT ELIGIBLE FACILITIES OPERATED BY REGULATED SMALL MS4s  
(Issued 12/2003)

RIPDES Permit #RIR040 0016

NAME OF MS4 CITY OF WARRSCKET

**COMMITMENT FORM  
COOPERATIVE AGREEMENT WITH URI TO PARTICIPATE IN  
THE STORM WATER EDUCATION AND OUTREACH PROGRAM**

This amendment constitutes a cooperative agreement (as per Part IV.A.2) on the part of the regulated MS4 to allow another entity (URI) to share in the implementation of one or more minimum measures.

Please be aware that if you choose to participate in this effort to meet your permit requirements, you must sign this Commitment Form/Cooperative Agreement with URI. However, ultimately, the Operator shall remain responsible for permit compliance and implementation of the minimum measures.

Should you choose NOT to participate in the Program, be aware that upon receipt of the Year 3 (2006) Annual Report, RIDEM will be reviewing all SWMPPs for compliance with the permit requirements for Minimum Measures 1 & 2.

Please sign and mail this completed form to RIDEM along with the Year 3 (2006) Annual Report by March 10, 2007 whether you choose to participate in the Program or not.

**AGREEMENT TO PARTICIPATE IN THE PROGRAM - PLEASE CHECK ONE.**



Yes, we would like to participate in the Storm Water Education and Outreach Program.



No, thanks. We will plan to meet the education and outreach requirements on our own.

I certify under penalty of law that this document and all attachments were prepared under the 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, I certify that 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.

Print Name

Alan Budd, PE

Print Title

City Engineer

Signature\*

Alan Budd

Date 3/2/07

\*State and federal regulations require this application to be signed as follows (RIPDES Rule 12): For a Municipality, State, Federal or other public site: by either a principal executive officer or ranking elected official.

# COORDINATOR OF STORM WATER MANAGEMENT PROGRAM

Contact Person: <i>Alan Brodd</i>	Title: <i>City Engineer</i>		
Office/Dept.: <i>Engineering Division</i>			
Mailing Address: <i>169 Main St</i>			
City: <i>Woonsocket</i>	State: <i>RI</i>	Zip: <i>02895</i>	Phone: <i>(401) 767-9213</i>
Fax: <i>(401) 768-8712</i>	E-mail address: <i>ABrodd@woonsocketri.org</i>		

## REPRESENTATIVE FOR SPECIFIC MANAGEMENT MEASURES FOR THE PROGRAM\*\*

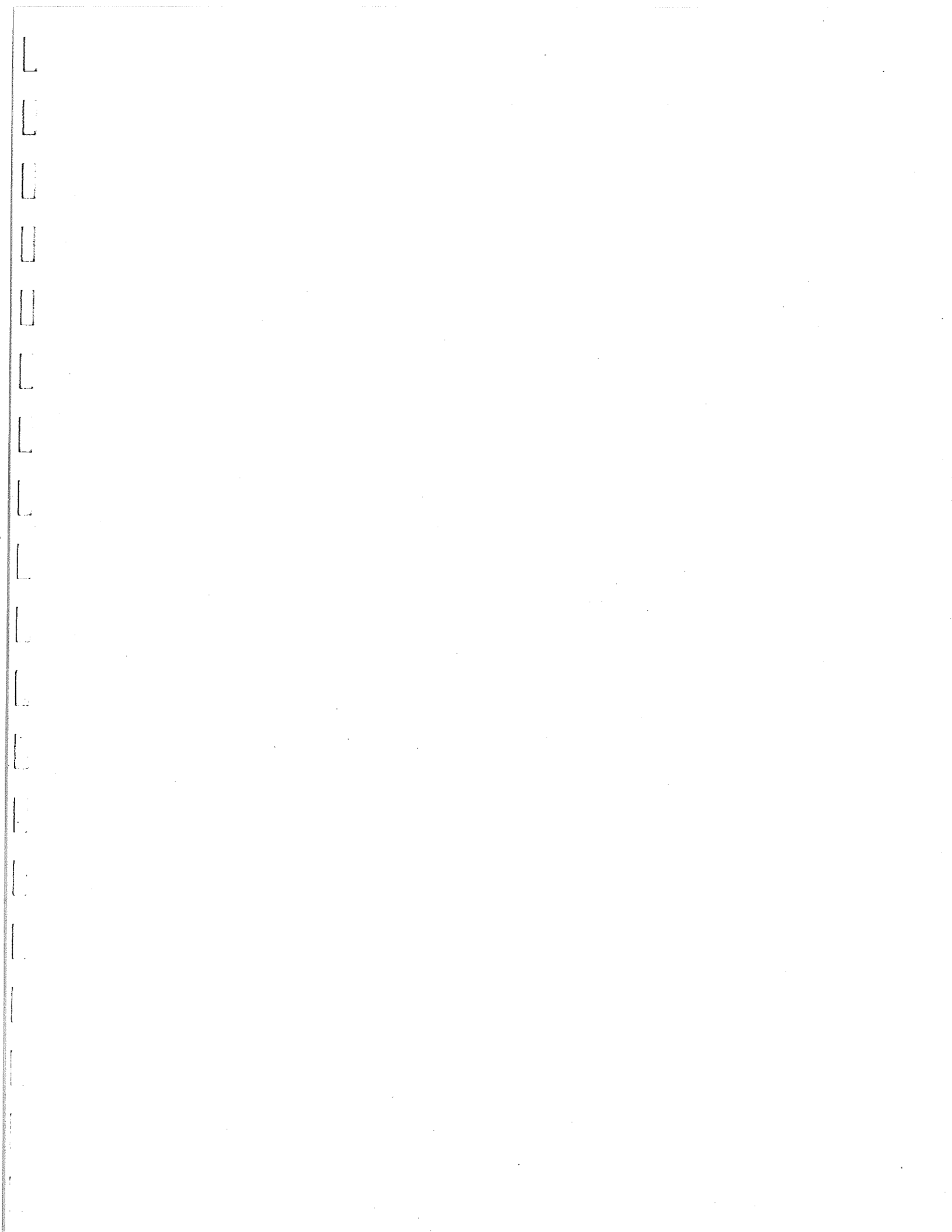
Management Practice / Required Minimum Measure	Contact Person Name, Title	Address	Telephone	Email Address
Public education, outreach and participation	<i>Alan Brodd City Engineer</i>	<i>169 Main St Woonsocket RI 02895</i>	<i>401-767-9213</i>	<i>ABrodd@woonsocketri.org</i>
Development of ordinances and enforceable policies related to stormwater management				
Municipal pollution prevention and good housekeeping for public works facilities, roadway storm drain maintenance, grounds management, illicit discharge detection and elimination (IDDE)				
Implementation of local permitting program for erosion and sedimentation controls				
Implementation of local permitting program for post-construction storm water management				

\*\*Please identify individual(s) who can represent the municipality/MS4 on these specific management measures.

Please sign and mail this completed form along with the Year 3 (2006) Annual Report to:

Attn: Ms. Jennifer Stout  
 RIDEM - Office of Water Resources  
 RIPDES Program - Permitting Section  
 235 Promenade Street  
 Providence, RI 02908

Submission deadline is March 10, 2007.





City of Woonsocket  
Rhode Island



March 1, 2005

ORDINANCE

7192

**AUTHORIZING THE ADOPTION OF  
ILLCIT DISCHARGE DETECTION AND ELIMINATION ORDINANCE  
BY THE DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION**

**WHEREAS**, illicit discharges to the municipal storm sewer system are comprised of non-storm water discharges that are expressly prohibited from the municipal storm sewer system; and

**WHEREAS**, pursuant to the requirements established in the Rhode Island Pollutant Discharge Elimination System (RIPDES) General Permit for Storm Water Discharge from Small Municipal Separate Storm Sewer System (MS4), the City of Woonsocket is required to adopt a 'Illicit Discharge Detection and Elimination Ordinance'; and

**WHEREAS**, the Engineering Division along with our consultants have established an ordinance (see attached) meeting the Department of Environmental Management criteria; and

**WHEREAS**, upon acceptance of the 'Illicit Discharge Detection and Elimination Ordinance' by the City Council it will be enforceable by the Engineering Division and the Building Inspection Office.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WOONSOCKET, RHODE ISLAND, AS FOLLOWS:**

**SECTION 1.** Said attached 'Illicit Discharge Detection and Elimination Ordinance' is adopted by the City Council and enforceable by the Department of Public Works, Engineering Division and/or the Building Inspection Office.

**SECTION 2.** The ordinance shall be part of the City's Code of Ordinance Chapter 16 Streets and Sidewalks Section 16-17.

**SECTION 3.** This Ordinance shall take effect on the eleventh consecutive day following its passage by the City Council as provided in Chapter III, Section 9 of the Woonsocket Home Rule Charter and all ordinances inconsistent herewith are hereby repealed.

  
Leo T. Fontaine

IN CITY COUNCIL March 7, 2005 - Read by title and passed for the first time.  
IN CITY COUNCIL March 21, 2005 - Read by title and passed.  
Signed and approved by Mayor Susan D. Menard - March 22, 2005

## **ILLICIT DISCHARGE DETECTION AND ELIMINATION ORDINANCE**

### **ARTICLE I**

#### **Section 1. Illicit Discharges**

Illicit discharges to the municipal storm sewer system are comprised of non-storm water discharges that are expressly prohibited from the municipal storm sewer system unless the discharges have received all required federal, state and local permits including the Rhode Island Pollutant Discharge Elimination System (RIPDES) or is included in one of the following categories of discharges: discharges which result from the washdown of vehicles at retail dealers selling new and used automobiles where no detergents are used and individual residential car washing; external building washdown where no detergents are used; the use of water to control dust; fire fighting activities; fire hydrant flushing; natural springs; uncontaminated groundwater; dechlorinated pool discharges; air conditioning condensate; lawn watering; potable water sources including waterline flushing; irrigation drainage; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled materials have been removed) and where detergents are not used; discharges from foundation or footing drains where flows are not contaminated with process materials such as solvents, or contaminated by contact with soils where spills or leaks of toxic or hazardous materials have occurred; uncontaminated utility vault dewatering; dechlorinated water line testing water; hydrostatic test water that does not contain any treatment chemicals and is not contaminated with process chemicals.

#### **Section 2 Right of Entry**

To the extent permitted by State law, or if authorized by the owner or other party in control of the property, the Director of Public Works and/or his/her designated representative may enter upon privately owned property for the purpose of performing their duties under this ordinance and may make or cause to be made such examinations, surveys or sampling as the City deems reasonably necessary.

#### **Section 3 Notification of Spills**

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in unauthorized discharges or pollutants discharging into storm water, the storm drain system, or waters of the State from said facility, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of a hazardous material said person shall immediately notify emergency response officials of the occurrence via emergency dispatch services (911). In the event of a release of non-hazardous materials, said person shall notify the authorized enforcement agency no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the authorized

enforcement agency within five (5) business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years. Nothing in this section shall preclude any owner/lessee from compliance with relevant provisions of the Rhode Island Clean Water Act, R.I.G.L. 46-12-1, et seq. or other applicable laws or regulations.

#### **Section 4      Enforcement**

1. If an illicit discharge to the municipal storm sewer system is detected, the owner shall cease the discharge. If the discharge does not cease within seven (7) calendar days, the owner may be fined seventy-five (\$75) per calendar day that the violation goes un-repaired and the City of Woonsocket shall have the rights to take whatever action it deems necessary to correct the violations and to assess a lien on the subject property in an amount equal to the cost of the remedial actions. The lien shall be enforced in the manner provided or authorized by law for the enforcement of common law liens on personal property. The lien shall be recorded in the land evidence records of the City of Woonsocket and shall incur legal interest from the date of the recording. The imposition of any penalty shall not exempt the offender from compliance with the provisions of this ordinance, including revocation of the Permit Bond or assessment of a lien on the property.
2. Any individual or other party is prohibited from discharging waste, including construction waste, building material, truck washout, chemicals, litter, sanitary wastes or other waste into the City Right of Way, storm drain, or other city property. If such a violation occurs the city may fine the violator two hundred (\$200) and required removal of the waste within ten (10) calendar days at the violator's expense. The City may charge the violator any costs associated with removal or repair of damage resulting from the violation.



CITY OF WOONSOCKET  
RHODE ISLAND

LAW DEPARTMENT  
169 Main Street  
Woonsocket, R.I. 02895-4379

Tel. (401) 767-9201  
Fax (401) 769-0316

February 19, 2007

Rhode Island Dept. of Environmental Management  
Office of Water Resources  
235 Promenade Street  
Providence, RI 02903

Re: RIPDES Permit No. RI R040016

Dear Sir or Madam:

Please be advised that the Woonsocket City Council, on March 21, 2005, formally adopted an "Illicit Discharge Detection and Elimination Ordinance" (Ordinance Chapter 7192, attached), a "Post Construction - Storm Water Control Ordinance" (Ordinance Chapter 7193, attached). On September 20, 1993, the City Council formally adopted an "Erosion and Sediment Control Ordinance (Ordinance Chapter 5803, attached).

If you have any questions or require any further information or documentation, please contact my office.

Sincerely,

Christopher Lambert  
City Solicitor

CL/abm  
Enclosures

# City of Woonsocket Rhode Island



93 0 116

30 August A.D. 19<sup>93</sup>

## Ordinance Chapter #5803

### AN ORDINANCE GOVERNING SOIL AND EROSION SEDIMENT CONTROL WITHIN THE CITY OF WOONSOCKET, RHODE ISLAND

It is ordained by the City Council of the  
City of Woonsocket as follows:

#### ARTICLE I

##### Section 1. Purpose

The City Council of the City of Woonsocket, Rhode Island, hereby finds that excessive quantities of soil are eroding from areas that are undergoing development for certain uses such as housing, industrial development, commercial development, gravel removal operations, recreational facilities and roads, etc. Erosion occurring in these areas make costly repairs necessary to gullies, washed-out fills, roads and embankments. The resulting sediment clogs storm sewers, road ditches, soil streams, and deposits silt in ponds, reservoirs, streams and the Blackstone River. In some of the City's waters, silt resulting from erosion has become a major water pollutant and threatens water supply, recreational, aesthetic and wildlife habitat values associates with these waters.

In its Comprehensive Community Plan the City of Woonsocket recognized the need to adopt a Soil Erosion Control Ordinance to prevent non-point source pollution of the City's water bodies, and to preserve the integrity of Woonsocket's landscape [Land Use Element - Recommendations].

The purpose of this Ordinance is to prevent erosion and sedimentation from occurring as a result of non-agricultural development within the City of Woonsocket by requiring proper provisions for water disposal and the control of soil surfaces during and after construction, in order to promote the safety, public health and general welfare of the residents of the City of Woonsocket

## Section 2 - Powers of the City Council

The City Council of the City of Woonsocket, Rhode Island, authorizes the Building Official to administer the provisions of this Ordinance under Section 45-46-1, 45-46-4 and 45-46-5 of the General Laws of the State of Rhode Island & Providence plantations in Chapter 45-46, entitled, "Soil Erosion and Sediment Control" and may designate all enforcement responsibilities to his/her designee.

## ARTICLE II

### Section 1 - Qualifications

The Building Official and/or his/her appointed agent reviewing soil erosion and sediment control plans shall have the following qualifications:

1. be a registered engineer, surveyors, or landscape architect or Soil and Water Conservation Society certified Erosion and Sediment Control Specialists, or
2. shall have attended a soil and sediment control training session sponsored by the United States Department of Agriculture Soil Conservation Service and Conservation Districts.

The Building Official and/or his/her appointed agent shall be granted the authority necessary to administer said Ordinance, including entry onto private property when necessary for periodic inspections to ensure compliance with the provisions of the approved soil erosion and sediment control plan.

Section 2 - Applicability

This Ordinance shall be applicable to any situation involving any disturbance to the terrain, topsoil or vegetation ground cover upon any property within the City of Woonsocket after determination of applicability by the Building Official and/or his/her appointed agent, based upon criteria outlined in Article III, Section 1 hereinafter. Compliance with the requirements as described herein shall not be construed to relieve the owner/applicant of any obligations to obtain necessary State, City or Federal permits otherwise required by appropriate statute or regulation appertaining thereto.

ARTICLE III

Section 1 - Determination of Applicability

[I] It shall be unlawful for any person to disturb any existing vegetation, grades, and contours of land in a manner which may increase the potential for soil erosion, without first applying for a Determination of Applicability from the Building Official of the City of Woonsocket and/or his/her appointed agent. Upon Determination of Applicability, the owner/applicant shall submit within sixty [60] days a Soil Erosion and Sediment Control Plan for approval by the Building Official and/or his/her appointed agent, as provided in Article IV hereinafter.

The Application for Determination of Applicability shall describe the location, nature, character, and time schedule of the proposed land disturbing activity in sufficient detail to allow the Building Official and/or his/her appointed agent to determine the potential for soil erosion and sedimentation resulting from the proposed project. In determining the applicability of the soil erosion and sediment control ordinance to a particular land disturbing activity, the Building Official and/or his/her appointed agent shall consider site topography, drainage patterns,

soil types according to the United States Geological Service, proximity to watercourses or wetlands, and other such information as deemed appropriate by the Building Official and/or his/her appointed agent.

A particular land disturbing activity shall not be subject to the requirements of this Ordinance if the Building Official and/or his/her appointed agent finds that erosion resulting from the land disturbing activity is insignificant and represents no threat to adjacent properties or to the quality of any coastal features or watercourse or wetlands, as defined hereinafter, or, drinking water source. The current "Rhode Island Soil Erosion and Sediment Control Handbook" U.S. Department of Agriculture Soil Conservation Service, Rhode Island Department of Environmental Management, and the Rhode Island State Conservation Committee shall be consulted in making this determination.

[II] No Determination of Applicability shall be required for the following:

(a) Construction, alteration or use of any additions to existing single-family or duplex homes or related structures, provided the ground coverage of such addition is less than one thousand (1,000) square feet, and such construction, alteration, and uses does not occur within one hundred feet (100') of any watercourse or wetlands, and the slopes at the site of land disturbance do not exceed ten percent (10%).

(b) Use of a home garden as permitted in a residential use zone by the provisions of the Woonsocket Zoning Ordinance and certified by the Building Official in association with on site residential use.

(c) Accepted agricultural management practices such as seasonal tilling and harvest activities associated with agricultural or silvacultural purposes, except within drinking water watersheds.



(d) Excavations for an improvement other than those described in Section (a) above which exhibit all of the following characteristics.

(1) does not result in total displacement of more than fifty (50) cubic yards of materials; and

(2) has no slope steeper than ten feet (10') vertical in one hundred feet (100') horizontal or approximately ten percent (10%); and

(3) has all disturbed surfaces areas promptly and effectively protected to prevent soil erosion and sedimentation as determined by the Building Official in the public best interest.

(e) Grading, as a maintenance measure, or for landscaping purposes on existing developing land parcels or lots, provided that all bare surface is immediately seeded, sodded or otherwise protected from erosive action and all of the following are met:

(1) The aggregate areas of such activity does not exceed two thousand (2,000) square feet; and

(2) The change of elevation does not exceed two feet at any point; and,

(3) The grading does not involve a quantity of fill greater than eighteen (18) cubic feet; except where fill is excavated from another portion of the same parcel and the quantity does not exceed fifty (50) cubic yards.

(f) Grading, filling, removal, or excavation activities and operations undertaken by the city under the direction and supervision of the Director of Public Works for works on streets, roads, or rights-of-way dedicated to public use, provided, however, that adequate and acceptable erosion and sediment controls

are incorporated in engineering plans and specifications are employed. Appropriate controls shall apply during construction as well as after the completion of these activities. All such work shall be undertaken in accordance with the performance principals provided for in Article V, Section 1 (c) hereinafter, and such standards and definitions as may be adopted to implement said performance principals.

#### ARTICLE IV

#### Section 1 - Provisions of Plan - Procedures

##### (a) Plan

(1) To obtain approval for a land disturbing activity as found applicable by the Building Official and/or his/her appointed agent under Article III, an applicant shall first file an erosion and sediment control plan signed by an owner of the property, or authorized agent, on which the work subject to approval is to be performed. The plan or drawings, as described in Article V of this Ordinance, shall include proposed erosion and sediment control measures to be employed by the applicant or the applicant's agent.

(2) Rhode Island Freshwater Wetlands Permit: Where any portion of a proposed development requires approval under the Rhode Island Freshwater Wetlands Act (RIGL 2-1-15 et. seq.), as amended, and when they contain provisions for soil erosion and sediment controls, that approved plan shall be a component of the overall soil erosion and sediment control plan required hereunder for the development.

##### (b) Fee Schedule for Application

An application for review of plans submitted under this Ordinance shall require a non-refundable filing fee paid to the City according to the following schedule:

1. SINGLE FAMILY AND DUPLEX SUBDIVISIONS

1	lot	\$75.00
2-9	lots	\$150 + \$50 for each lot over 2
10-15	lots	\$550 + \$40 for each lot over 10
16-25	lots	\$800 + \$30 for each lot over 16
26-50	lots	\$1,150 + \$20 for each lot over 26
51+	lots	\$1,700 + \$10 for each lot over 51

2. SITE DEVELOPMENT PLANS

	<u>Commercial/Industrial</u>	<u>Other</u>
up to 20,000 sq. ft.	\$250	\$150
20,000 sq.ft. - 1 acre	\$375	\$200
1 acre - 1.5 acre	\$500	\$250
1.5 acre - 2.0 acres	\$750	\$375
2.1 acres - 5.9 acres	\$1,000	\$500
6.0 acres - 10 acres	\$1,500	\$750
10.1 acres-50 acres	\$2,000	\$1,000
above 50 acres	\$2,500	\$1,500

(c) Plan Review

(1) Within ten (10) working days of the receipt of a completed plan, five (5) copies of which shall be submitted, the Building Official and/or his/her appointed agent shall send a copy of the plan to the reviewing authorities which may include the Public Works Department, Planning Board, Department of Planning & Development, and Conservation Commission, for the purpose of review and comment. The Building Official and/or his/her appointed agent may also, within the above time-frame submit copies of the plan to other local departments or agencies, including the conservation district that services the county, in order to better achieve the purpose of this chapter.

Failure of the aforementioned reviewing authorities to respond within twenty-one (21) days of their receipt of the plan shall be deemed as no objection to the plan as submitted

(2) The time allowed for plan review shall be commensurate within the proposed development project, and shall be done simultaneously with other review.

(d) Plan Approval

(1) The Building Official, and/or his/her appointed agent, shall take action, in writing, either approving or disapproving the plan with reasons stated within ten (10) days after the Building Official and/or his/her appointed agent has received the written opinions of the aforementioned review authorities.

(2) In approving a plan, the Building Official and/or his/her appointed agent, may attach such conditions deemed reasonably necessary by the aforementioned review authorities to further the purposes of this Ordinance. The conditions pertaining to erosion and sediment control measures and/or devices, may include, but are not limited to restoration, the erection of walls, dams, and structures, planting vegetation, trees and shrubs, furnishing necessary easements, and specifying a method of performing various kinds of works, and the sequence or timing thereof. The applicant/owner shall notify the Building Official and/or his/her appointed agent at least seventy-two (72) hours in advance of his/her intent to begin clearing and construction work described in the erosion and sediment control plan on the site during grading and construction.

(e) Appeals

(1) Administrative Procedures

(A) If the ruling of the Building Official and/or his/her appointed agent, is unsatisfactory to

the applicant/owner, the applicant/owner may file a written appeal. The appeal of plans for soil erosion and sediment control shall be to the Woonsocket Planning Board.

(B) Appeal procedures shall follow current requirements for appeal to the board above-mentioned.

(C) During the period in which the request for appeal is filed, and until such time as a final decision is rendered on the appeal, the decision of the Building Official and/or his/her agent shall remain in effect.

(2) Expert Opinion

The Building Official and/or his/her appointed agent, or the Woonsocket Planning Board, may seek technical assistance on any erosion and sediment control plan. The expert opinion must be made available in the office of the Building Official and/or his/her appointed as a public record prior to the appeals hearing. The cost of securing such expert opinion shall be borne equally by the City and the developer proposing the alteration.

ARTICLE V

Section 1 - Soil Erosion and Sediment Control Plan

(a) Plan Preparation

The Erosion and Sediment Control Plan shall be prepared by a registered engineer, or landscape architect or a Soil and Water Conservation Society certified Erosion and Sediment Control Specialist and five (5) copies of the plan shall be submitted to the Building Official and/or his/her appointed agent.

(d) Plan Contents

The Erosion and Sediment Control Plan shall include sufficient information about the proposed activities and land parcel(s) to form a clear basis for discussion and review and to assure compliance with all applicable requirements of this chapter. The plan shall be consistent with the data collection, data analysis, and plan preparation guidelines in the current "Rhode Island Soil Erosion and Sediment Control Handbook", prepared by the United States Department of Agriculture, Soil Conservation, Rhode Island Department of Environmental Management, and the Rhode Island State Conservation Committee and at a minimum it shall contain:

(1) A narrative describing the proposed land disturbing activity and soil erosion and sediment control measures and stormwater management measures to be installed to control erosion that could result from the proposed activity. Supporting documentation, such as a drainage area, existing site, and soil maps shall be provided as required by the Building Official and/or his/her appointed agent. Recent photographs of the site are very helpful.

(2) Construction drawings illustrating in detail, existing and proposed contours, drainage features, and vegetation; limits of clearing and grading, the location of soil erosion and sediment control and stormwater management measures, details of measures; stock piles and borrow areas; sequence and staging of land disturbing activities; and other such information needed for construction. Cross sections. Locus maps.

(3) Other information or construction plans and details as deemed necessary by the Building Official and/or his/her appointed agent for thorough review of the plan prior to action being taken as prescribed in this chapter.

Withholding or delay of such information may be reasons for the Building Official and/or his/her appointed agent to judge the application as incomplete and grounds for approval.

(c) Performance Principals:

The contents of the erosion and sediment control plan shall clearly demonstrate how the principals, outlined hereinafter, have been met in the design and are to be accomplished by the proposed development project.

(i) The site selected shall show due regard for natural drainage characteristics, topography and vegetation.

(ii) To the extent possible, steep slopes shall be avoided.

(iii) The grade of slopes created shall be minimized.

(iv) Post development run-off rates shall not exceed pre-development rates, consistent with other stormwater requirements which may be in effect. Any increase in storm run-off shall be retained and recharged as close as feasible to its place of origin by means of detention ponds or basins, seepage areas, sub-surfaces drains, or similar techniques.

(v) Original boundaries, alignment, and slope of watercourse within the project locus shall be preserved to the greatest extent possible.

(vi) In general, drainage shall be directed away from structures intended for human occupancy, municipal or utility use, or similar structures.

(vii) All drainage provisions shall be of such a design and capacity so as to adequately handle stormwater run-off, including run-off from tributary upstream areas which may be outside the locus of the protect.

Plans shall also identify the storm level being addressed in the plan; i.e. 10 year storm, 25 year storm or 100 year storm as minimum.

(viii) Drainage facilities shall be installed as early as feasible during construction, prior to such clearance if possible.

(ix) No fill shall be located adjacent to a watercourse.

(x) Temporary vegetation and/or mulching shall be used to protect bare areas and stock piles from erosion during construction; the smallest areas feasible shall be exposed at any one time; disturbed areas shall be protected during the non-growing months, November through March.

(xi) Permanent vegetation shall be placed immediately following final grading.

(xii) Trees and other existing vegetation shall be retained whenever feasible; the area within the drip-line shall be fenced or roped off to protect trees from construction equipment.

(xiii) All areas damaged during construction shall be re-sodded re-seeded or otherwise restored. Monitoring and maintenance schedules where required, shall be pre-determined.

## ARTICLES VI

### Section 1 - Enforcement

#### (a) Performance Bond

(1) Before approving an erosion and sediment control plan, the Building Official and/or his/her appointed agent shall require the applicant/owner to file a surety company performance bonds, or deposit of money or negotiable securities, or other methods of surety, as specified by the Building Official and/or his/her



appointed agent. This requirements may be waived by the Building Official and/or his/her agent for good cause. When any land disturbing activity is to take place within one hundred feet (100') of any watercourse or coastal feature or within an identified hazard district, or on slopes in excess of ten percent (10%) the filing of a performance bond shall be required. The amount of the bond, as determined by the Public Works Department, or in its absence, the Building Official and/or his/her appointed agent, shall be sufficient to cover the cost of implementing all erosion and sediment control measures as shown on the plan. The performance bond shall be reviewed and may be required to be increased by the Building Official and/or his/her agent on the annual anniversary date thereof.

(2) The bond or negotiable security filed by the applicant shall subject to approval of the form, content amount, and manner of execution by the Public Works Director

(3) A performance bond for an erosion sediment control plan for a subdivision may be included in the performance bond of the subdivision. The posting of the bond, as part of the subdivision performance does not, however, relieve the owner of any requirements of this Ordinance.

(b) Notice of Default on Performance Secured by Bond

(1) Whenever the Building Official and/or his/her appointed agent shall find that a default has occurred in the performance of any term(s) or condition(s) of the bond, or in the implementation of measures secured by the bond, written notice thereof shall be made to the applicant and to the surety of the bond by the City Solicitor. The notice shall state the nature of the default, work to be done, the estimated cost thereof, and the period of time deemed by the Building Official and/or his/her appointed agent to be reasonably necessary for the completion of the work.

(2) Failure of the applicant to acknowledge a default notice within five (5) days and to comply with the provisions and deadlines outlined in such notice of default shall mean the institution, by the city solicitor, without further notice of proceeding whenever, of appropriate measures to utilize the performance bond to cause the required work to be completed by the city, by contract, or by other appropriate means as determined by the city solicitor.

(c) Notice of Default on Performance Secured by Cash or Negotiable Security Deposits

If a certified check or negotiable securities deposit has been posted by the applicant, notice and procedure shall be the same as provided for in subsection (b) of this section.

(d) Release from Performance Bond Conditions

The performance bonding requirement shall remain in full force and effect for twelve (12) months following completion of the project, or longer of deemed necessary by the Building Official and/or his/her appointed agent. The Building Official shall consider the appropriateness of growing seasons as a time-frame.

Section 2.      Approval - Expiration - Renewal

(a) Every approval granted herein shall expire at the end of the time period set forth in the conditions. The developer shall fully perform and complete all of the work required within the specified time period.

(b) If the developer is unable to complete the work within the designated time period, he or she shall, at least (30) days prior to the expiration date, submit a written request for an extension of time to the Building Official and/or his/her appointed agent, setting forth the reasons underlying the requested time extension.

If the extension is warranted, the Building Official and/or his/her appointed agent may grant an extension of time up to a maximum of one (1) year from the date of the original deadline. Subsequent extensions under the same conditions maybe granted at the discretion of the Building Official.

Section 3 - Maintenance of Measures

Maintenance of all erosion-sediment control devises under this Ordinance shall be the responsibility of the Owner. The erosion-sediment control devices shall be maintained in good condition and working order on a continuing basis. Watercourses originating and located completely on private property shall be the responsibilities of the owner to their point of open discharge at the property line or at a communal watercourse within the property.

Section 4. Liability of the Applicant

Neither approval of an erosion and sediment control plan compliance with any condition of this chapter shall relieve the owner/applicant from any responsibility for damage to persons or property, nor impose any liability upon the City of Woonsocket, Rhode Island, for damages to persons or property.

ARTICLE VII

Section 1 Inspections

(a) Periodic Inspections

(1) The provisions of this Ordinance shall be administered and enforced by the Building Official and/or his/her appointed agent. All work shall be subject to periodic inspections by the Building Official and/or his/her appointed agent. All work shall be performed in accordance within inspection and construction control schedule approved by the Building Official and/or his/her appointed agent, who shall maintain a permanent file on all of his/her inspections.

Upon completion of the work, the developer or owner(s) shall notify the Building Official and/or his/her appointed agent that all grading, drainage, erosion, and sediment control measures and devices, and vegetation and ground cover planting has been completed in conformance with the approval, all attached plans, specifications, conditions, and other applicable provisions of this Ordinance.

(b) Final Inspection

(1) Upon notification of the completion by the owner, the Building Inspection and/or his/her appointed agent shall make a final inspection of the site in question and shall prepare a final summary inspection report of its findings which shall be retained in the Department of Inspections and in the Department of Public Works permanent inspection files. A copy of such report shall be sent to the developer and/or property owner.

(2) The applicant/owner may request the release of his/her performance bond from the Building Official and/or his/her appointed agent twelve (12) months or two (2) growing seasons after the final site inspection has been completed and approved. In the instance where the performance bond has been posted with the recording of the final subdivision, the bond shall be released, at a minimum of twelve (12) months after the Building Official and/or his/her appointed agent has been notified by the Woonsocket Planning Board of successful completion of all plat improvements by the applicant/owner.

ARTICLE VIII

Section 1. - Notification

(a) Non-Compliance

If, at any stage, the work-in-progress and/or completed under the terms of an approved erosion and sediment control plan does not conform to the plan, a written notice from the Building Official and/or his/her

designee to comply shall be transmitted by certified mail to the owner. The notice shall set forth the nature of the temporary and permanent corrections required and the time limit within which corrections shall be completed as set forth in Article VIII, Section 2(b). Failure to comply with the required corrections within the specified time limit shall be considered in violation of this chapter, in which case the performance bond or cash, or negotiable security deposit shall be subject to notice of default in accordance with Article VI, sections 1 (b) and (c) of this Ordinance.

## Section 2. Penalties

### (a) Revocation or Suspension of Approval

The approval of an erosion and sediment control plan under this chapter may be revoked or suspended by the Building Official and all work on the project halted for an indefinite time period by the Building Official and/or his/her appointed agent after written notification is transmitted by the law by the Building Official and/or his/her appointed agent to the developer for one or more of the following reasons:

- (1) Violation of any condition of the approval plan, or specifications pertaining thereto;
- (2) Violation of any provisions of this Ordinance or any other applicable law, ordinance, rule, or regulation related to the work or site of work; and
- (3) The existence of any condition or the performance of any act constituting or creating a nuisance, hazard, or endangerment to human life or the property of others, or contrary to the spirit of this Ordinance.

### (b) Other Penalties

In addition, thereto, whenever there is a failure to comply with the provisions of this chapter, the City shall have the right to notify the applicant/owner that he/she has ten (10) days from receipt of notice

to temporarily correct the violations and thirty (30) days from receipt of notice to permanently correct the violations. Should the applicant/owner fail to take the temporary corrective measures within the ten-day period and the permanent corrective measures within the thirty-day period, the city shall then have the right to take whatever actions it deems necessary to correct the violations and to assert a lien on the subject property in an amount equal to the costs of remedial action. The lien shall be enforced in the manner provided or authorized by law for the enforcement of common law liens on personal property. The lien shall be recorded with the records of land evidence of the municipality in the Office of the City Clerk, and the lien shall incur legal interest from the date of recording. The imposition of any penalty shall not exempt the offender from compliance with the provisions of this chapter, including revocation of the performance bond or assessment of a lien on the property by the City.

#### ARTICLE IX

##### Section 1. Definition of Select Terms

- (a) Applicant: Any person, corporation or public or private organization proposing a development which would involve disturbance to the natural terrain as herein defined.
- (b) Cut: An excavation. The difference between a point on the original ground and a designated point of lower elevation on the final grade. Also, the material removed in excavating.
- (c) Development Project: Any construction, reconstruction, demolition, or removal of structures, roadways, parking or other paved areas, utilities, or other similar facilities, including any action requiring a building permit from the City of Woonsocket.
- (d) Erosion: The removal of mineral and/or organic matter by the action of wind, water, and/or gravity.

- (e) Excavate: Any act by which earth, sand, gravel, rock or any other similar material is dug into, cut, quarried, uncovered, removed, displaced, relocated, or bulldozed, and shall include the condition resulting therefrom.
- (f) Fill: Any act by which earth, sand, or other materials is placed or moved to a new location above ground. The fill is also the difference in elevation between a point of existing undisturbed ground and a designated point of higher elevation of the final grade.
- (g) Land disturbing activity: Any physical land development activity which includes such action as clearance of vegetation, moving or filing of land, or excavation of soil or mineral resources, or similar activity.
- (h) Sediment: Solid materials, both mineral and/or organic, that is an suspension, is being transported, or has been moved its site of origin by wind, water and/or gravity as a product of erosion.
- (i) Soil erosion and sediment control plan: The (approved) document required before any person may cause a disturbance to the natural terrain within the City as herein regulated. Also, herein referred to as erosion and sediment control plan, approved plan.
- (j) Run-off: The surface water discharge or rate of discharge of a given watershed after a fall of rain or snow and including seepage flows that do not enter the soil but run off the surface of the land.
- (k) Coastal Features: To include, but not be limited to: coastal beaches and dunes, barrier beaches, coastal wetlands, coastal cliffs, bluffs and banks, rocky shores and manmade shorelines.
- (l) Vegetation & Soils: As defined by the United States Geological Services of the United States Department of Commerce.

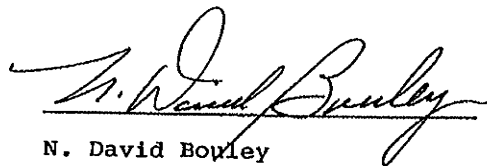
- (m) Watercourse: The term watercourse shall be held to mean any tidewater or coastal wetland at its mean high water level, and any freshwater at its seasonal high water level, including, but not limited to, any river, stream, brook, pond, lake, swamp, marsh, bog, fen, wet meadow, or other standing or flowing body of water. The edge of the watercourse as herein defined shall be used for delineation purposes.

Section 2. - Severability

If any provisions of this Ordinance or any rule or determination made hereunder, or application hereof to any person, agency or circumstances is held invalid by a court of competent jurisdiction, the remainder of this Ordinance and its application to any person, agency, or circumstance shall not be affected thereby. The invalidation of any section or sections of this Ordinance shall not affect the validity of the remainder of this Ordinance.

Section 3 - Effective Date

This Ordinance shall take effect on the eleventh (11th) consecutive date following its passage by the Woonsocket City Council in accordance with the provisions of Article III, Section 9 of the Woonsocket Home Rule Charter and any Ordinances or portions of Ordinances inconsistent herewith are hereby repealed.



N. David Bowley

City Councilman

IN CITY COUNCIL September 7, 1993 - Read by title and passed for the first time.  
IN CITY COUNCIL September 20, 1993 - Read by title and passed.  
Signed and approved by Mayor Francis L. Lanctot - September 23, 1993



05 08

City of Woonsocket  
Rhode Island



March 1, 2005

ORDINANCE

7193

**AUTHORIZING THE ADOPTION OF  
POST CONSTRUCTION - STORM WATER CONTROL ORDINANCE  
BY THE DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION**

**WHEREAS,** unmitigated storm water from areas altered by development may pose public health and safety threats. Potential contaminants in storm water runoff may include suspended solids, nitrogen, phosphorus, hydrocarbons, heavy metals, pathogenic organisms (bacteria and viruses), and road salts; and

**WHEREAS,** pursuit to the requirements established in the Rhode Island Pollutant Discharge Elimination System (RIPDES) General Permit for Storm Water Discharge from Small Municipal Separate Storm Sewer System (MS4), the City of Woonsocket is required to adopt a 'Post Construction - Storm Water Control Ordinance'; and

**WHEREAS,** the Engineering Division along with our consultants have established an ordinance (see attached) meeting the Department of Environmental Management criteria; and

**WHEREAS,** upon acceptance of the 'Post Construction - Storm Water Control Ordinance' by the City Council it will be enforceable by the Engineering Division and the Building Inspection Office.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WOONSOCKET, RHODE ISLAND, AS FOLLOWS:**

**SECTION 1.** Said attached 'Post Construction - Storm Water Control Ordinance' is adopted by the City Council and enforceable by the Department of Public Works, Engineering Division and/or the Building Inspection Office.

**SECTION 2.** The ordinance shall be part of the City's Code of Ordinance Chapter 7 Buildings and Building Regulations Section 7 ½.

**SECTION 3.** This Ordinance shall take effect on the eleventh consecutive day following its passage by the City Council as provided in Chapter III, Section 9 of the Woonsocket Home Rule Charter and all ordinances inconsistent herewith are hereby repealed.

  
Leo T. Fontaine

IN CITY COUNCIL March 7, 2005 - Read by title and passed for the first time.  
IN CITY COUNCIL March 21, 2005 - Read by title and passed.  
Signed and approved by Mayor Susan D. Menard - March 22, 2005

## **POST CONSTRUCTION - STORM WATER CONTROL ORDINANCE**

### **ARTICLE I**

#### **Section 1. Purpose**

Unmitigated storm water from areas altered by development may pose public health and safety threats. Potential contaminants in storm water runoff to the City's storm water system may include suspended solids, nitrogen, phosphorus, hydrocarbons, heavy metals, pathogenic organisms (bacteria and viruses), and road salts.

This ordinance establishes the administrative mechanisms necessary for Woonsocket to ensure proper storm water management. The ordinance is written to work in conjunction with current state regulations.

This ordinance is meant to coincide with the City of Woonsocket Erosion and Sediment Control Ordinance Chapter 7 ½.

#### **Section 2. Applicability**

This ordinance shall apply to all development occurring within Woonsocket. No person shall engage in land development activities without receiving approval from the Woonsocket Planning Board and/or permitted through the Department of Public Works, Engineering Division and/or the Building Inspection Office, unless specifically exempted by Article I Section 3 of this ordinance.

#### **Section 3. Exemptions**

The following activities do not require written approval pursuant to this ordinance:

- A. Construction, alternation or use of any additions to existing single family or duplex homes or related structures, provided the grounds coverage of such addition is less than one thousand (1,000) square feet.
- B. Grading, as a maintenance measure or for landscaping, on contiguous areas of developed land, parcels and lots, which in aggregate do not exceed one thousand (1,000) square feet.

#### **Section 4. Variance**

The Director of Public Works or the City Engineer reviewing an application under this ordinance may:

- A. Vary requirements of this ordinance when strict implementation of the requirements of this ordinance create an unnecessary hardship or are not feasible.

- B. Allow use of an innovative management practice where strict adherence to existing criteria would be costly or of negligible environmental benefit.

#### **Section 5. Submissions and Approvals**

In accordance with this ordinance, all persons must obtain approval from the Woonsocket Planning Board and/or permitted through the Department of Public Works, Engineering Division and/or the Building Inspection Office, prior to engaging in any land development activities, unless exempted by Article 1 Section 3 of this ordinance. To obtain approval applicants must demonstrate compliance with all policy, standards and requirements of this ordinance to the satisfaction of the Director of Public Works or the City Engineer. Applicants may demonstrate compliance via submission of materials and documentation including but not limited to a Storm Water Management Plan, site plan, maintenance agreement, and Permit Bond in accordance with this Ordinance. Plans will be reviewed in conjunction with site plan review by the Engineering Division.

### **ARTICLE II**

#### **Section 1. Technical Standards**

All applicants are required to develop and submit a Storm Water Management Plan. All Storm Water Management Plans must address storm water management on a site-by-site basis and all requirements of this ordinance. All storm water management practices shall be consistent with the *Rhode Island Stormwater Design and Installation Standards Manual* and the *Rhode Island Soil Erosion and Sediment Control Handbook*, as amended.

##### **A. Performance Standards**

Storm Water Management Plans shall incorporate best management practices for water quality control, which in combination are demonstrated to reduce the average annual total suspended solids in postdevelopment runoff by eighty percent (80%). Development in drinking water supply watersheds may be held to higher standards.

##### **B. Disallowed Storm Water Best Management Practices**

The placement of detention basins and other storm water structures within a floodplain shall be avoided. If there is no alternative, the applicant must show what effects, if any, the tailwaters created by the floodplain will have on the outflow and effective storage capacity of the detention facility.

##### **C. Facilitation of Maintenance**

Facilities that require maintenance shall be designed to minimize the need for regular maintenance, facilitate required maintenance, and ensure accessibility of components that require maintenance. At a minimum, all Storm Water Management Plans must

incorporate best management practices with appropriate maintenance design in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended; or the *Rhode Island Soil Erosion and Sediment Control Handbook*, as amended.

#### **D. Flood Protection**

Storm Water Management Plans shall demonstrate that a proposed project provides for protection of life and property from flooding and flood flows. Water quantities must be controlled in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended, or a municipally approved regional Storm Water Management Plan for the watershed in which the development site is located. Storm Water Management Plans shall demonstrate incorporation of the following standards into the proposed project:

1. Control and maintenance of postdevelopment peak discharge rates from the 2-year, 10-year, 25-year, and 100-year storm events and predevelopment levels.
2. Downstream analysis of the 100-year storm event and control of the peak discharge rate for the 100-year storm to mitigate significant downstream impacts.
3. Discharge from any storm water facility must be conveyed through properly constructed conveyance system to provide for nonerosive flows during all storm events. The proposed storm water conveyance system consisting of open channels, pipes, and other conveyance devices shall at a minimum accommodate the runoff from a 25-year storm event. The storm water conveyance system must provide for nonerosive flows to receiving waters.

#### **E. Surface Water and Groundwater**

Storm Water Management Plans shall demonstrate that during develop and postdevelopment, all receiving waters will be recharged in a manner closely resembling predevelopment conditions and that the developed site will retain hydrological conditions that closely resemble of those prior to disturbance.

### **ARTICLE III**

#### **Section 1. Maintenance Requirements for Best Management Practices**

##### **A. Routine Maintenance and Repair Procedures**

Preventative maintenance procedures are required to maintain the intended operation and safe condition of the storm water management facility by greatly reducing the occurrence

of problems and malfunctions. To be effective, preventative maintenance shall be performed on a regular basis and include such routine procedures as training of staff, periodic inspections, grass cutting elimination of mosquito breeding habitats, and pond maintenance. Disposal of sediment and debris must occur on a regular basis (unless otherwise specified within an approved plan), at suitable disposal sites or recycling sites and comply with applicable local, state and federal regulations.

Corrective maintenance procedures are required to correct a problem or malfunction at a storm water management facility and to restore the facility's intended operation and safe condition. Based upon the severity of the problem, corrective maintenance must be performed on an as-needed or emergency basis and include such procedures as structural repairs, removal of debris, sediment and trash removal which threaten discharge capacity, erosion repair, snow and ice removal, fence repair, mosquito extermination, and restoration of vegetated and nonvegetated linings.

#### **B. General Maintenance Standards for Storm Water Best Management Practices.**

Maintenance design and maintenance procedures for all storm water best management practices shall be in accordance *Rhode Island Stormwater Design and Installation Standards Manual*, as amended; or the *Rhode Island Soil Erosion and Sediment Control Handbook*, as amended. Storm Water Management Plans shall demonstrate appropriate maintenance design and procedures for each proposed best management practice. The following policies and standards for maintenance must be incorporated into Storm Water Management Plans, as applicable.

1. A maintenance schedule for each type of BMP must be included in the Storm Water Management Plan. These schedules shall list the frequency and type of maintenance operations necessary along with the legally responsible party's name, address, and telephone number. The Engineering Division shall be notified if the property changes ownership along with the new responsible party's name, address, and telephone number. If the storm water drainage system is to be deeded to the local municipality the applicant must obtain a letter from the municipality acknowledging maintenance responsibility and intent of ownership after approval from the City Council.

### **ARTICLE IV**

#### **Section 1. Storm Water Management Plans**

##### **A. Calculations**

In addition to the information required for Storm Water Management Plans the following information must also be included with the application, where applicable.

1. The area of each subbasin as identified on final site plans.
2. The area of pervious and impervious surfaces (including all roads, driveways, rooftops, sidewalks, etc.) for each subbasin as identified in the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended.
3. Weighted curve numbers, (CN) as determined by the SCS TR-55 method, for each subbasin as identified in the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended.
4. Invert elevations for all applicable BMPs. In addition, the elevations for permanent and/or flood pool stages, including peak discharge rates for each stage, within all basins are required.
5. The total volume capacity for all flood control and water quality BMPs (e.g., infiltration basin, detention basins, wet ponds, etc.). Volumes must be segregated into permanent and flood pool stage volumes where applicable. Furthermore, the volumes of all sediment storage (basins, forebays, etc.) areas must also be shown.
6. Predevelopment and postdevelopment peak discharge rates and runoff volumes for the 2-year, 10-year, 25-year, and 100-year frequency storm events for each subwatershed. The water quality volume must also be calculated for each subwatershed. All relevant variables such as curve numbers and time of concentration, along with the supporting computations and worksheets must be included.

#### **B. Narrative Description**

As part of the Storm Water Management Plan, the applicant shall include a discussion of the protection of environmental resource functions and values. The following outline is provided as guidance for preparing a narrative description for the Storm Water Management Plan. Depending on the size and scope of the proposed project, the amount of information required by the Engineering Division may vary, therefore, it is advised to consult the appropriate permitting agency for specific requirements.

1. Site description -- general topography, soil types, current vegetative composition and relative abundance, existing infrastructure, and/or adjacent properties, identification of major resources (e.g., wetlands, groundwater, surface waters, etc.), name of receiving water(s), potential water quality and/or hydrologic impacts on resources.
2. Site input data -- watershed characteristics, area of all pervious and impervious surfaces, total area of site, annual mean rainfall, runoff coefficients, curve numbers for various land uses, peak discharge rates.

3. Land use planning and source control plan.
4. Best Management Practices – identify the type of BMP(s) employed both during and post construction and justification for selection, including any deviation from the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended, and the potential effect on pollutant removal efficiency.
5. Technical feasibility – of BMPs including sizing, location, hydraulic and environmental impacts. Alternatives, which were considered but determined not to be feasible, should also be discussed.
6. Maintenance schedule – of BMPs to be used, both during and post construction including frequency of inspection and maintenance.

## **Section 2. Maintenance Agreements**

Maintenance agreements shall provide written, contractual documentation, which demonstrates compliance with this ordinance and legal arrangements for the upkeep of storm water facilities to assure their functionality and safety in accordance with this ordinance.

Maintenance agreements, which describe all maintenance schedules and requirements, must be developed for each storm water management facility unless the facility is dedicated to and accepted by the City of Woonsocket.

### **A. Recognition of Municipal Inspection Requirements**

Maintenance agreements shall include a reasonable and regular schedule for the City of Woonsocket, or designee, to conduct on-site inspection of the functionality and safety of storm water management facilities. Inspection schedules shall be based on the complexity and frequency of maintenance needs and shall be subject to the approval of City of Woonsocket. At a minimum, maintenance frequency should be in accordance with the *Rhode Island Stormwater Design and Installation Standards Manual*, as amended.

### **B. Record Keeping for Maintenance Activities**

Maintenance agreements shall include provisions for maintenance record keeping. All activities conducted in accordance with a maintenance agreement must be recorded in a work order and inspection log. Timely updates of the log shall be the responsibility of the storm water management facility owner or other responsible party pursuant to this ordinance. Review of the maintenance and inspection log shall be completed by the City of Woonsocket, or designee, to determine the effectiveness of operation, maintenance and

safety activities. Reviews shall occur as part of each on-site inspection. Additional reviews may be made as deemed appropriate by the City of Woonsocket or designee.

**C. Responsibility for Maintenance to Assure Functionality and Safety**

Appropriate maintenance to assure functionality and safety of storm water management facilities shall be the responsibility the owner or may be assumed by another party via a written contractual arrangement in accordance with this ordinance.

**D. Alterations to Maintenance Agreements**

Any alterations in maintenance responsibility or alterations to maintenance agreements must be reviewed and approved by the Director of Public Works and or the City Engineer. If portions of the land serviced by a storm water management facility are to be sold, written contractual arrangements shall be made to pass all responsibility of the maintenance agreement to the purchaser and shall be subject to review and approval of the Director of Public Works and or the City Engineer. All alterations to maintenance agreements shall be recorded in accordance with this ordinance.

**E. Recordation of Maintenance Agreements**

All maintenance agreements and alterations to maintenance agreements shall be recorded in the land evidence records of the City of Woonsocket. Copies of all maintenance agreements and alterations to maintenance agreements shall be included in Storm Water Management Plans. Recordation of maintenance agreements in accordance with this ordinance shall be the responsibility of the owner.

**Section 4 Application Fees**

The City of Woonsocket shall be empowered to collect fees from permit applicants, which are commensurate with the cost of administering this ordinance.

**ARTICLE V**

**Section 1. Enforcement**

The City of Woonsocket shall have the authority and discretion to invoke penalties and/or impose a lien, whenever a storm water management facility is not implemented, operated, and/or maintained in accordance with its approval and this ordinance. Any penalty invoked shall be in accordance with this Section.

**A. Notification of Violation**

In the event that the storm water management facility becomes a danger to public safety or public health, in need of maintenance, or otherwise fails to comply with the provisions of this ordinance, the City of Woonsocket shall so notify the property owner in writing by



certified mail. Upon receipt of that notice, the property owner shall have five (5) calendar days to temporarily correct the violation and thirty (30) calendar days from the receipt of notice to permanently correct the violation. If the property owner fails or refuses to perform such maintenance and repair, the municipality may immediately proceed to do so and shall bill the cost thereof to the property owner or proceed with redeeming the Permit Bond. If the storm water management facility is of imminent danger to public safety, the City shall have the right to correct the problem without delay and shall bill the cost thereof to the property owner or proceed with redeeming the Permit Bond.

#### **B. Enforcement of Penalties and Liens**

Should the applicant/owner fail to take the corrective actions, the City of Woonsocket shall then have the right to take whatever actions it deems necessary to correct the violations including fining the owner seventy-five (\$75) per calendar day that the violation goes un-repaired and to assert a lien on the subject property in an amount equal to the costs of remedial actions. The lien shall be enforced in the manner provided or authorized by law for the enforcement of common law liens on personal property. The lien shall be recorded in the land evidence records of the City of Woonsocket, and shall incur legal interest from the date of recording. The imposition of any penalty shall not exempt the offender from compliance with the provisions of this ordinance, including assessment of a lien on the property.

#### **C. Hearing**

Any owner or responsible party, receiving a written notice of violation, shall be given an opportunity, within a reasonable time frame, for a hearing before the Municipal Court to state their case. If evidence indicates that a violation has not occurred, the Municipal Court shall revoke the notice of violation.

### **ARTICLE VI**

#### **Section 1. Implementation**

This ordinance shall take effect upon final passage and approval by the City Council as appropriate.