

**RIPDES PHASE II  
2015 ANNUAL REPORT  
YEAR 12**



**TOWN OF SMITHFIELD  
64 FARNUM PIKE  
SMITHFIELD, RI 02917**

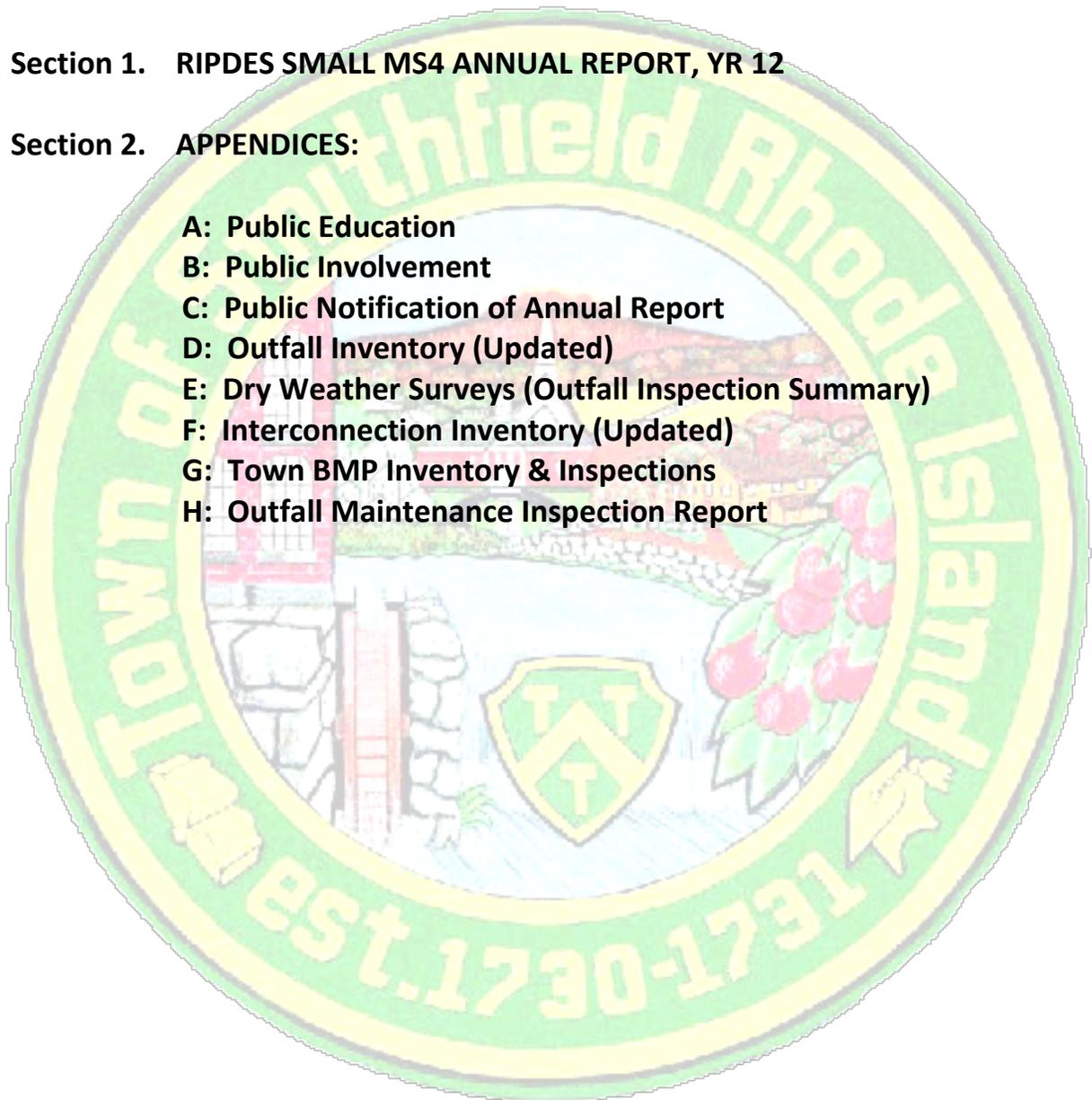
**RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034**

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<b>DEM USE ONLY</b>	
Date Received	_____

## RIPDES SMALL MS4 ANNUAL REPORT GENERAL INFORMATION PAGE

RIPDES PERMIT #RIR040 034

REPORTING PERIOD:       **YEAR 12**  
Jan 2015-Dec 2015

**OPERATOR OF MS4**

Name: Town of Smithfield			
Mailing Address: 64 Farnum Pike			
City: Smithfield	State: RI	Zip: 02917	Phone: (401) 233-1000
Contact Person: Mark Conboy		Title: Assistant Town Engineer	
		Email: <a href="mailto:mconboy@smithfieldri.com">mconboy@smithfieldri.com</a>	
Legal status (circle one):			
PRI - Private	<b>PUB - Public</b>	BPP - Public/Private	STA - State      FED - Federal
Other (please specify):			

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

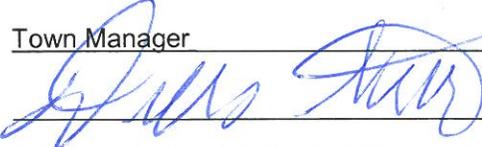
Name: (Same as OPERATOR)			
Mailing Address:			
City:	State:	Zip:	Phone: (   )
Contact Person:		Title:	
		Email:	

**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    Dennis Finlay

Print Title    Town Manager

Signature          Date    3-8-16





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

**SECTION I. OVERALL EVALUATION:**

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

Include information relevant to the implementation of each measurable goal, such as activities, topics addressed, audiences and pollutants targeted. Discuss 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.)**

**Responsible Party Contact Name:** Mark Conboy, Assistant Town Engineer

**Phone:** (401) 233-1041 **Email:** [mconboy@smithfieldri.com](mailto:mconboy@smithfieldri.com)

IV.B.1.b.1	Use the space below to provide a General Summary of activities implemented to educate your community on how to reduce stormwater pollution. For TMDL affected areas, with stormwater associated pollutants of concern, indicate rationale for choosing the education activity. List materials used for public education and topics addressed. Summarize implementation status and discuss if the activity is appropriate and effective.
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The Town installed storm drain markers on its catch basins and posts several educational brochures at Town Hall and the Town website to provide the public information on how to minimize stormwater pollution and improve water quality. Stormwater associated pollutants of concern include but not limited to waterfowl and pet waste, septic system pollution contributions, fertilizer overuse, hazardous products, car washing, disposal of medicines, agricultural runoff, sediment pollution, draining swimming pools, garbage and litter.

An article entitled "Waterfowl, Wildlife, Waste and the Woonie" was recently published in the Smithfield Times by the Smithfield Conservation Commission which illustrates the danger of pet waste washing into the waterways if not picked up. The article targets TMDL affected areas and provides an easy solution.

These education activities are appropriate and effective since they promote public awareness and involvement. Materials used for public education are listed in **Appendix A**. Parties responsible for achieving measurable goals include the Town of Smithfield Engineering Department and RIDOT.

IV.B.1.b.2	Use the space below to provide a general summary of how the public education program was used to educate the community on how to become involved in the municipal or statewide stormwater program. Describe partnerships with governmental and non-governmental agencies used to involve your community.
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The public education program mainly consisted of storm drain markers, brochures, magazine publications and websites to educate the community. The public education program, as stated in years prior, is not a coordinated effort among the groups involved but rather separate in their goals and techniques. This method does achieve the goal of educating the public on the effects of stormwater pollution but does require a better statewide organized program.

The Town has partnered with NEMO and RIDEM during past years. Additional efforts are with the cooperation of the Smithfield Conservation Commission, Revive the Roots Group, NRICD, EPA, Narragansett Bay Commission, Georgiaville Pond Association, University of Rhode Island and Town Staff.

**PUBLIC EDUCATION AND OUTREACH cont'd**

Check all topics that were included in the Public Education and Outreach program during this reporting period. For each of the topics selected, provide the target pollutant (e.g. construction sites, total suspended solids):

Topic	Target Pollutant(s)
<input checked="" type="checkbox"/> Construction Sites	Sediment, total suspended solids
<input checked="" type="checkbox"/> Pesticide and Fertilizer Application	Phosphorus, chemicals
<input checked="" type="checkbox"/> General Stormwater Management Information	Sediment, total suspended solids
<input checked="" type="checkbox"/> Pet Waste Management	Phosphorus, bacteria
<input checked="" type="checkbox"/> Household Hazardous Waste Disposal	Chemicals
<input checked="" type="checkbox"/> Recycling	Trash, litter
<input type="checkbox"/> Illicit Discharge Detection and Elimination	
<input type="checkbox"/> Riparian Corridor Protection/Restoration	
<input type="checkbox"/> Infrastructure Maintenance	
<input type="checkbox"/> Trash Management	
<input type="checkbox"/> Smart Growth	
<input checked="" type="checkbox"/> Vehicle Washing	Soap, phosphorus
<input checked="" type="checkbox"/> Storm Drain Marking	Bacteria, sediment, total suspended solids
<input checked="" type="checkbox"/> Water Conservation	Waste water discharge
<input type="checkbox"/> Green Infrastructure/Better Site Design/LID	
<input type="checkbox"/> Wetland Protection	
<input checked="" type="checkbox"/> Other: Septic System Maintenance	Bacteria
<input type="checkbox"/> None	

**Specific audiences targeted during this reporting period:**

- |                                                 |                                                    |
|-------------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Public Employees       | <input checked="" type="checkbox"/> Contractors    |
| <input checked="" type="checkbox"/> Residential | <input checked="" type="checkbox"/> Developers     |
| <input checked="" type="checkbox"/> Businesses  | <input checked="" type="checkbox"/> General Public |
| <input type="checkbox"/> Restaurants            | <input checked="" type="checkbox"/> Industries     |
| <input type="checkbox"/> Other:                 | <input checked="" type="checkbox"/> Agricultural   |

**Additional Measurable Goals and Activities**

Please list all stormwater training attended by your staff during the 2015 calendar year and list the name(s) and municipal position of all staff who attended the training.

Trainings: 1) NETI Webinar: Paying for Stormwater – The Benefits of a Utility (8/12/2015)  
2) Narragansett Bay Stormwater Financing Workshop – Part 2 (12/7/2015)  
3) Roundtable Discussion on Municipal Stormwater Management (12/17/2015)

Attending name of staff and title: Mark Conboy, Assistant Town Engineer (#1,2,3)

Attending name of staff and title: Kevin Cleary, Town Engineer (#3)



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

**SECTION I. OVERALL EVALUATION:**

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

Include information relevant to the implementation of each measurable goal, such as types of activities and audiences/groups engaged. Discuss 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.)**

**Responsible Party Contact Name:** Seth Lemoine, Public Works Director

**B. Phone:** (401) 233-1034

**Email:** [slemoine@smithfieldri.com](mailto:slemoine@smithfieldri.com)

IV.B.2.b.2.ii Use the space below to describe audiences targeted for the public involvement minimum measure, include a description of the groups engaged, and activities implemented and if a particular pollutant(s) was targeted. If addressing TMDL requirements indicate how the audience(s) and/or activity address the pollutant(s) of concern. Name of person(s) and/or parties responsible for implementation of activities identified. Assess the effectiveness of BMP and measurable goal.

The audiences targeted are mainly town residents and the sources of stormwater pollution within the Town of Smithfield generally vary. The town in general does not have a large variety of activities available for the targeted groups. Any opportunity even remotely related to stormwater management, water quality and pollution control is posted in public locations and the Town website, advertised in local papers or spread word of mouth. See **Appendix B**. The responsible parties for the above referenced activities include local schools and teachers, Smithfield Conservation Commission, Georgiaville Pond Association, RIDOT, Public Works, Town Planner and Town Engineer.

Opportunities provided for public participation in implementation, development, evaluation, and improvement of the Stormwater Management Program (SWMP) Plan during this reporting period. Check all that apply:

- |                                                    |                                               |
|----------------------------------------------------|-----------------------------------------------|
| <input checked="" type="checkbox"/> Cleanup Events | <input type="checkbox"/> Storm Drain Markings |
| <input type="checkbox"/> Comments on SWMP Received | <input type="checkbox"/> Stakeholder Meetings |
| <input type="checkbox"/> Community Hotlines        | <input type="checkbox"/> Volunteer Monitoring |
| <input type="checkbox"/> Community Meetings        | <input type="checkbox"/> Plantings            |
| <input type="checkbox"/> Other (describe)          |                                               |

**Additional Measurable Goals and Activities**

Earth Day cleanup activities this past reporting year were focused on various areas within the Woonasquatucket River Watershed.

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

Was the availability of this Annual Report and the Stormwater Management Program Plan (SWMP) announced via public notice?  YES  NO

If YES, Date of Public Notice: February 4, 2016

How was public notified:

- |                                                                       |                                                           |
|-----------------------------------------------------------------------|-----------------------------------------------------------|
| <input type="checkbox"/> List-Serve (Enter # of names in List: _____) | <input checked="" type="checkbox"/> Newspaper Advertising |
| <input type="checkbox"/> TV/Radio Notices                             | <input checked="" type="checkbox"/> Other: Town website   |

Enter Web Page URL: [smithfieldri.com/engineer](http://smithfieldri.com/engineer)

(See **Appendix C** for copy of public notice)

Was public meeting held?  YES  NO

Date:

Where:

Summary of public comments received: N/A

Planned responses or changes to the program: N/A



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

### SECTION I. OVERALL EVALUATION:

#### GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS

Include information relevant to the implementation of each measurable goal, such as activities implemented (when reporting tracked and eliminated illicit discharges, please explain the rationale for targeting the illicit discharge) to comply with on-going requirements, and illicit discharge public education activities, audiences and pollutants targeted. Discuss 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.)**

**Responsible Party Contact Name:** Mark Conboy, Assistant Town Engineer

**Phone:** (401) 233-1041 **Email:** [mconboy@smithfieldri.com](mailto:mconboy@smithfieldri.com)

IV.B.3.b.1:	<p>If the outfall map was not completed, use the space below to indicate reasons why, proposed schedule for completion of requirement and person(s)/ Department responsible for completion. (The Department recommends electronic submission of updated EXCEL Tables if this information has been amended.)</p> <p><b>Number of Outfalls Mapped:</b> <u>239</u></p> <p><b>Percent Complete:</b> <u>100%</u></p> <p><b>If 100% Complete, Provide Date of Completion:</b> <u>2003 (updated 2015)</u></p>
<p>The original outfall map was developed by a consultant hired by the Town in 2003 and submitted to the RIDEM for the 2003 reporting year with a total of 121 outfalls. Since then, the Smithfield Engineering Department has undertaken the task of mapping and editing the MS4 owned and operated drainage infrastructure. The mapping is complete but is continuously being expanded and updated. An updated EXCEL file of the Town outfalls is attached in <b>Appendix D</b>.</p>	
IV.B.3.b.2	<p>Indicate if your municipality chose to implement the tagging of outfalls activity under the IDDE minimum measure, activities and actions undertaken under the 2015 calendar year.</p>
<p>Smithfield had chosen to GPS locate outfalls and import collected field data into GIS layers instead of implementing the tagging of outfalls.</p>	
IV.B.3.b.3	<p>Use the space below to provide a summary of the implementation of recording of system additional elements (catch basins, manholes, and/or pipes). Indicate if the activity was implemented as a result of the tracing of illicit discharges, new MS4 construction projects, and inspection of catch basins required under the IDDE and Pollution Prevention and Good Housekeeping Minimum Measures, and/or as a result of TMDL related requirements and/or investigations. Assess effectiveness of the program minimizing water quality impacts.</p>
<p>Smithfield Engineering Department has focused on GPS recording all Town owned and operated MS4 elements. Approximately 98% of the features have been located and 90% of the data has been edited for GIS layers. Outfalls, catch basins, manholes, pipes and connectivity were located in the field with a handheld GPS and converted into the GIS layers. Additional features were also noted such as pipes in/out, pipe size, pipe material, structural condition, general maintenance, non-permitted or illicit connections/discharges. This activity was NOT the result of tracing an illicit discharge but has helped to provide thorough inspections of the Town's drainage infrastructure.</p>	
IV.B.3.b.4	<p>Indicate if the IDDE ordinance was <b>not</b> developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement.</p> <p><b>Date of Adoption:</b> <u>01/04/2011</u></p> <p>If the Ordinance was amended in 2015, please indicate why changes were necessary.</p>
<p>N/A</p>	
IV.B.3.b.5.ii, iii, iv, & v	<p>Use the space below to provide a summary of the implementation of procedures for receipt and consideration of complaints, tracing the source of an illicit discharge, removing the source of the illicit discharge and program evaluation and assessment as a result of removing sources of illicit discharges. Identify person(s) / Department and/or parties responsible for the implementation of this requirement.</p>

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

If an illicit discharge complaint is received, it would be recorded on a form completed by the complainant and a representative of the Engineering Department would perform a field investigation into the recorded complaint. The findings would be promptly reported back to the complainant and appropriate action taken. If there is evidence of an illicit connection, the owner of the property from where the illicit discharge is generated receives a violation letter and a time frame given for removing the connection. All work is inspected by either the Engineering Department or the Department of Public Works (DPW).

IV.B.3.b.5.vi	<p>Use the space below to provide summary of implementation of catch basin and manhole inspections for illicit connections and non-stormwater discharges. If the required measurable goal of inspecting all catch basins and manholes for this purpose was not accomplished, please indicate reasons why, the proposed schedule of completion and identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement. The operator must keep records of all inspections and corrective actions required and completed.</p> <p><b>Number of Catch Basins and Manholes Inspected for illicit connections/IDDE:</b> <u>1386</u></p> <p><b>Percent Complete:</b> <u>78%</u></p> <p><b>Date of Completion:</b> <u>ongoing</u></p>
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The Town's catch basins and drain manholes have been mapped, inspected and recorded annually by trained staff during routine cleaning and maintenance operations. A number of non-permitted connections were identified in previous years and the majority of these connections were confirmed as foundation and/or roof drains. Approximately 22% of the Town's remaining catch basins and drain manholes will require future inspections for illicit connections, many of which are in areas difficult to access. The engineering department will continue to conduct further inspections and investigations such as dye testing, CCTV pipe inspections and interviewing residents with suspected connections. Further action may be removing the connection if it is deemed a potential pollutant source or requiring retro-active permitting in accordance with the IDDE Ordinance. This measure has been effective but has not resulting in identification of illicit discharges.

IV.B.3.b.5.vii	<p>If dry weather surveys including field screening for non-stormwater flows and field tests of selected parameters and bacteria were not completed, indicate reasons why, proposed schedule for the completion of this measurable goal and person(s) / Department and/or parties for the completion of this requirement. Evaluate effectiveness of the implementation of this requirement. <b>The results of the dry weather survey investigations must be submitted to RIDEM electronically, if not already submitted or if revised since 2009, in the RIDEM-provided EXCEL Tables and should include visual observations for all outfalls during both the high and low water table timeframes, as well as sample results for those outfalls with flow. The EXCEL Tables <u>must</u> include a report of <u>all outfalls</u> and indicate the presence or absence of dry weather discharges.</b></p> <p><b>Number of Outfalls Surveyed once:</b> <u>238</u>                      <b>Number of Outfalls Surveyed twice:</b> <u>239</u></p> <p><b>Percent Complete:</b> <u>100%</u></p> <p><b>Date of Completion:</b> <u>10/23/2015 (updated)</u></p>
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The Engineering Department is responsible for the completion of dry weather surveys. The dry weather surveys have been effective to date but have not led to illicit discharge detection. The results of the inspections are listed in **Appendix E**.

IV.B.3.b.7	<p>Use the space below to provide a description of efforts and actions taken as a result of for coordinating with other physically interconnected MS4s, including State and federal owned or operated MS4s, when illicit discharges were detected or reported. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.</p>
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No illicit discharges have been detected or reported involving other physically interconnected MS4s. The Engineering Department is responsible for the implementation of this requirement.

IV.B.3.b.8	<p>Use the space below to provide a description of efforts and actions taken for the referral to RIDEM of non-stormwater discharges not authorized in accordance to Part I.B.3 of this permit or another appropriate RIPDES permit, which the operator has deemed appropriate to continue discharging to the MS4, for consideration of an appropriate permit. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.</p>
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No non-stormwater discharges were referred to RIDEM during the past year. The Smithfield Engineering Department is responsible for the implementation of this requirement.

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

IV.B.3.b.9	Use the space below to provide a description of efforts and actions taken to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste, as well as allowable non-stormwater discharges identified as significant contributors of pollutants. Include a description on how this activity was coordinated with the public education minimum measure and the pollution prevention/good housekeeping minimum measure programs. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.
<p>These opportunities were posted at the Smithfield Town Hall informing residents of the following:</p> <ul style="list-style-type: none"> <li>• Public notices for trash, recycling and other waste disposal are posted on the Town’s website.</li> <li>• An IDDE Ordinance which lists allowable non-stormwater discharges and hazards associated with illicit discharges.</li> </ul> <p>The efforts taken to inform the general public about the hazards with illegal discharges and improper disposal of waste include the efforts previously mentioned under sections IV.B.1.b.1 and IV.B.2.b.2.ii. Specifically, the “10 Things You Can Do to Improve Water Quality in Rhode Island”, “10 Things You Can Do to Prevent Stormwater Runoff Pollution”, “How to Dispose of Medicines Properly” and “After the Storm”, brochures includes information on minimizing the use of hazardous products and how to properly dispose of hazardous products. The information is posted on the Town Engineer webpage and at the Town Hall.</p>	
<p><b>Additional Measurable Goals and Activities</b></p> <p>The Smithfield Engineering Department installed and maintains “No Dumping – Drains to Waterways” storm drain markers on over 750 catch basins throughout the Town.</p> <p>The location of Smithfield’s MS4 structures has been made available for the public to view online at <a href="https://smithfieldri.mapgeo.io">https://smithfieldri.mapgeo.io</a></p>	

**SECTION II.A Other Reporting Requirements - Illicit Discharge Investigation and System Mapping (Part IV.G.2.m)**

# of Illicit Discharges Identified in 2015: 1	# of Illicit Discharges Tracked in 2015: 2
# of Illicit Discharges Eliminated in 2015: 2	# of Complaints Received: 0
# of Complaints Investigated: 0	# of Violations Issued: 1
# of Violations Resolved: 2	# of Unresolved Violations Referred to RIDEM: 0
Total # of Illicit Discharges Identified to Date (since 2003): 15	Total # of Illicit Discharges remaining unresolved at the end of 2015: 0
<p>Summary of Enforcement Actions:</p> <ol style="list-style-type: none"> <li>1. A property owner was discharging laundry waste water to a stream. The property owner was ordered to cease the illicit discharge and disconnect. The matter was fully resolved.</li> <li>2. Floor cleaning detergent and waste water was found dumped through a grate into a catch basin. The violation was immediately resolved upon notification.</li> </ol>	
<p>Extent to which the MS4 system has been mapped: Smithfield’s MS4 system has been mapped at 100% complete.</p> <p>Total # of Outfalls Identified and Mapped to date: 239 (Some mapped outfalls outside of Smithfield’s MS4 were excluded)</p>	

**SECTION II.B Interconnections (Parts IV.G.2.k and IV.G.2.l)**

Interconnection:	Date Found:	Location:	Name of Connectee:	Originating Source:	Planned and Coordinated Efforts and Activities with Connectee:
<b>See Appendix F for a list of interconnections</b>					



**MINIMUM CONTROL MEASURE #4:  
CONSTRUCTION SITE STORMWATER RUNOFF CONTROL  
(Part IV.B.4 General Permit)**

**SECTION I. OVERALL EVALUATION:**

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

Include information relevant to the implementation of each measurable goal, such as activities implemented to support the review, issuance and tracking of permits, inspections and receipt of complaints. Discuss 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.)**

**Responsible Party Contact Name:** Mark Conboy, Assistant Town Engineer

**Phone:** (401) 233-1041 **Email:** [mconboy@smithfieldri.com](mailto:mconboy@smithfieldri.com)

IV.B.4.b.1	<p>Indicate if the Sediment and Erosion Control and Control of Other Wastes at Construction Sites ordinance was <b>not</b> developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement.</p> <p><b>Date of Adoption:</b> <u>10/27/1987</u></p> <p>If the Ordinance was amended in 2015, please indicate why changes were necessary. <b>Please also indicate if amendments have been made based on the 2010 RI Stormwater Design and Installation Standards Manual, and provide references to the amended portions of the local codes/ordinances.</b></p>
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No amendments have been made based on the 2010 RI Stormwater Design and Installation Standards Manual.

IV.B.4.b.6	Use the space below to describe actions taken as a result of receipt and consideration of information submitted by the public.
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No information was submitted to the public.

IV.B.4.b.8	Use the space below to describe activities and actions taken as a result of referring to the State non-compliant construction site operators. The operator may rely on the Department for assistance in enforcing the provisions of the RIPDES General Permit for Stormwater Discharges Associated with Construction Activity to the MS4 if the operator of the construction site fails to comply with the local and State requirements of the permit and the non-compliance results or has the potential to result in significant adverse environmental impacts.
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No referrals were submitted to the State for assistance in enforcing provision of the RIPDES General Permit for Stormwater Discharge Associated with Construction Activity to the MS4 during the 2015 reporting year.

Additional Measurable Goals and Activities  
N/A

**CONSTRUCTION SITE STORMWATER RUNOFF CONTROL cont'd**

**SECTION II. A - Plan and SWPPP/SESC Plan Reviews during Year 12 (2015), Part IV.B.4.b.2:** Issuance of permits and/or implementation of policies and procedures for all construction projects resulting in land disturbance of greater than 1 acre.  
**Part IV.B.4.b.4:** Review 100% of plans and SWPPPs/SESC Plans for construction projects resulting in land disturbance of 1-5 acres must be conducted by adequately trained personnel and incorporate consideration of potential water quality impacts.

# of Construction Reviews completed: <u>3</u> # of Permits/Authorizations issued: <u>3</u> % of Total: <u>100%</u>	
Summary of Reviews and Findings, include an evaluation of the effectiveness of the program. Identify person(s) /Department and/or parties responsible for the implementation of this requirement.	
For each project resulting in land disturbances greater than ½ acre, a Smithfield Soil Erosion Permit Application with detailed site plans and a drainage report prepared by a professional engineer in the State of Rhode Island was required. A comprehensive review is then completed by the Engineering Department and final Soil Erosion Approval is granted by the Soil Erosion Committee. This practice has been in place since 1987 and is very effective. Responsible party is the Engineering Department and Soil Erosion Committee.	

**SECTION II.B - Erosion and Sediment Control Inspections during Year 12 (2015), Parts IV.G.2.n and IV.B.4.b.7:** Inspection of 100% of all construction projects within the regulated area that discharge or have the potential to discharge to the MS4 (the program must include two inspections of all construction sites, first inspection to be conducted during construction for compliance of the Erosion and Sediment controls at the site, the second to be conducted after the final stabilization of the site).

# of Active Construction Projects: 6	
# of Site Inspections: 200+	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions, include an evaluation of the effectiveness of the program. Identify person(s) /Department and/or parties responsible for the implementation of this requirement.	
The Town Engineer's Office inspects construction sites on a weekly basis and no violations were issued this year for projects resulting in land disturbance of greater than 1 acre. 10 violations were issued for projects resulting in land disturbance of less than 1 acre and most of the violations were due to erosion controls not being installed or properly maintained. Property owners who receive violation letters are subject to Section 2 of the Soil Erosion and Sediment Control Ordinance. Most property owners who receive a violation letter work from the Town to come into compliance with the requirements of the SESC Ordinance. This has been very effective since the creation of the SESC Ordinance in 1987.	



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

**SECTION I. OVERALL EVALUATION:**

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

Include information relevant to the implementation of each measurable goal, such as activities implemented to support the review, issuance and tracking of permits, inspections and receipt of complaints, etc. Please indicate if any projects have incorporated the use of Low Impact Development techniques. Discuss 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.)**

**Responsible Party Contact Name:** Mark Conboy, Assistant Town Engineer

**Phone:** (401) 233-1041 **Email:** [mconboy@smithfieldri.com](mailto:mconboy@smithfieldri.com)

IV.B.5.b.5 Use the space below to describe activities and actions taken to coordinate with existing State programs requiring post-construction stormwater management.

During the review/approval process for a development, long term BMP maintenance schedules are required to be included as part of the approval. The maintenance schedules are developed in accordance with current editions of the Rhode Island Stormwater Design and Installation Standards Manual. The engineering department performs inspections of these facilities. If they are not in compliance, notification is sent to the property owner requiring maintenance of the BMP. If no action is taken, the issue would be referred to the appropriate state agency.

IV.B.5.b.6 Use the space below to describe actions taken for the referral to RIDEM of new discharges of stormwater associated with industrial activity as defined in RIPDES Rule 31(b)(15) (the operator must implement procedures to identify new activities that require permitting, notify RIDEM, and refer facilities with new stormwater discharges associated with industrial activity to ensure that facilities will obtain the proper permits).

Any new land development or subdivision projects are required to receive approvals from RIDEM for stormwater controls by the Planning Board in accordance with the Smithfield Land Development and Subdivision Regulations in addition to the SESC Ordinance. No development can obtain approvals from the Town until applicants have met all the requirements listed in the Smithfield Land Development and Subdivision Regulations. No specific referrals to RIDEM for new discharges of stormwater associated with industrial activity were made in 2015.

IV.B.5.b.9 Indicate if the Post-Construction Runoff from New Development and Redevelopment Ordinance was **not** developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement. **Date of Adoption: 10/27/1987, Amended 6/6/2000 (Soil Erosion and Sediment Control Ordinance)**  
If the Ordinance was amended in 2015, please indicate why changes were necessary. **Please also indicate if amendments have been made based on the 2010 RI Stormwater Design and Installation Standards Manual, and provide references to the amended portions of the local codes/ordinances.**

The Town has in place a combined construction and post-construction soil erosion and sediment control ordinance which includes appropriate provisions for stormwater management. No amendments have been made based on the 2010 RI Stormwater Design and Installation Standards Manual, however, the Town is in the process of updating the ordinance to include a separate Post-Construction Runoff Ordinance with amendments based on the latest RI Stormwater Design and Installation Standards Manual.

IV.B.5.b.12 Use the space below to describe activities and actions taken to identify existing stormwater structural BMPs discharging to the MS4 with a goal of ensuring long term O&M of the BMPs.

The Smithfield Engineering Department has performed an extensive investigation of its MS4. Field investigations included identifying all MS4 structures, pipes, outfalls and structural BMPs with current staff and the addition of a summer college intern. The field survey included locating the MS4 features using a handheld Trimble GPS unit, completing a thorough inspection of the MS4 component for function, maintenance, structural integrity, component sizes, interconnections and presence of dry weather flows. This information is being edited and compiled to develop maintenance spreadsheets and an effective and efficient long term maintenance schedule.

Additional Measurable Goals and Activities  
N/A

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

**SECTION II.A. - Plan and SWPPP/SESC Plan Reviews during Year 12 (2015), Part IV.B.5.b.4:** Review 100% of post-construction BMPs for the control of stormwater runoff from new development and redevelopment projects that result in discharges to the MS4 which incorporates consideration of potential water quality impacts (the program requires reviewing 100% of plans for development projects greater than 1 acre, not reviewed by other State programs).

# of Post-Construction Reviews completed: <u>3</u> # of Permits/Authorizations issued: <u>3</u> % of Total: <u>100%</u>
Summary of Reviews and Finding, include an evaluation of the effectiveness of the program. Identify person(s) /Department and/or parties responsible for the implementation of this requirement.  The Smithfield engineering department conducts an intensive review of all projects which require BMPs for post-construction stormwater control and water quality. Smithfield requires the drainage report to include design calculations and long term maintenance schedules for project specific BMPs. During the review and permitting process, several revisions are often required to fulfill the requirements of the SWPPP and ensure control of stormwater runoff and water quality. The Smithfield Engineering Department is the responsible party.

**SECTION II.B. - Post Construction Inspections during Year 12 (2015), Parts IV.G.2.o and IV.B.5.b.10 - Proper Installation of Structural BMPs:** Inspection of BMPs, to ensure these are constructed in accordance with the approved plans (the program must include inspection of 100% of all development greater than one acre within the regulated areas that result in discharges to the MS4 regardless of whom performs the review).

# of Active Construction Projects: 6	
# of Site Inspections for proper Installation of BMPs: 12+	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions:  None required in 2015.	

**SECTION II.C. - Post Construction Inspections during Year 12 (2015), Parts IV.G.2.p and IV.B.5.b.11 - Proper Operation and Maintenance of Structural BMPs:** Describe activities and actions taken to track required Operations and Maintenance (O&M) actions for site inspections and enforcement of the O&M of structural BMPs. Tracking of required O&M actions for site inspections and enforcement of the O&M of structural BMPs.

# of Site Inspections for proper O&M of BMPs: 60	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Activities and Enforcement Actions. Evaluate the effectiveness of the Program in minimizing water quality impacts. Identify person(s) /Department and/or parties responsible for the implementation of this requirement.  BMPs are inspected on an annual basis. Many of the older BMPs are in need of maintenance. Since the Town does not have enough staff to bring each of these older BMPs into compliance within a single reporting year, priority is given to those BMPs which may jeopardize their ability to effectively control stormwater flows and pollution control.  BMPs which are not owned or operated by the Town are inspected upon project completion for compliance with the design plans. BMP owners are issued a Notice of Violation for BMPs not in compliance with the approved design and any pending approvals are suspended until compliance is met. Fines may be rendered if necessary for compliance.  The Town Engineering Department and Public Works are the responsible parties.	

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

Strategies being implemented to ensure long-term Operation and Maintenance (O&M) of privately-owned BMPs, check all that apply in your municipality/MS4:

- None
- Ordinances or by-laws identify BMP inspection responsible party
- Ordinances or by-laws identify BMP maintenance responsible party
- Ordinances or by-laws identify BMP inspections and maintenance requirements
- Ordinances or by-laws provide for easements or covenants for inspections and maintenance
- Ordinances or by-laws require for every constructed BMP an inspections and maintenance agreement
- Ordinances or by-laws contain requirements for documenting and detailing inspections
- Ordinances or by-laws contain requirements for documenting and detailing maintenance
- Ordinances or by-laws contain authority to enforce for lack of maintenance or BMP failure
- The MS4 is responsible for inspections of all privately-owned BMPs
- The MS4 is responsible for maintenance of all privately-owned BMPs
- Establishment of escrow account for use in case of failure of BMP
- Other strategies to ensure long-term O&M of privately-owned BMPs, describe:

Long term O&M of privately owned BMP's are discerned on individual SWMP's at the time of Planning Board approval as designated by design engineer's specification in compliance with the RISDISM requirements applicable at time of approval.

Do you have an inventory of privately owned BMPs?  YES  NO

Do you have a system for tracking:

- |                                                             |                                         |                                        |
|-------------------------------------------------------------|-----------------------------------------|----------------------------------------|
| a. Agreements and arrangements to ensure O&M of BMPs?       | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| b. Inspections?                                             | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| c. Maintenance plans and schedules of privately-owned BMPs? | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| d. Complaints?                                              | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| e. Non-Compliance?                                          | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| f. Enforcement actions?                                     | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |

Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track post-construction BMPs, inspections, and maintenance?  YES  NO

If yes, please elaborate on which tools are used:

The Town uses spreadsheets to track inspections and maintenance of all Town owned and maintained BMPs.

*NOTE: BMP maintenance tasks can be a great way to involve and educate the community to their purpose and function. BMPs have the potential to create a highly interactive environment for community members and volunteers to get involved.*



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

**SECTION I. OVERALL EVALUATION:**

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

Include information relevant to the implementation of each measurable goal, such as activities and practices used to address on-going requirements, and personnel responsible. Discuss 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.)**

**Responsible Party Contact Name:** Mark Conboy, Assistant Town Engineer

**Phone:** (401) 233-1041 **Email:** mconboy@smithfieldri.com

IV.B.6.b.1.i Use the space below to describe activities and actions taken to identify structural BMPs owned or operated by the small MS4 operator (the program must include identification and listing of the specific location and a description of all structural BMPs in the SWMPP and update the information in the Annual Report). Evaluate appropriateness and effectiveness of this requirement.

Do you have an inventory of MS4-owned BMPs?  YES  NO

All structural BMPs owned or operated by the Town have been GIS located, identified and inspected annually. All updated information has been included in the Annual Report. The appropriateness and effectiveness of this requirement has led to improved BMP inventory evaluation and records.

IV.B.6.b.1.ii Use the space below to describe activities and actions taken for inspections, cleaning and repair of detention/retention basins, storm sewers and catch basins with appropriate scheduling given intensity and type of use in the catchment area. Evaluate appropriateness and effectiveness of this requirement.

Do you have a system for tracking:

- a. Inspection schedules of MS4-owned BMPs?  YES  NO
- b. Maintenance/cleaning schedules of MS4-owned BMPs?  YES  NO
- c. Repairs, corrective actions needed?  YES  NO
- d. Complaints?  YES  NO

Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track stormwater BMPs, inspections, and maintenance?  YES  NO

BMP inspections are performed by the Engineering Department on an annual basis and recorded using spreadsheets. Storm sewers and catch basins are inspected by the Public Works Department during annual cleanings. All information is recorded using inspection sheets and tracked with use of spreadsheets. Maintenance issues identified during the catch basin cleaning are reported to the DPW director and are given a priority status dependent upon extent of disrepair. Many of the older detention ponds were found to be in need of maintenance. Since the Town does not have enough staff to bring each of these BMPs into compliance within a single reporting year, priority is given to those BMPs which may jeopardize their ability to effectively control stormwater flows and pollution control. The appropriateness and effectiveness of this requirement is very good and has helped improve maintenance efficiency.



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

IV.B.6.b.1.vii	Use the space below to describe activities and actions taken for controls to reduce floatables and other pollutants from the MS4. Evaluate appropriateness and effectiveness of this requirement.
<p>Street sweeping and catch basin cleaning are an effective means to reducing floatables which would otherwise discharge into the MS4. Other activities include the use of oil/water separators in catch basins for all new developments and the use of public trash receptacles at all public facilities including Deerfield Park. In addition, the Town provides trash and recyclable collection on a weekly basis and has an oil igloo for town residents to properly dispose of used motor oil. The recreation department maintains the public parks and keeps them free of debris and spills. Public Works cleans catch basins and sweeps the roadways annually and when problems arise. This requirement is both appropriate and effective.</p>	
IV.B.6.b.1.viii	<p>Use the space below to describe the method for disposal of waste removed from MS4s and waste from other municipal operations, including accumulated sediments, floatables and other debris and methods for record-keeping and tracking of this information.</p> <p>Do you have a system for tracking actions to remove and dispose of waste?    <input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p>
<p>The MS4 waste is utilized in a few areas of the town. Specifically, street sweeping material is used in a small part of the road sub-base re-grading, local drainage projects and as shoulder repair material in non-residential routes or areas. The remaining street sweeping sediments are stockpiled in an upland level area at the DPW facility. Trash is collected regularly from the public trash receptacles and discarded in dumpsters which are emptied by the Town's contracted waste collector. Records are kept for sweeping, catch basin cleaning and trash services.</p>	
IV.B.6.b.4 and IV.B.6.b.5	<p>Use the space below to describe and indicate activities and corrective actions for the evaluation of compliance. This evaluation must include visual quarterly monitoring; routine visual inspections of designated equipment, processes, and material handling areas for evidence of, or the potential for, pollutants entering the drainage system or point source discharges to a waters of the State; and inspection of the entire facility at least once a year for evidence of pollution, evaluation of BMPs that have been implemented, and inspection of equipment. A Compliance Evaluation report summarizing the scope of the inspection, personnel making the inspection, major observations related to the implementation of the Stormwater Management Plan (formerly known as a Stormwater Pollution Prevention Plan), and any actions taken to amend the Plan must be kept for record-keeping purposes.</p>
<p>The DPW has standard operating procedures in place for material storage, use and disposal in addition to procedures for vehicle washing and oil changing stations.</p> <ul style="list-style-type: none"> <li>• Winter road salt and sand mix is stored in an enclosed salt barn which reduces polluted runoff and sediments into adjacent wetlands. A loader is the equipment used for this operation.</li> <li>• Road sweepings are stored in a protected upland area away from storm flow, wetlands or drainage basins. (Elgin sweeper &amp; loader is equipment used)</li> <li>• Waste oil is stored in an "Oil Igloo" within a shed which is maintained regularly.</li> <li>• The stormwater facilities are cleaned with the use of a vactor truck and pipes are water jetted annually.</li> <li>• Vehicles and equipment are stored and maintained within an enclosed garage which reduces pollutant laden runoff from maintenance/spill activities.</li> <li>• The DPW fueling station is covered with a canopy and spill protection measures are in place, such as sorbent towels and/or granular sorbent material.</li> </ul> <p>Though these areas are kept clean and routinely maintained, written standard operating procedures and inspection records have not been finalized.</p>	
IV.B.6.b.6	<p>Use the space below to describe all employee training programs used to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance for the past calendar year, including staff municipal participation in the URI NEMO stormwater public education and outreach program and all in-house training conducted by municipality or other parties. Evaluate appropriateness and effectiveness of this requirement.</p> <p>How many stormwater management trainings have been provided to <i>municipal employees</i> during this reporting period? <u>None</u></p> <p>What was the date of the last training? <u>10/20/2014</u></p> <p>How many <i>municipal employees</i> have been trained in this reporting period? <u>None</u></p> <p>What percent of <i>municipal employees</i> in relevant positions and departments receive stormwater management training? <u>100%</u></p>

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

Town employees are encouraged to attend all applicable training programs provided by URI NEMO, RIDEM, NRCS and other. Staff from the Town Engineer's Office attends a variety of training programs which focus on stormwater runoff control, pollution and erosion.

DPW and the recreation department have O&M procedures in place for all activities including material storage, vehicle wash, oil change stations and fertilizing of Town fields and lawns. This requirement is somewhat effective.

IV.B.6.b.7	Use the space below to describe actions taken to ensure that new flow management projects undertaken by the operator are assessed for potential water quality impacts and existing projects are assessed for incorporation of additional water quality protection devices or practices. Evaluate appropriateness and effectiveness of this requirement.
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All projects which propose stormwater mitigation and water quality are required to obtain RIDEM permitting prior to being reviewed by any department in the Town. Upon approval by RIDEM, the Town Engineer provides further review of the proposal to ensure that it is best suited for the site and that there will be no adverse impacts to the environment. The Town also encourages infiltration and groundwater recharge to be utilized as close as feasible in order to maintain original stormwater runoff conditions.

Additional Measurable Goals and Activities  
N/A

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

BMP ID:	Location:	Name of BMP Owner/Operator:	Description of BMP:
<b>See Appendix G for the Inventory List for Town maintained BMPs</b>			

**SECTION II.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:
<b>See Appendix H for the Outfall Discharge Inspection Report</b>				

**SECTION II.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).**

The Town is in the process of constructing building additions to the police station, a parking lot expansion and water quality BMP improvements which incorporate the use of pervious pavement and Cultec Recharger Chambers to promote infiltration and recharge.

**SECTION II.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).**

N/A



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

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**SECTION I. If you have been notified that discharges from your MS4 require non-structural or structural stormwater controls based on an approved TMDL or other water quality determination, please provide an assessment of the progress towards meeting the requirements for the control of stormwater identified in the approved TMDL (Part IV.G.2.d). Please indicate rationale for the activities chosen to address the pollutant of concern.**

This summary provides a general assessment of the progress Smithfield has made towards meeting the requirements for stormwater control as identified in the approved TMDL and Amendment No. 1 to the SWMPP for the Woonasquatucket River TMDL.

- Several publications were made available to Smithfield residents within the TMDL areas which discussed the contamination of the Woonasquatucket River. Many of the articles also highlighted causes, effects and acceptable limits of the pollution/contamination.
- The Smithfield Engineering Department maintains “No Dumping – Drains to Waterways” storm drain markers on over 750 catch basins throughout the Town of Smithfield.
- Earth Day 2015 focused on cleanup efforts in various areas within the Woonasquatucket River Watershed.
- All outfalls with Town jurisdiction within the Woonasquatucket River Watershed TMDL have been inspected during the 2015 reporting year.
- Two illicit discharges were eliminated in 2015.
- Approximately 2.8 miles of the Woonasquatucket Sewer Interceptor was cleaned to increase capacity and prevent sporadic sewage line blockages that may convey untreated sewage to storm drains.
- Many catch basins within the TMDL area have been cleaned of sediment, floatables and debris at least once in 2015.
- Smithfield contracted a vactor truck to clean and flush both Town and State drainage systems including the Woonasquatucket River Watershed TMDL areas.
- All Town roads which drain directly or indirectly into the Woonasquatucket River were swept and roadside shoulders were inspected for erosion within the Woonasquatucket River Watershed TMDL area.



## SPECIAL RESOURCE PROTECTION WATERS (SRPWs)

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**SECTION I.** In accordance with Rule 31(a)(5)(i)G of the *Regulations for the Rhode Island Pollutant Discharge Elimination System (RIPDES Regs)*, on or after March 10, 2008, any discharge from a small municipal separate storm sewer system to any Special Resource Protection Waters (SRPWs) or impaired water bodies within its jurisdiction must obtain permits if a waiver has not been granted in accordance to Rule 31(g)(5)(iii). A list of SRPWs can be found in Appendix D of the *RIDEM Water Quality Regulations* at this link:

<http://www.dem.ri.gov/pubs/regs/regs/water/h20q09a.pdf>

The 2008 303(d) Impaired Waters list can be found in Appendix G of the *2008 Integrated Water Quality Monitoring and Assessment Report* at this link: <http://www.dem.ri.gov/programs/benviron/water/quality/pdf/iwqmon08.pdf>

If you have discharges from your MS4 (regardless of its location) to any of the listed SRPWs or impaired waters (including impaired waters when a TMDL has not been approved), please provide an assessment of the progress towards expanding the MS4 Phase II Stormwater Program to include the discharges to the aforementioned waters and adapting the Six Minimum Control Measures to include the control of stormwater in these areas. Please indicate a rationale for the activities chosen to protect these waters. Please note that all of the measurable goals and BMPs required by the 2003 MS4 General Permit may not be applicable to these discharges.

There are no Special Resource Protection Waters (SRPWs) located within the Town of Smithfield as referenced in Appendix D of the RIDEM Water Quality Regulations.

RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034

# APPENDIX A

## PUBLIC EDUCATION

RIPDES PHASE II ANNUAL REPORT, YR 12  
TOWN OF SMITHFIELD, RI

**RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034**

**APPENDIX A: Public Education  
TABLE OF CONTENTS**

- “10 Simple Things You Can Do To Help Clean Rhode Island Waters” – Information provided by RIDEM to help reduce pollutants from entering local waterways.
- “Algae in Your Pond?” – Information on reducing the input of phosphorus from entering our waters.
- “5 Reasons Why Feeding Waterfowl Is Harmful” – Information provided by RIDEM on associated environmental degradation and water pollution.
- Lawn Fertilizer Poster displayed in Town Hall encouraging the public to use lawn fertilizer sparingly.
- Pet Waste Poster displayed in Town Hall encouraging the public to clean up pet waste.
- Car Washing Poster displayed in Town Hall encouraging the public not to wash their car in the street.
- Oil Leak Poster displayed in Town Hall encouraging the public fix automotive oil leaks.
- Failed Septic System Poster in Town Hall encouraging the public fix and maintain septic systems.
- “A Homeowner’s Guide to Septic Systems” – Information provided by the EPA illustrating proper septic system maintenance.
- Private Well Workshop – Public Announcements: Teaches proper maintenance, testing and good housekeeping practices for protecting private wells.
- “Wash Your Car the Right Way” by the EPA.
- “How to Dispose of Medicines Properly” by the EPA.
- “Protecting Water Quality from Agricultural Runoff” by the EPA.
- “After the Storm” by the EPA.
- “10 Things You Can Do to Prevent Stormwater Runoff Pollution” by the EPA.
- “What is Sediment Pollution?” by the EPA.
- “Bacteria Monitoring” by the University of Rhode Island.
- Dog Waste Clean Up signs posted at Town parks and trails.
- “No Dumping – Drains to Waterways” storm drain markers installed at several catch basins.
- “Draining Swimming Pools” – Educates on how to properly drain pool water (pamphlet is also mailed to property owners applying for new pool permits).
- “Waterfowl, Wildlife, Waste, and the Woonie” – Article published in the Smithfield Times.

# 10 THINGS YOU CAN DO TO IMPROVE WATER QUALITY IN RHODE ISLAND



There are many streams and rivers that flow through our backyards and drain into ponds, lakes, bays and ultimately the ocean. Pollutants such as animal feces, fertilizer, oil, hazardous waste, road sand, and grease on the land can be washed into our waters, but we can reduce this type of pollution. Here is a list of 10 things you can do to help clean our local waterways.



**1. Learn about** your local waters. Everyone lives in a **watershed**, which is the drainage area to a local waterbody (think of washing everything in a sink down the drain and the drain is your local river or stream). Figure out what waters are closest to you and where they flow. Learn about local animal life and plants that live in and around these waters. Check out DEM's website at [www.dem.ri.gov](http://www.dem.ri.gov) to find out more.



**2. Don't feed ducks!** Although you may enjoy feeding geese, ducks, gulls and other waterfowl, remember that they too contribute to the same type of pollution that limits swimming and shellfishing. One bird dropping can contaminate 10,000 gallons of water. Bread and other human food are bad for bird's digestive tracts too. Feeding waterfowl can also attract larger bird

populations and may cause some birds to stop migrating.



**3. Pick up** after your pets. Dog waste and feces from other warm-blooded animals pollute local waterways and are larger polluters than you may think. This type of pollution contributes to the closing of beaches and shellfish beds all over the state. Pick up your pet's waste and deposit it in a trash can.



**4. Inspect septic** systems. Approximately 1/3 of the state uses some form of septic system for sewage disposal. Failing septic systems or cesspools are a major source of pollution to ground water and local reservoirs. What you flush directly affects the water we drink and the waters where we fish, swim and boat. If you have a septic system, inspect it regularly, pump and repair it as needed. If you have a cesspool, replace it. For more information on maintaining a healthy septic system the **Septic System Checkup Handbook** is available online at [www.dem.ri.gov/pubs/regs/regs/water/isdsbook.pdf](http://www.dem.ri.gov/pubs/regs/regs/water/isdsbook.pdf).



**5. Avoid over-fertilizing** your lawn. During rainstorms, **nutrients** from lawn fertilizer can be washed off lawns and paved areas into local waters. This type of pollution contributes to **eutrophication**, a process that causes nuisance algal blooms and reduction of habitat and oxygen levels for

many aquatic organisms. This leads to a decline in fish and shellfish populations, and reduces the diversity of fish in our waters. Get your soil tested to see if it really needs more fertilizer and if so, use as little as necessary. Read the label on fertilizer packages, apply according to directions, and clean-up any fertilizer left on paved areas. Also, reduce your lawn area by planting native, more drought-tolerant plants that are better adapted for the environment, and can act as buffers to prevent runoff from your lawn. For more information and fact sheets, log onto the **University of Rhode Island Cooperative Extension Home\*A\*Syst** website at [www.uri.edu/ce/wq](http://www.uri.edu/ce/wq).



**6. Minimize** the use of hazardous products and **recycle** as much as possible. Cleaning and other household products contain many hazardous chemicals. Try to use the least harmful products available. Learn how to dispose of household hazardous chemicals properly by calling the **RI Resource Recovery program** at 942-1430 x 241 or visit them online at [www.rirrc.org](http://www.rirrc.org). The RIRRC website also has recycling information. Recycling helps to conserve natural resources and reduces the amount of refuse sent to landfills. Start a compost bin and buy products made with or packaged in recycled material to reduce waste further. Consult your town for **recycling** guidelines and check the RIRRC website listed above.



## 7. Get involved. Volunteer.

Help with clean-up efforts or be a volunteer water monitor. Participate in local activities that benefit the environment. Find out if there is a watershed council near you. A list is available at [www.ririvers.org](http://www.ririvers.org). If your watershed does not have an association, start one! Other statewide non-profit organizations also need volunteers. For more information check out the websites for Save the Bay at [www.savebay.org](http://www.savebay.org) and URI's Watershed Watch at [www.uri.edu/ce/wq/](http://www.uri.edu/ce/wq/). Every little bit you do counts! **Speak out.** Attend public meetings that pertain to water quality. Your participation makes the statement that your community is concerned about local waterways. Public involvement is imperative if your local and state public servants are to help you make large-scale improvements in your watershed. If you see a problem in your area or want something done, say something! If you don't have time to attend meetings, call or contact a city or town official, a state representative, or DEM.



## 8. Conserve water.

If you are connected to a public sewer, conserving water will help reduce the discharge from your wastewater treatment facility into local waters. Water conservation helps prevent septic system failures. To learn more about conserving water, visit the RI Water Resources Board at [www.wrb.state.ri.us](http://www.wrb.state.ri.us).



**9. Pump it, don't dump it!** If you own a sailboat or a motorboat have your holding tank emptied at one of the local pumpout stations around Rhode Island. For a list of **pumpout locations** call 222-3961 or visit [www.dem.ri.gov/maps/mapfile/pumpmap.pdf](http://www.dem.ri.gov/maps/mapfile/pumpmap.pdf). Also, if you have an old engine on your motor boat, look into updating it to a new 2-cycle or 4-cycle engine. They are cleaner for the environment and more efficient, which means they are lighter on your wallet!



## 10. Get out!

Get out on the water. Swim, sail, surf, kayak, fish, windsurf, boat, shellfish, go birding or walk along the shore. Explore the waters near your home or visit other parts of the state. For information about beach closures, contact the Department of Health **Beach Hotline** at 222-2751 or [www.health.state.ri.us/topics/bathing.php](http://www.health.state.ri.us/topics/bathing.php). For information on **shellfish bed closures**, call **DEM** at 222-3961. Make it a point to enjoy the benefits of living near the water, and while you're out there keep an eye out for problems or pollution sources. **To file an environmental complaint with DEM** (which can be anonymous), call: 222-1360.

Rhode Island Department of Environmental Management  
Office of Water Resources  
235 Promenade Street, Providence, RI 02908-5767  
Phone (401) 222-6800 • [www.dem.ri.gov/](http://www.dem.ri.gov/)



V. Masson  
Updated May 2007

# 10

# SIMPLE THINGS YOU CAN DO TO HELP CLEAN RHODE ISLAND WATERS





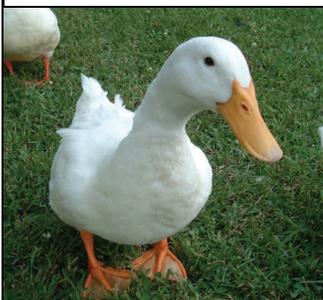
# Algae in Your Pond?

Has your blue lake turned green?



Algae are a natural part of lake ecosystems and serve an important role in the aquatic food chain. However, excessive algae growth, called an algae bloom, can deteriorate water quality and aesthetics, and impede recreational activities due to unpleasant sights and odors. Algae blooms may also harm fish and other aquatic life by depleting oxygen, and some may produce toxins dangerous to humans and animals. Algal growth depends on the availability of sunlight and nutrients. When enough sunlight is available, excess nutrients, especially phosphorus, can trigger an algae bloom. Although nutrients are deposited naturally from wildlife waste and plant decay, human activities have substantially increased the amount of phosphorus entering our rivers and lakes. Treating the lake with chemical algaecides may provide short-term relief but does not control the source of the problem, requiring repeated treatments that are expensive and may have adverse effects on our environment. An effective, long-term and cost-efficient approach to controlling algae includes reducing the amount of phosphorus entering our waters- and you can help!

## Here are some ways you can reduce the input of phosphorus to your lake:



### Don't Feed the Ducks

**Why?** Feeding ducks and geese attracts unnaturally large flocks that are a source of nutrients to your lake. In addition, their waste litters lawns and docks and harbors disease-causing bacteria that can contaminate your lake and cause problems such as swimmer's itch.

- Do not feed ducks and geese- it's against the law!
- Plant shrubs and bushes along the shoreline to keep geese off your lawn

For more information about why feeding waterfowl is harmful: [www.dem.ri.gov/programs/bnatres/fishwild/pdf/dontfeed.pdf](http://www.dem.ri.gov/programs/bnatres/fishwild/pdf/dontfeed.pdf).



### Reduce the Use of Fertilizer

**Why?** Plant foods and lawn fertilizers often contain phosphorus, but most northeastern lawns have enough phosphorus. When lawns are over-fertilized, rain washes excess phosphorus directly into your lake.

- Have your soil tested to determine how much fertilizer your lawn needs
- Avoid spreading fertilizer just before a heavy rain
- Use slow/timed-release or phosphorus-free fertilizers
- Sweep up fertilizer off pavement, do not rinse into drains

For information on soil testing: [www.uri.edu/ce/factsheets/sheets/soiltest.html](http://www.uri.edu/ce/factsheets/sheets/soiltest.html)  
More information on fertilizers and water quality: [www.lawntolake.org](http://www.lawntolake.org)



### Pick Up Pet Waste

**Why?** Like waterfowl, pet waste contains phosphorus. Rain may wash pet waste that is not picked up into your lake, adding nutrients and bacteria.

- Remove pet waste from your yard
- Clean up after your pet during walks in your neighborhood

For more information about pet waste and water quality: <http://www.conservect.org/ctrivercoastal/petwaste/tabid/317/default.aspx>



### Maintain Septic Systems

**Why?** Septic systems that are overloaded or leaking and outdated cesspools can leach human waste, adding nutrients and bacteria to your lake.

- Replace your cesspool with a properly designed septic system
- Have your septic system regularly inspected and pumped
- Check for plumbing leaks and conserve water to avoid overloading
- Avoid harsh chemicals that harm bacteria in the system, such as bleach products and drain cleaners containing lye or acid
- Minimize use of garbage disposals to avoid adding excess solids and grease

More information: [www.dem.ri.gov/pubs/regs/regs/water/isdsbook.pdf](http://www.dem.ri.gov/pubs/regs/regs/water/isdsbook.pdf)



## Adopt “Greener” Mowing Methods

**Why?** By altering how you mow your lawn you can reduce the amount of water and fertilizer needed, preventing nutrients from leaching into your lake and saving you time and money spent maintaining your lawn.

- Set your mower blade height to 3 inches; this creates a healthier root system that needs less water and fertilizer and can shade out some weeds
- Always Leave grass clippings on the lawn to allow water and nutrients to return to the soil and help grass retain moisture

For more information on better mowing:  
[www.uri.edu/ce/factsheets/sheets/lawnmow.html](http://www.uri.edu/ce/factsheets/sheets/lawnmow.html)



## Choose Native & Drought Tolerant Plants

**Why?** Choosing and watering your plants wisely can reduce the amount of water and fertilizer needed, saving you time and energy and reducing the potential for nutrients leaching into your lake.

- Select native plants for your landscaping
- Plant appropriate turf grasses; red fescue and chewing fescue are drought-tolerant. Tall and fine fescues require less fertilizer.

Information on choosing sustainable plants and turf grasses:  
[www.uri.edu/ce/factsheets/index.htm](http://www.uri.edu/ce/factsheets/index.htm)  
A list of native landscaping plants and nurseries that sell natives is available from the Rhode Island Wild Plant Society at [www.riwps.org](http://www.riwps.org)



## Reduce Rainwater Runoff

**Why?** Rain water runoff from pavement and rooftops flowing over surfaces transports nutrients and other pollutants into your lake. Minimizing the amount of runoff can help keep your lake clean.

- Direct gutter downspouts from roof into a rain garden or rain barrel
- Maximize the amount of shrubs, trees and groundcover on your property to absorb rainwater, especially around driveways and pavement
- Create winding paths of gravel, stone or grass instead of direct paths of dirt or pavement to the shoreline to prevent erosion and reduce runoff
- Place straw over gardens and newly planted grass to prevent soil from being washed away

Information on planting a rain garden available from the Northern RI Conservation District at [www.nricd.org/raingarden.htm](http://www.nricd.org/raingarden.htm) and at [www.uri.edu/ce/healthylandscapes/raingarden.htm](http://www.uri.edu/ce/healthylandscapes/raingarden.htm)



## Create a Vegetated Buffer

**Why?** Vegetated buffers along the shoreline help stabilize the bank, prevent erosion and filter out nutrients and pollutants. Buffers also improve the aesthetic value of your property and discourage geese from grazing on your lawn. Proper selection and placement of plants preserves lake views, and small paths and docks through the buffer allow access to the water.

- Avoid mowing down to the shoreline, and leave trees and shrubs in place
- Where no vegetation currently exists, plant native trees and shrubs along the shoreline (subject to conditions of RI wetlands Rule 6.18; see below)
- The bigger the better; a 15 ft buffer can remove around 50% of phosphorus, and larger buffers remove more nutrients

More information on creating and maintaining a buffer:  
[www.vtwaterquality.org/lakes/docs/lpseries/lp\\_lpseries3.pdf](http://www.vtwaterquality.org/lakes/docs/lpseries/lp_lpseries3.pdf)  
Rules and regulations regarding freshwater wetlands:  
<http://www.dem.ri.gov/pubs/regs/regs/water/wetl09a.pdf>

Implementing these easy and inexpensive methods to lower the amount of phosphorus entering your lake will help prevent future algae blooms and reduce the need for chemical algaecide treatments.



Rhode Island Department of  
Environmental Management  
Office of Water Resources  
235 Promenade Street  
Providence, RI 02908

Additional information:

URI Healthy Landscapes: [www.uri.edu/ce/healthylandscapes/index.html](http://www.uri.edu/ce/healthylandscapes/index.html)

Scituate Reservoir Watershed Education Program: [www.landwaterconnection.org](http://www.landwaterconnection.org)



## 4. Environmental degradation

Waterfowl naturally congregate in wetlands, when and where natural foods are plentiful. However, when hand feeding occurs, the over-concentration of birds may ultimately cause overgrazing and degradation to the landscape.

High concentrations of birds cause:

- ◇ Overgrazing of vegetation leading to soil erosion.
- ◇ Degradation of the landscape making it undesirable for other species and unsightly for humans.
- ◇ Unsanitary conditions due to large quantities of bird feces.



## 5. Water pollution

People will often feed ducks or swans at the local pond, or gulls at the beach. This not only causes a nuisance situation with birds begging for and stealing food, but also contributes significantly to water pollution in the form of *fecal coliform bacteria*. High levels of fecal coliform bacteria in the water cause beach closures and the prohibition of shellfishing in certain areas. This pollution directly affects the enjoyment of our local waters and impairs the livelihood of local shellfishermen.

Feeding the birds can:

- ◇ Cause gulls to be a nuisance by begging and stealing food and garbage.
- ◇ Contribute to beach closures.
- ◇ Contribute to the prohibition of shellfishing in coastal areas.



## Feeding Waterfowl is Banned in Rhode Island

As a result of the harm that hand feeding wild waterfowl causes to both the waterfowl and the environment, DEM banned the feeding of wild waterfowl statewide in 2003.

### When people feed waterfowl

- ◇ Waterfowl can become concentrated in small urban environments that are not capable of supporting large flocks.
- ◇ Waterfowl may become malnourished and risks of disease increase.
- ◇ Birds can become nuisance animals at feeding sites and other areas where they congregate.
- ◇ Unnatural concentrations of waterfowl can cause overgrazing and erosion, which may be undesirable for other species.
- ◇ High concentrations of fecal coliform bacteria contribute to unsanitary conditions and to closures of beaches and shellfish beds.

For more information please call:



Rhode Island Department of Environmental Management.



[www.dem.ri.gov](http://www.dem.ri.gov)

Waterfowl questions? Contact:  
Division of Fish and Wildlife (401) 789-0281

Water quality concerns? Contact:  
Office of Water Resources (401) 222-4700

WRITTEN AND PREPARED BY: MICHAEL HUGUENIN,  
CHARLES ALLIN AND VERONICA MASSON

# 5 REASONS WHY FEEDING WATERFOWL IS HARMFUL



PHOTO:GLEN SMART/ USFWS

People have always enjoyed feeding gulls, geese, ducks or swans at beaches and parks. What they might not realize is that feeding these animals is detrimental to the birds and the environment in many significant ways. As a result of the harm it causes, a law was passed that prohibits feeding wild waterfowl. Please read on to learn more about the harmful effects of hand feeding waterfowl.

## Birds have amazing survival skills

Waterfowl have an incredible ability to survive and avoid harsh weather conditions. They migrate hundreds of miles south to a warmer climate for the winter where food is abundant, or simply endure the harsh winter weather in northern areas. Many species of migratory and resident waterfowl spend the winter in Rhode Island. For all waterfowl, the abundance of naturally occurring food and the quality of their diet are the main driving forces behind the birds' ability to survive.



### Food quality is critical

Waterfowl require proper nutrition to survive New England winters. The diet of a young bird during its first year of life must be high in essential fats, proteins and nutrients to ensure proper development. Adults need a nutrient rich diet in order to replace feathers, and recondition their bodies after migration and during breeding cycles. People unknowingly harm waterfowl by hand feeding food that is low in nutritional value.

### High nutrition foods include:

Insects,

Grasses, and

Submerged Aquatic Plants



### Low nutrition foods include:

Bread,

Crackers,

Popcorn, and

Pastries



## Problems associated with feeding waterfowl include:



- ◇ Malnutrition
- ◇ Dependency
- ◇ Disease
- ◇ Water pollution
- ◇ Environmental degradation

Each problem is described below in detail.



### 1. Malnutrition

Through evolution wildlife species have developed skills to obtain food that contains the essential nutrients needed to survive, reproduce and live a healthy life. These skills help maintain a balance between animals and their natural habitat. This balance is compromised by hand feeding, which is physically harmful to birds and is one of the primary causes of malnutrition. Malnutrition is caused by the types of food that people hand feed to the birds. Foods such as bread and crackers don't provide the necessary energy and nutrients for proper health, and energy is wasted in digesting these foods. Birds become dependent upon humans because more poor quality foods are needed to make up the difference.

Malnutrition leads to:

- ◇ Low energy and muscle deterioration.
- ◇ Development of deformed wings in young birds.
- ◇ Loss of flight later in life.
- ◇ Lowered ability to avoid predation.
- ◇ Decrease in successful reproduction.
- ◇ Lowered life expectancy.



## 2. Dependency

Waterfowl, particularly Canada geese and mallards, will congregate in areas with abundant food and space. Unfortunately, hand feeding can cause birds to become concentrated in small urban areas that are incapable of supporting large numbers of birds. The birds then become dependent upon humans for food and can become nuisance animals. Some species, particularly mute swans, can become aggressive and may need to be removed.

Dependence upon humans for food causes:

- ◇ Loss of their natural fear of humans, which creates aggressive behavior.
- ◇ Concentration of birds near highways and airports, potentially causing motor vehicle and airplane accidents.
- ◇ Overpopulation of small wetlands and ponds.
- ◇ Delay or halting of migration to natural wintering sites.



## 3. Disease

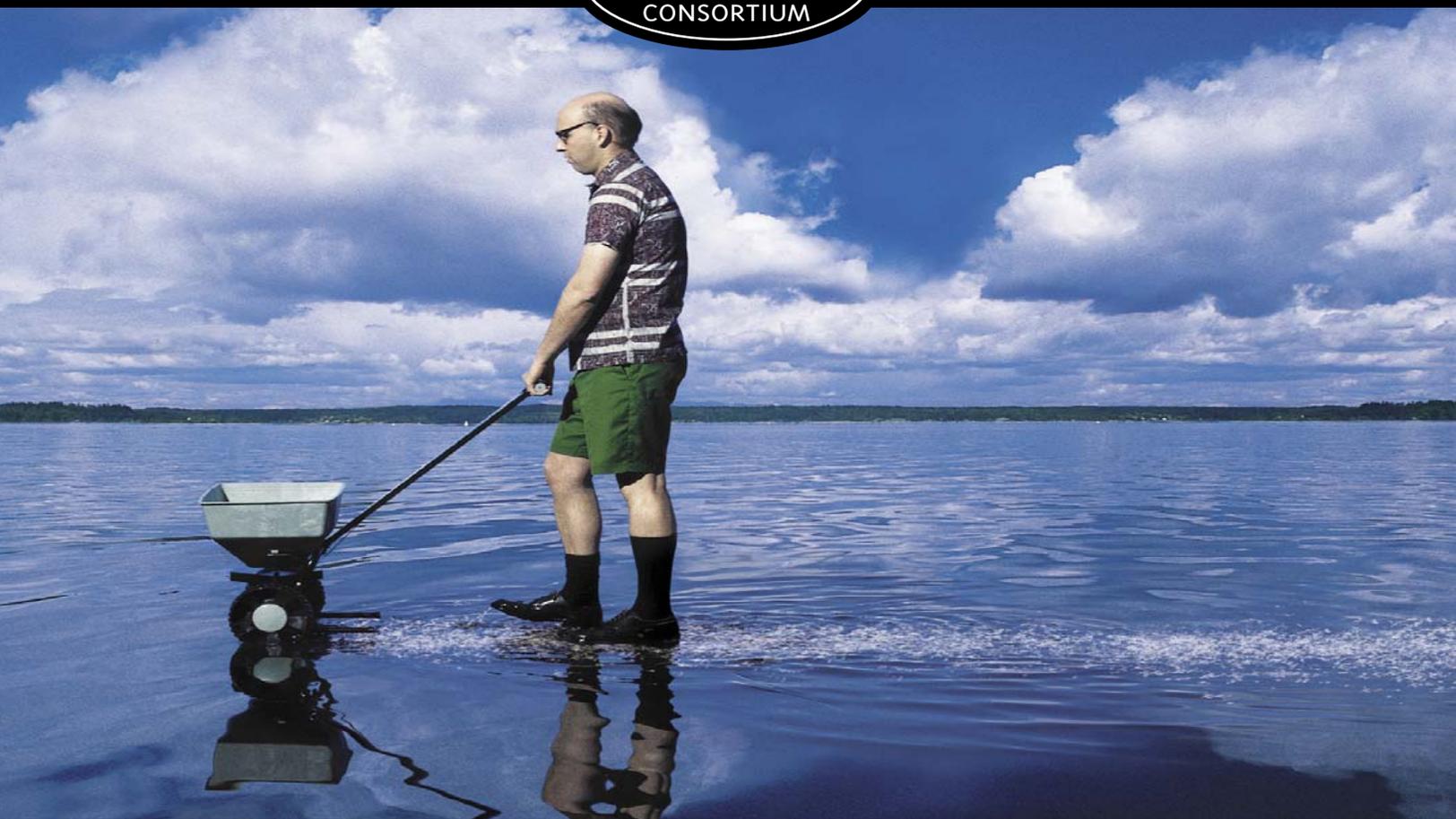
Lowered nutrition and overpopulation allow disease to spread more quickly, potentially infecting thousands of birds with fatal diseases such as Avian Cholera, Duck Plague, Avian Influenza and Avian Botulism. Although these diseases have always existed in waterfowl populations, the risks increase when bird populations become concentrated at feeding sites.

**WHEN YOU'RE FERTILIZING THE LAWN,**

**REMEMBER YOU'RE NOT JUST**

**FERTILIZING THE LAWN.**

**WATER  
QUALITY  
CONSORTIUM**



You fertilize the lawn. Then it rains. The rain washes the fertilizer along the curb, into the storm drain, and directly into our lakes, streams and Puget Sound. This causes algae to grow, which uses up oxygen that fish need to survive. So if you fertilize, please follow directions and use sparingly.

A cooperative venture between the Puget Sound Action Team, Department of Ecology, King County and the cities of Bellevue, Seattle and Tacoma.

# **CLEAN WATER IS IMPORTANT TO ALL OF US**

It's up to all of us to make it happen. In recent years sources of water pollution like industrial wastes from factories have been greatly reduced. Now, more than 60 percent of water pollution comes from things like cars leaking oil, fertilizers from farms and gardens, and failing septic tanks. All these sources add up to a big pollution problem. But each of us can do small things to help clean up our water too—and that adds up to a pollution solution!

## **Why do we need clean water?**

Having clean water is of primary importance for our health and economy. Clean water provides recreation, commercial opportunities, fish habitat, drinking water and adds beauty to our landscape. All of us benefit from clean water—and all of us have a role in getting and keeping our lakes, rivers, marine and ground waters clean.

## **What's the problem with fertilizer?**

Fertilizer isn't a problem if it's used carefully. If you use too much fertilizer or apply it at the wrong time, it can easily wash off your lawn or garden into storm drains and then flow untreated into lakes or streams. Just like in your garden, fertilizer in lakes and streams makes plants grow. In water bodies, extra fertilizer can mean extra algae and aquatic plant growth. Too much algae harms water quality and makes boating, fishing and swimming unpleasant. As algae decay, they use up oxygen in the water that fish and other wildlife need.

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This information is brought to you by the Water Quality Consortium, a group of public agencies working together to reduce nonpoint water pollution through education.

Partially funded by a Centennial Clean Water Fund grant from Washington State Department of Ecology.

## **CLEAN WATER TIP:**

### **How can you fertilize and help keep our waters clean?**

Use fertilizers sparingly. Many plants do not need as much fertilizer or need it as often as you might think.

Don't fertilize before a rain storm.

Consider using organic fertilizers; they release nutrients more slowly.

Use commercially available compost or make your own using garden waste. Mixing compost with your soil means your plants will need less chemical fertilizer and puts your waste to good use. Commercial compost and soil amendments may be available from your solid waste or wastewater utility as well as your local garden store.

For more information on fertilizing alternatives and composting, call your County Extension's Master Gardeners program or the number in your community listed below.

[Place your logo, address and phone number here]

**WHEN YOUR PET GOES ON THE LAWN,**

**REMEMBER IT DOESN'T JUST**

**GO ON THE LAWN.**

**WATER  
QUALITY  
CONSORTIUM**



When our pets leave those little surprises, rain washes all that pet waste and bacteria into our storm drains. And then pollutes our waterways. So what to do? Simple. Dispose of it properly (preferably in the toilet). Then that little surprise gets treated like it should.

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## What's the problem with pet waste?

It's a health risk to pets and people, especially children. It's a nuisance in our neighborhoods. Pet waste is full of bacteria that can make people sick. If it's washed into the storm drain and ends up in a lake, stream or marine water, the bacteria ends up in shellfish. People who eat those shellfish can get very sick. The waste produced by Seattle's dogs and cats is about what a city the size of Renton or Kennewick—about 50,000 people—would produce. Unless people take care of it, the waste enters our water with no treatment.

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## CLEAN WATER TIP:

### How can you get rid of pet waste and help keep our waters clean?

Here are some options.

Scoop it up and flush it down the toilet. That's best because then your community sewage treatment plant or your septic system treats the pet waste.

Seal the waste in a plastic bag and throw it in the garbage. (This is legal in most areas, but check local laws.)

Bury small quantities in your yard where it can decompose slowly. Dig a hole one foot deep. Put three to four inches of waste at the bottom of the hole. Cover the waste with at least eight inches of soil. Bury the waste in several different locations in your yard and keep it away from vegetable gardens.

To find out more about the problems of pet waste and what you can do to prevent water pollution, call the number of your local community listed below.

[Place your logo, address and phone number here]

**WHEN YOU'RE WASHING YOUR CAR IN  
THE DRIVEWAY, REMEMBER YOU'RE  
NOT JUST WASHING YOUR CAR  
IN THE DRIVEWAY.**

**WATER  
QUALITY  
CONSORTIUM**



All the soap, scum, and oily grit runs along the curb. Then into the storm drain and directly into our lakes, streams and Puget Sound. And that causes pollution, which is unhealthy for fish. So how do you avoid this whole mess? Easy. Wash your car on grass or gravel instead of the street. Or better yet, take it to a car wash where the water gets treated and recycled.

A cooperative venture between the Puget Sound Action Team, Department of Ecology, King County and the cities of Bellevue, Seattle and Tacoma.

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## What's the problem with car washing?

There's no problem with washing your car. It's just how and where you do it. Most soap contains phosphates and other chemicals that harm fish and water quality. The soap, together with the dirt and oil washed from your car, flows into nearby storm drains which run directly into lakes, rivers or marine waters. The phosphates from the soap can cause excess algae to grow. Algae look bad, smell bad, and harm water quality. As algae decay, the process uses up oxygen in the water that fish need.

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Partially funded by a Centennial Clean Water Fund grant from Washington State Department of Ecology.

## CLEAN WATER TIP:

### How can you wash your car and help keep our waters clean?

Use soap sparingly. Use a hose nozzle with a trigger to save water.

Pour your bucket of soapy water down the sink when you're done, not in the street. Or wash your car on a grassy area so the ground can filter the water naturally.

Best of all, take your car to a commercial car wash, especially if you plan to clean the engine or the bottom of your car. Most car washes re-use wash water several times before sending it to the sewer system for treatment.

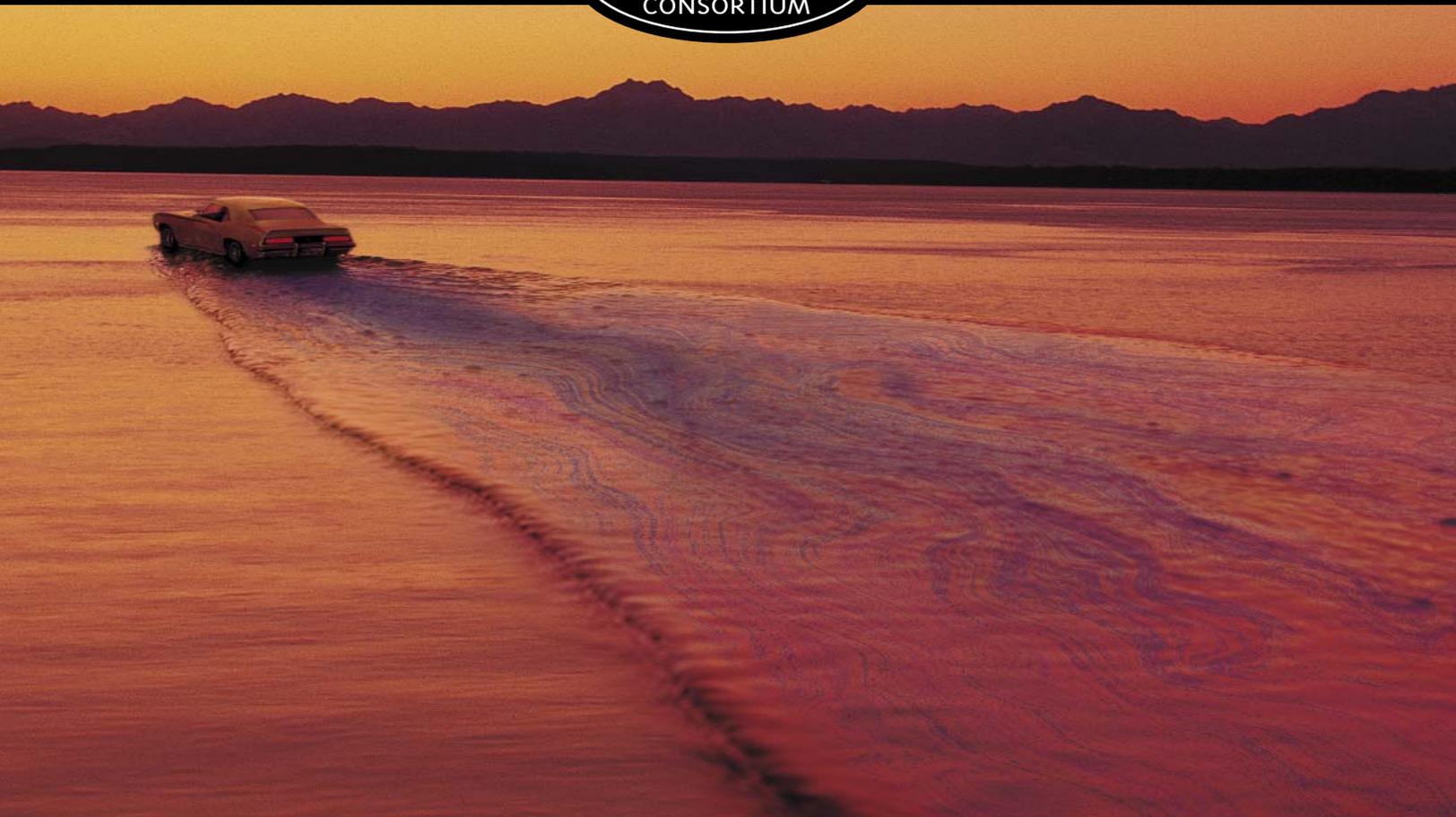
To find out more about the impacts from washing your vehicle and what you can do to prevent water pollution, call the number in your community listed below.



**Town of Smithfield**  
**64 Farnum Pike**  
**Smithfield, RI 02917**  
**(401) 233-1041**

**WHEN YOUR CAR'S LEAKING OIL ON  
THE STREET, REMEMBER IT'S NOT JUST  
LEAKING OIL ON THE STREET.**

**WATER  
QUALITY  
CONSORTIUM**



Leaking oil goes from car to street. And is washed from the street into the storm drain and into our lakes, streams and Puget Sound. Now imagine the number of cars in the area and you can imagine the amount of oil that finds its way from leaky gaskets into our water. So please, fix oil leaks.

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## **What's the problem with motor oil?**

Oil does not dissolve in water. It lasts a long time and sticks to everything from beach sand to bird feathers. Oil and other petroleum products are toxic to people, wildlife and plants. One pint of oil can make a slick larger than a football field. Oil that leaks from our cars onto roads and driveways is washed into storm drains, and then usually flows directly to a lake or stream. Used motor oil is the largest single source of oil pollution in our lakes, streams and rivers. Americans spill 180 million gallons of used oil each year into our waters. This is 16 times the amount spilled by the Exxon Valdez in Alaska.

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Partially funded by a Centennial Clean Water Fund grant from Washington State Department of Ecology.

## **CLEAN WATER TIP:**

**How can you use and change your motor oil and help keep our waters clean?**

Stop drips. Check for oil leaks regularly and fix them promptly. Keep your car tuned to reduce oil use.

Use ground cloths or drip pans beneath your vehicle if you have leaks or are doing engine work. Clean up spills immediately. Collect all used oil in containers with tight fitting lids. Do not mix different engine fluids.

Never dispose of oil or other engine fluids down the storm drain, on the ground or into a ditch.

Recycle used motor oil. Many auto supply stores and gas stations will accept used oil.

Buy recycled (re-refined) motor oil to use in your car.

To find out more about where you can take used oil for recycling, call the Department of Ecology's 1-800-RECYCLE

[Place your logo, address and phone number here]

**WHEN YOUR HOME  
SEPTIC SYSTEM FAILS,  
REMEMBER  
IT DOESN'T JUST FAIL AT HOME.**



A failed septic system is bad news for more than your pocketbook. Runoff can carry untreated sewage off site and into our state's waters. Regular upkeep can keep your system working as it should.

**Your home septic system.  
Check it, fix it, maintain it.**

A message from the Washington Departments of Ecology, Health, Washington Parks & Recreation Commission, Washington Conservation Commission, Puget Sound Partnership, WSU Extension Service, U.S. Environmental Protection Agency and Thurston County Stream Team.



## When your home septic system fails, remember it doesn't just fail at home.

When your home's on-site septic system fails, it's more than a wet, stinky mess. It's expensive to repair and it's a health hazard to you, your family and your pets. And, the problem may not be limited to your yard. When you take care of your septic system, you are taking care of yourself, your wallet, and your community.

A good septic system takes care of most health or environmental threats posed by household sewage and wastewater. But septic systems need regular maintenance. Without it, they can fail and overflow. Runoff can then carry untreated sewage across your yard to your neighbor's property or into surface waters—lakes, streams or Puget Sound.

Public health impacts from failing septic systems can be widespread. Bacteria, viruses and other pollutants from the sewage can contaminate fish and shellfish and make water unsafe for swimming or drinking. Fishing and shellfish industries can be closed. Drinking-water wells and groundwater can be come contaminated. Beaches and waters can be closed for recreation, too.

### **A septic system doesn't have to be a problem. How will you help?**

- ◆ Get regular inspections and maintenance. Check with your county Environmental Health office for advice. You may be able to do this yourself. The current state Board of Health rule for on-site sewage systems requires a full evaluation every one to three years for a system consisting of a septic tank and a gravity drainfield. All other systems must have a yearly evaluation. You may not need to pump every time, but it's good to budget as though you will.
- ◆ Choose a date or time of the year for inspection that's easy to remember. Mark it on the calendar.
- ◆ Learn how to keep your system functioning —what you can and can't flush or pour down the drain. No pet waste, medications, grease or toxic chemicals. If you have a garbage disposal, don't use it or use it sparingly.
- ◆ Keep trees at least 30 feet from edge of drainfield to keep their roots from invading. And never drive over the system.
- ◆ Watch for cues that your tank is nearing capacity or your system is failing. Got odors? Get someone out to check it right away. Then fix it, if needed.
- ◆ Conserve water. Too much can cause solids to escape your tank and plug your drainfield.

## **Your on-site septic system. Check it, fix it, maintain it.**

### **We all need clean water.**

We drink it, fish in it, play in it. We enjoy all it adds to our lives. In fact, we need it to survive. Fish and wildlife do, too.

More than 60 percent of water pollution comes from things like cars leaking oil, fertilizers and pesticides from farms and gardens, failing septic tanks, pet waste, and fuel spills from recreational boaters.

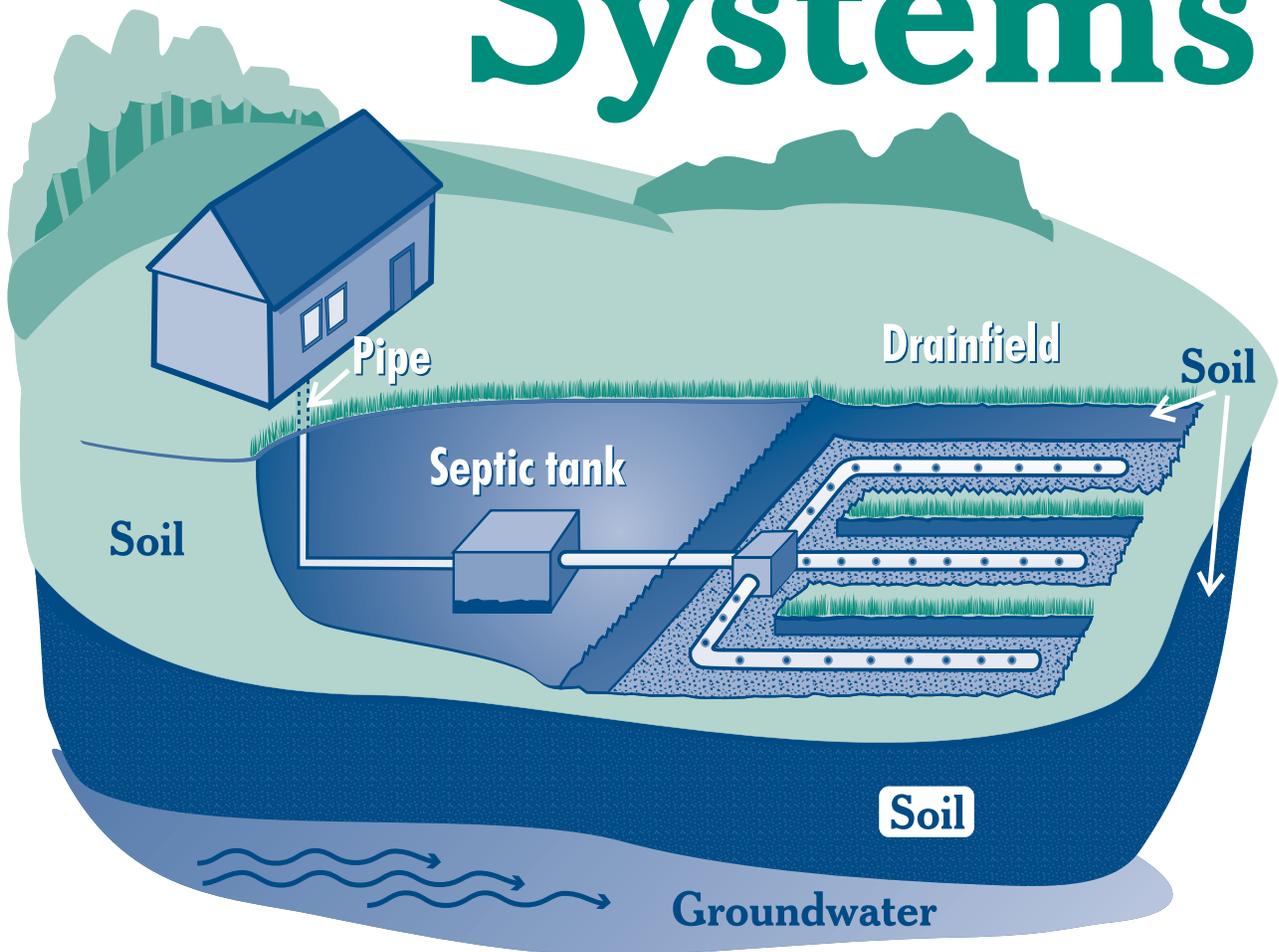
All these small, dispersed sources add up to a big pollution problem. But each of us can do small things to help clean up our waters too—and that adds up to a pollution solution!

### **Bonus points!**

Maintaining your septic system also helps you:

- ◆ Save big bucks and protect your investment in your home.
- ◆ Keep groundwater clean.
- ◆ Maintain good will with your neighbors.
- ◆ Support a healthy watershed.

# A Homeowner's Guide to Septic Systems



## **What's Inside**

<b>Your septic system is your responsibility . . . . .</b>	<b>1</b>
<b>How does it work? . . . . .</b>	<b>1</b>
<b>Why should I maintain my septic system? . . . . .</b>	<b>4</b>
<b>How do I maintain my septic system? . . . . .</b>	<b>5</b>
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<b>For more information . . . . .</b>	<b>13</b>

# Your Septic System is your responsibility!

**Did you know** that as a homeowner you're responsible for maintaining your septic system? Did you know that maintaining your septic system protects your investment in your home? Did you know that you should periodically inspect your system and pump out your septic tank?

If properly designed, constructed and maintained, your septic system can provide long-term, effective treatment of household wastewater. If your septic system isn't maintained, you might need to replace it, costing you thousands of dollars. A malfunctioning system can contaminate groundwater that might be a source of drinking water. And if you sell your home, your septic system must be in good working order.

This guide will help you care for your septic system. It will help you understand how your system works and what steps you can take as a homeowner to ensure your system will work properly. To help you learn more, consult the resources listed at the back of this booklet.

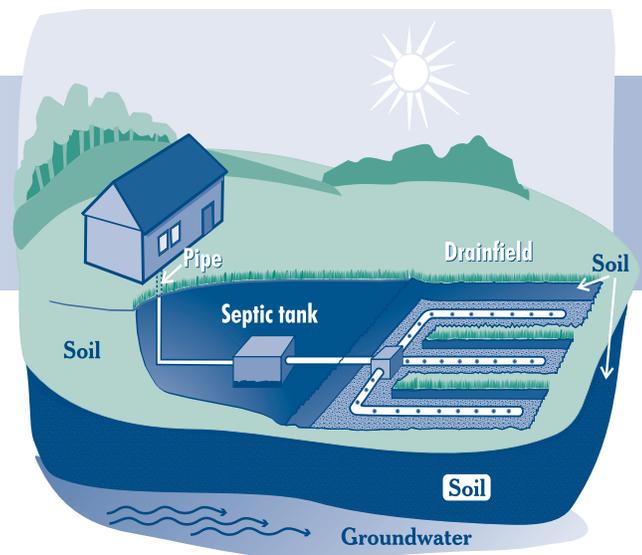
## Top Four Things You Can Do to Protect Your Septic System

1. Regularly inspect your system and pump your tank as necessary.
2. Use water efficiently.
3. Don't dispose of household hazardous wastes in sinks or toilets.
4. Care for your drainfield.

## How does it work?

### Components

A typical septic system has four main components: a pipe from the home, a septic tank, a drainfield, and the soil. Microbes in the soil digest or remove most contaminants from wastewater before it eventually reaches groundwater.



Typical septic system

## Septic system aliases:

- On-lot system
- Onsite system
- Individual sewage disposal system
- Onsite sewage disposal system
- Onsite wastewater treatment system

### *Pipe from the home*

All of your household wastewater exits your home through a pipe to the septic tank.

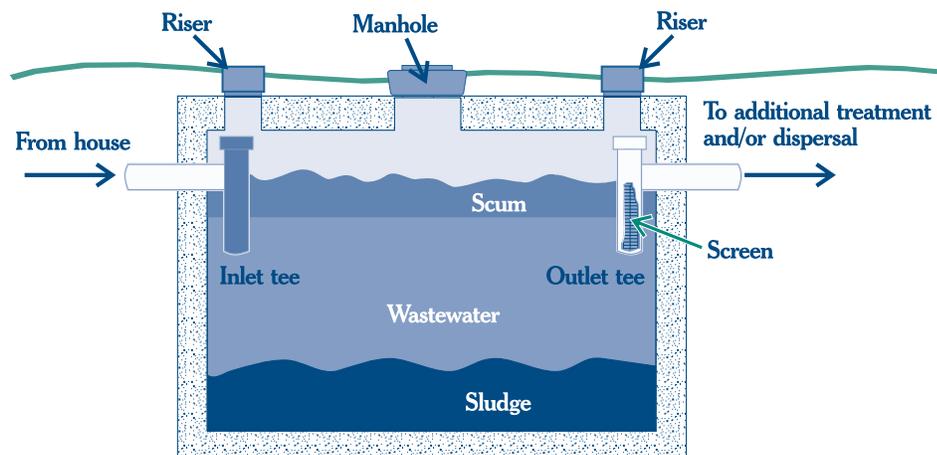
### *Septic tank*

The septic tank is a buried, watertight container typically made of concrete, fiberglass, or polyethylene. It holds the wastewater long enough to allow solids to settle out (forming sludge) and oil and grease to float to the surface (as scum). It also allows partial decomposition of the solid materials. Compartments and a T-shaped outlet in the

septic tank prevent the sludge and scum from leaving the tank and traveling into the drainfield area. Screens are also recommended to keep solids from entering the drainfield.

Newer tanks generally have risers with lids at the ground surface to allow easy location, inspection, and pumping of the tank.

Typical single-compartment septic tank with ground-level inspection risers and screen

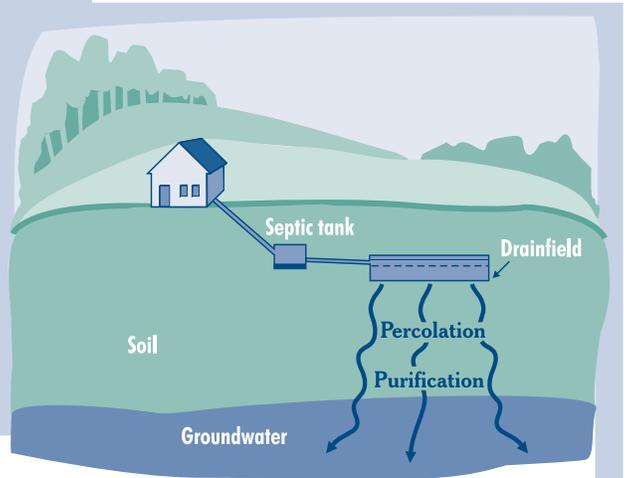


## Tip

To prevent buildup, sludge and floating scum need to be removed through periodic pumping of the septic tank. Regular inspections and pumping are the best and cheapest way to keep your septic system in good working order.

## Finding Your System

Your septic tank, drainfield, and reserve drainfield should be clearly designated on the “as-built” drawing for your home. (An “as-built” drawing is a line drawing that accurately portrays the buildings on your property and is usually filed in your local land records.) You might also see lids or manhole covers for your septic tank. Older tanks are often hard to find because there are no visible parts. An inspector/pumper can help you locate your septic system if your septic tank has no risers.



### *Drainfield*

The wastewater exits the septic tank and is discharged into the drainfield for further treatment by the soil. The partially treated wastewater is pushed along into the drainfield for further treatment every time new wastewater enters the tank.

If the drainfield is overloaded with too much liquid, it will flood, causing sewage to flow to the ground surface or create backups in plumbing fixtures and prevent treatment of all wastewater.

A reserve drainfield, required by many states, is an area on your property suitable for a new drainfield system if your current drainfield fails. Treat this area with the same care as your septic system.

### *Soil*

Septic tank wastewater flows to the drainfield, where it percolates into the soil, which provides final treatment by removing harmful bacteria, viruses, and nutrients. Suitable soil is necessary for successful wastewater treatment.

## Alternative systems

Because many areas don't have soils suitable for typical septic systems, you might have or need an alternative system. You might also have or need an alternative system if there are too many typical septic systems in one area or the systems are too close to groundwater or surface waters. Alternative septic

systems use new technology to improve treatment processes and might need special care and maintenance. Some alternative systems use sand, peat, or plastic media instead of soil to promote wastewater treatment. Other systems might use wetlands, lagoons, aerators, or disinfection devices. Float switches, pumps, and other electrical or mechanical components are often used in alternative systems. Alternative systems should be inspected annually. Check with your local health department or installer for more information on operation and maintenance needs if you have or need an alternative system.

## *Why* should I maintain my septic system?

When septic systems are properly designed, constructed, and maintained, they effectively reduce or eliminate most human health or environmental threats posed by pollutants in household wastewater. However, they require regular maintenance or they can fail. Septic systems need to be monitored to ensure that they work properly throughout their service lives.

### **Saving money**

A key reason to maintain your septic system is to save money! Failing septic systems are expensive to repair or replace, and poor maintenance is often the culprit. Having your septic system inspected regularly is a bargain when you consider the cost of replacing the entire system. Your system will need pumping depending on how many people live in the house and the size of the system. An unusable septic system or one in disrepair will lower your property value and could pose a legal liability.

### **Protecting health and the environment**

Other good reasons for safe treatment of sewage include preventing the spread of infection and disease and protecting water resources. Typical pollutants in household wastewater are nitrogen, phosphorus, and disease-

causing bacteria and viruses. If a septic system is working properly, it will effectively remove most of these pollutants.

With one-fourth of U.S. homes using septic systems, more than 4 billion gallons of wastewater per day is dispersed below the ground's surface. Inadequately treated sewage from septic systems can be a cause of groundwater contamination. It poses a significant threat to drinking water and human health because it can contaminate drinking water wells and cause diseases and infections in people and animals. Improperly treated sewage that contaminates nearby surface waters also increases the chance of swimmers contracting a variety of infectious diseases. These range from eye and ear infections to acute gastrointestinal illness and diseases like hepatitis.

## How do I maintain my septic system?

### Inspect and pump frequently

You should have a typical septic system inspected at least every 3 years by a professional and your tank pumped as recommended by the inspector (generally every 3 to 5 years). Alternative systems with electrical float switches, pumps, or mechanical components need to be inspected more often, generally once a year. Your service provider should inspect for leaks and look at the scum and sludge layers in your septic tank. If the bottom of the scum layer is within 6 inches of the bottom of the outlet tee or the top of the sludge layer is within 12 inches of the outlet tee, your tank needs to be pumped. Remember to note the sludge and scum levels determined by your service provider in your operation and maintenance records. This information will help you decide how often pumping is necessary.

### What Does an Inspection Include?

- Locating the system.
- Uncovering access holes.
- Flushing the toilets.
- Checking for signs of back up.
- Measuring scum and sludge layers.
- Identifying any leaks.
- Inspecting mechanical components.
- Pumping the tank if necessary.

Four major factors influence the frequency of pumping: the number of people in your household, the amount of wastewater generated (based on the number of people in the household and the amount of water used), the volume of solids in the wastewater (for example, using a garbage disposal increases the amount of solids), and septic tank size.

Some makers of septic tank additives claim that their products break down the sludge in septic tanks so the tanks never need to be pumped. Not everyone agrees on the effectiveness of additives. In fact, septic tanks already contain the microbes they need for effective treatment. Periodic pumping is a much better way to ensure that septic systems work properly and provide many years of service. Regardless, every septic tank requires periodic pumping.

In the service report, the pumper should note any repairs completed and whether the tank is in good condition. If the pumper recommends additional repairs he or she can't perform, hire someone to make the repairs as soon as possible.

## Use water efficiently

Average indoor water use in the typical single-family home is almost 70 gallons per person per day. Leaky toilets can waste as much as 200 gallons each day. The more water a household conserves, the less water enters the septic system. Efficient water use can improve the operation of the septic system and reduce the risk of failure.

### *High-efficiency toilets*

Toilet use accounts for 25 to 30 percent of household water use. Do you know how many gallons of water your toilet uses to empty the bowl? Most older homes have toilets with 3.5- to 5-gallon reservoirs, while newer high-efficiency toilets use 1.6 gallons of water or less per flush. If you have problems with your septic system being flooded with household water, consider reducing the volume of water in the toilet tank if you don't have a high-efficiency model or replacing your existing toilets with high-efficiency models.



### ***Faucet aerators and high-efficiency showerheads***

Faucet aerators help reduce water use and the volume of water entering your septic system. High-efficiency showerheads or shower flow restrictors also reduce water use.

### ***Water fixtures***

Check to make sure your toilet's reservoir isn't leaking into the bowl. Add five drops of liquid food coloring to the reservoir before bed. If the dye is in the bowl the next morning, the reservoir is leaking and repairs are needed.

A small drip from a faucet adds many gallons of unnecessary water to your system every day. To see how much a leak adds to your water usage, place a cup under the drip for 10 minutes. Multiply the amount of water in the cup by 144 (the number of minutes in 24 hours, divided by 10). This is the total amount of clean water traveling to your septic system each day from that little leak.



## **Use Water Efficiently!**

- **Install high-efficiency showerheads**
- **Fill the bathtub with only as much water as you need**
- **Turn off faucets while shaving or brushing your teeth**
- **Run the dishwasher and clothes washer only when they're full**
- **Use toilets to flush sanitary waste only (not kitty litter, diapers, or other trash)**
- **Make sure all faucets are completely turned off when not in use**
- **Maintain your plumbing to eliminate leaks**
- **Install aerators in the faucets in your kitchen and bathroom**
- **Replace old dishwashers, toilets, and clothes washers with new, high-efficiency models.**

**For more information on water conservation, please visit [www.epa.gov/owm/water-efficiency/index.htm](http://www.epa.gov/owm/water-efficiency/index.htm)**

## Watch your drains

What goes down the drain can have a major impact on how well your septic system works.

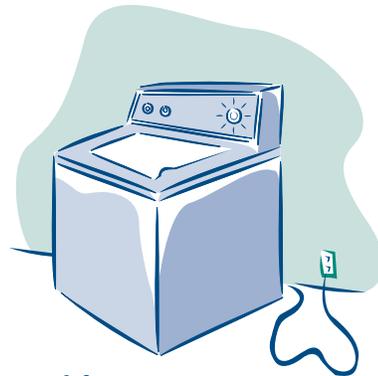
### *Waste disposal*

What shouldn't you flush down your toilet? Dental floss, feminine hygiene products, condoms, diapers, cotton swabs, cigarette butts, coffee grounds, cat litter, paper towels, and other kitchen and bathroom items that can clog and potentially damage septic system components if they become trapped. Flushing household chemicals, gasoline, oil, pesticides, antifreeze, and paint can stress or destroy the biological treatment taking place in the system or might contaminate surface waters and groundwater. If your septic tank pumper is concerned about quickly accumulating scum layers, reduce the flow of floatable materials like fats, oils, and grease into your tank or be prepared to pay for more frequent inspections and pumping.

### *Washing machines*

By selecting the proper load size, you'll reduce water waste. Washing small loads of laundry on the large-load cycle wastes precious water and energy. If you can't select load size, run only full loads of laundry.

Doing all the household laundry in one day might seem like a time-saver, but it could be harmful to your septic system. Doing load after load does not allow your septic tank time to adequately treat wastes. You could be flooding your drainfield without allowing sufficient recovery time. Try to spread water usage throughout the week. A new Energy Star clothes washer uses 35 percent less energy and 50 percent less water than a standard model.



## Care for your drainfield

Your drainfield is an important part of your septic system. Here are a few things you should do to maintain it:

- Plant only grass over and near your septic system. Roots from nearby trees or shrubs might clog and damage the drainfield.
- Don't drive or park vehicles on any part of your septic system. Doing so can compact the soil in your drainfield or damage the pipes, tank, or other septic system components.
- Keep roof drains, basement sump pump drains, and other rainwater or surface water drainage systems away from the drainfield. Flooding the drainfield with excessive water slows down or stops treatment processes and can cause plumbing fixtures to back up.

## What can make my system fail?

If the amount of wastewater entering the system is more than the system can handle, the wastewater backs up into the house or yard and creates a health hazard.

You can suspect a system failure not only when a foul odor is emitted but also when partially treated wastewater flows up to the ground surface. By the time you can smell or see a problem, however, the damage might already be done.

By limiting your water use, you can reduce the amount of wastewater your system must treat. When you have your system inspected and pumped as needed, you reduce the chance of system failure.

A system installed in unsuitable soils can also fail. Other failure risks include tanks that are inaccessible for maintenance, drainfields that are paved or parked on, and tree roots or defective components that interfere with the treatment process.

## Failure symptoms

The most obvious septic system failures are easy to spot. Check for pooling water or muddy soil around your septic system or in your basement. Notice whether your toilet or sink backs up when you flush or do laundry. You might also notice strips of bright green grass over the drainfield. Septic systems also fail when partially treated wastewater comes into contact with

groundwater. This type of failure is not easy to detect, but it can result in the pollution of wells, nearby streams, or other bodies of water. Check with a septic system professional and the local health department if you suspect such a failure.

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*Stop, look, and smell!*

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## Failure causes

### *Household toxics*

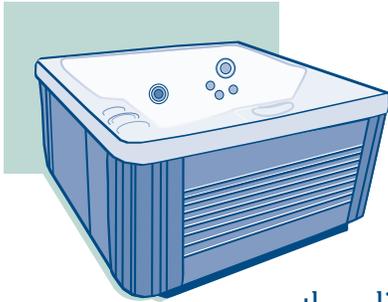
Does someone in your house use the utility sink to clean out paint rollers or flush toxic cleaners? Oil-based paints, solvents, and large volumes of toxic cleaners should not enter your septic system. Even latex paint cleanup waste should be minimized. Squeeze all excess paint and stain from brushes and rollers on several layers of newspaper before rinsing. Leftover paints and wood stains should be taken to your local household hazardous waste collection center. Remember that your septic system contains a living collection of organisms that digest and treat waste.

### *Household cleaners*

For the most part, your septic system's bacteria should recover quickly after small amounts of household cleaning products have entered the system. Of course, some cleaning products are less toxic to your system than others. Labels can help key you into the potential toxicity of various products. The word "Danger" or "Poison" on a label indicates that the product is highly hazardous. "Warning" tells you the product is moderately hazardous. "Caution" means the product is slightly hazardous. ("Nontoxic" and "Septic Safe"



are terms created by advertisers to sell products.) Regardless of the type of product, use it only in the amounts shown on the label instructions and minimize the amount discharged into your septic system.



### ***Hot tubs***

Hot tubs are a great way to relax.

Unfortunately, your septic system was not designed to handle large quantities of water from your hot tub. Emptying

hot tub water into your septic system stirs

the solids in the tank and pushes them out into the

drainfield, causing it to clog and fail. Draining your hot tub

into a septic system or over the drainfield can overload the system. Instead, drain cooled hot tub water onto turf or landscaped areas well away from the septic tank and drainfield, and in accordance with local regulations.

Use the same caution when draining your swimming pool.

### ***Water Purification Systems***

Some freshwater purification systems, including water softeners, unnecessarily pump water into the septic system. This can contribute hundreds of gallons of water to the septic tank, causing agitation of solids and excess flow to the drainfield. Check with your licensed plumbing professional about alternative routing for such freshwater treatment systems.

### ***Garbage disposals***

Eliminating the use of a garbage disposal can reduce the amount of grease and solids entering the septic tank and possibly clogging the drainfield. A garbage disposal grinds up kitchen scraps, suspends them in water, and sends the mixture to the septic tank. Once in the septic tank, some of the materials are broken down by bacterial action, but most of the grindings have to be pumped out of the tank. Using a garbage disposal frequently can significantly increase the accumulation of sludge and scum in your septic tank, resulting in the need for more frequent pumping.

***Not in My  
Septic System!***

#### ***X Cloggers***

diapers, cat litter, cigarette filters, coffee grounds, grease, feminine hygiene products, etc.

#### ***X Killers***

household chemicals, gasoline, oil, pesticides, antifreeze, paint, etc.

### ***Improper design or installation***

Some soils provide excellent wastewater treatment; others don't. For this reason, the design of the drainfield of a septic system is based on the results of soil analysis. Homeowners and system designers sometimes underestimate the significance of good soils or believe soils can handle any volume of wastewater applied to them. Many failures can be attributed to having an undersized drainfield or high seasonal groundwater table. Undersized septic tanks—another design failure—allow solids to clog the drainfield and result in system failure.

If a septic tank isn't watertight, water can leak into and out of the system. Usually, water from the environment leaking into the system causes hydraulic overloading, taxing the system beyond its capabilities and causing inadequate treatment and sometimes sewage to flow up to the ground surface. Water leaking out of the septic tank is a significant health hazard because the leaking wastewater has not yet been treated.

Even when systems are properly designed, failures due to poor installation practices can occur. If the drainfield is not properly leveled, wastewater can overload the system. Heavy equipment can damage the drainfield during installation which can lead to soil compaction and reduce the wastewater infiltration rate. And if surface drainage isn't diverted away from the field, it can flow into and saturate the drainfield.

# *For* more information

## **Local Health Department**

### **EPA Onsite/Decentralized Management Homepage**

**[www.epa.gov/owm/septic](http://www.epa.gov/owm/septic)**

EPA developed this Web site to provide tools for communities investigating and implementing onsite/decentralized management programs. The Web site contains fact sheets, program summaries, case studies, links to design and other manuals, and a list of state health department contacts that can put you in touch with your local health department.

### **National Small Flows Clearinghouse**

**[www.nesc.wvu.edu](http://www.nesc.wvu.edu)**

Funded by grants from EPA, the NSFC helps America's small communities and individuals solve their wastewater problems. Its activities include a Web site, online discussion groups, a toll-free assistance line (800-624-8301), informative publications, and a free quarterly newsletter and magazine.

### **Rural Community Assistance Program**

**[www.rcap.org](http://www.rcap.org)**

RCAP is a resource for community leaders and others looking for technical assistance services and training related to rural drinking water supply and wastewater treatment needs, rural solid waste programs, housing, economic development, comprehensive community assessment and planning, and environmental regulations.

### **National Onsite Wastewater Recycling Association, Inc.**

**[www.nowra.org](http://www.nowra.org)**

NOWRA is a national professional organization to advance and promote the onsite wastewater industry. The association promotes the need for regular service and educates the public on the need for properly designed and maintained septic systems.

## Septic Yellow Pages

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

The Septic Yellow Pages provides listings by state for professional septic pumpers, installers, inspectors, and tank manufacturers throughout the United States. This Web site is designed to answer simple septic system questions and put homeowners in contact with local septic system professionals.

## National Association of Wastewater Transporters

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

NAWT offers a forum for the wastewater industry to exchange ideas and concerns. The NAWT Web site lists state associations and local inspectors and pumpers.



EPA-832-B-02-005  
December 2002  
Revised March 2005

Additional copies can be obtained from:  
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Fax: 513-489-8695

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U.S. Environmental Protection Agency

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# Septic System Dos and Don'ts

(adapted from National Small Flows Clearinghouse)

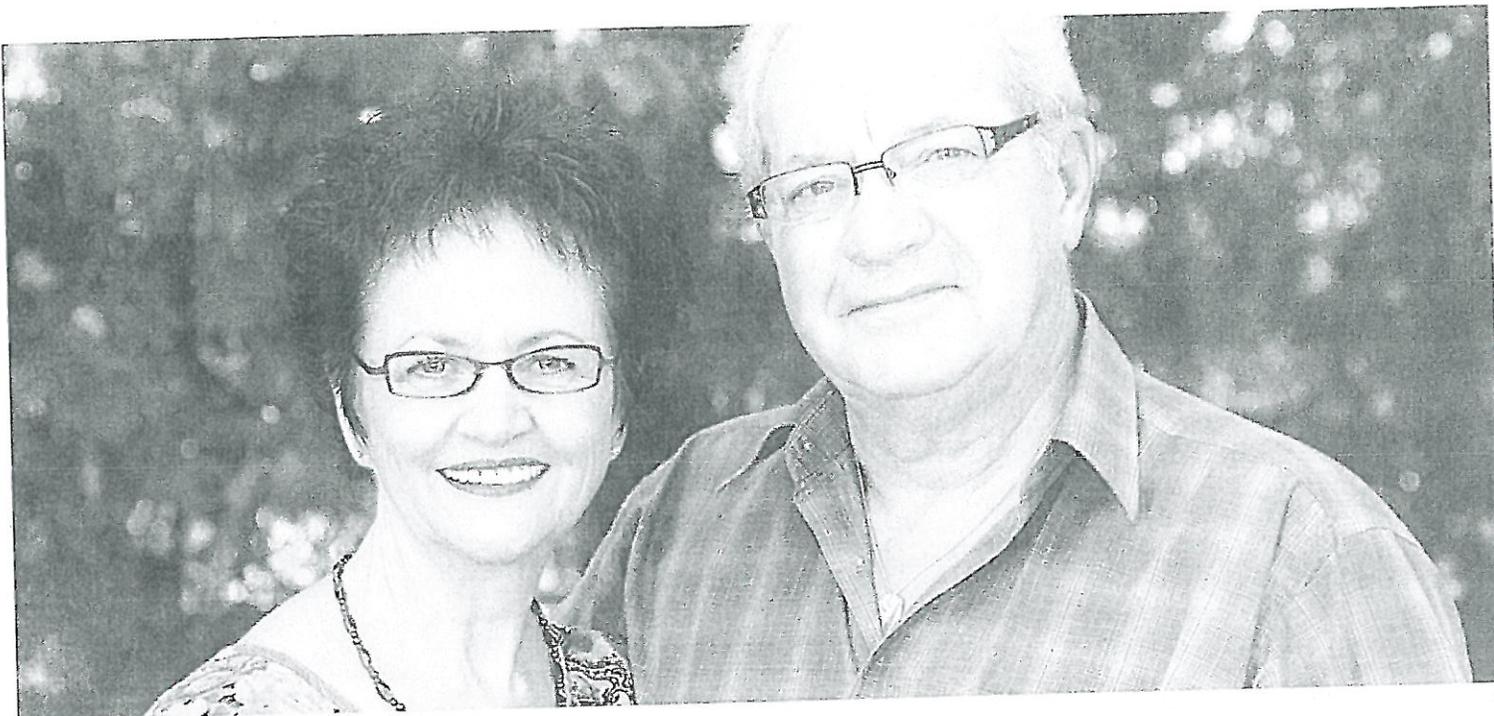
## Dos

- Check with the local regulatory agency or inspector/pumper if you have a garbage disposal unit to make sure that your septic system can handle this additional waste.
- Check with your local health department before using additives. Commercial septic tank additives do not eliminate the need for periodic pumping and can be harmful to the system.
- Use water efficiently to avoid overloading the septic system. Be sure to repair leaky faucets or toilets. Use high-efficiency fixtures.
- Use commercial bathroom cleaners and laundry detergents in moderation. Many people prefer to clean their toilets, sinks, showers, and tubs with a mild detergent or baking soda.
- Check with your local regulatory agency or inspector/pumper before allowing water softener backwash to enter your septic tank.
- Keep records of repairs, pumpings, inspections, permits issued, and other system maintenance activities.
- Learn the location of your septic system. Keep a sketch of it with your maintenance record for service visits.
- Have your septic system inspected and pumped as necessary by a licensed inspector/contractor.
- Plant only grass over and near your septic system. Roots from nearby trees or shrubs might clog and damage the drainfield.

## Don'ts

- Your septic system is not a trash can. Don't put dental floss, feminine hygiene products, condoms, diapers, cotton swabs, cigarette butts, coffee grounds, cat litter, paper towels, latex paint, pesticides, or other hazardous chemicals into your system.
- Don't use caustic drain openers for a clogged drain. Instead, use boiling water or a drain snake to open clogs.
- Don't drive or park vehicles on any part of your septic system. Doing so can compact the soil in your drainfield or damage the pipes, tank, or other septic system components.





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### Free workshop for private well owners

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#### Learn:

- The importance of regular testing
- How to protect your well water from pollution
- Proper well maintenance

**Tuesday, February 10, 2015 6-7 PM**

Hope Library, 374 North Road, Scituate, RI

Hosted in partnership with the Hope Library, Northern RI Conservation District & Providence Water Supply

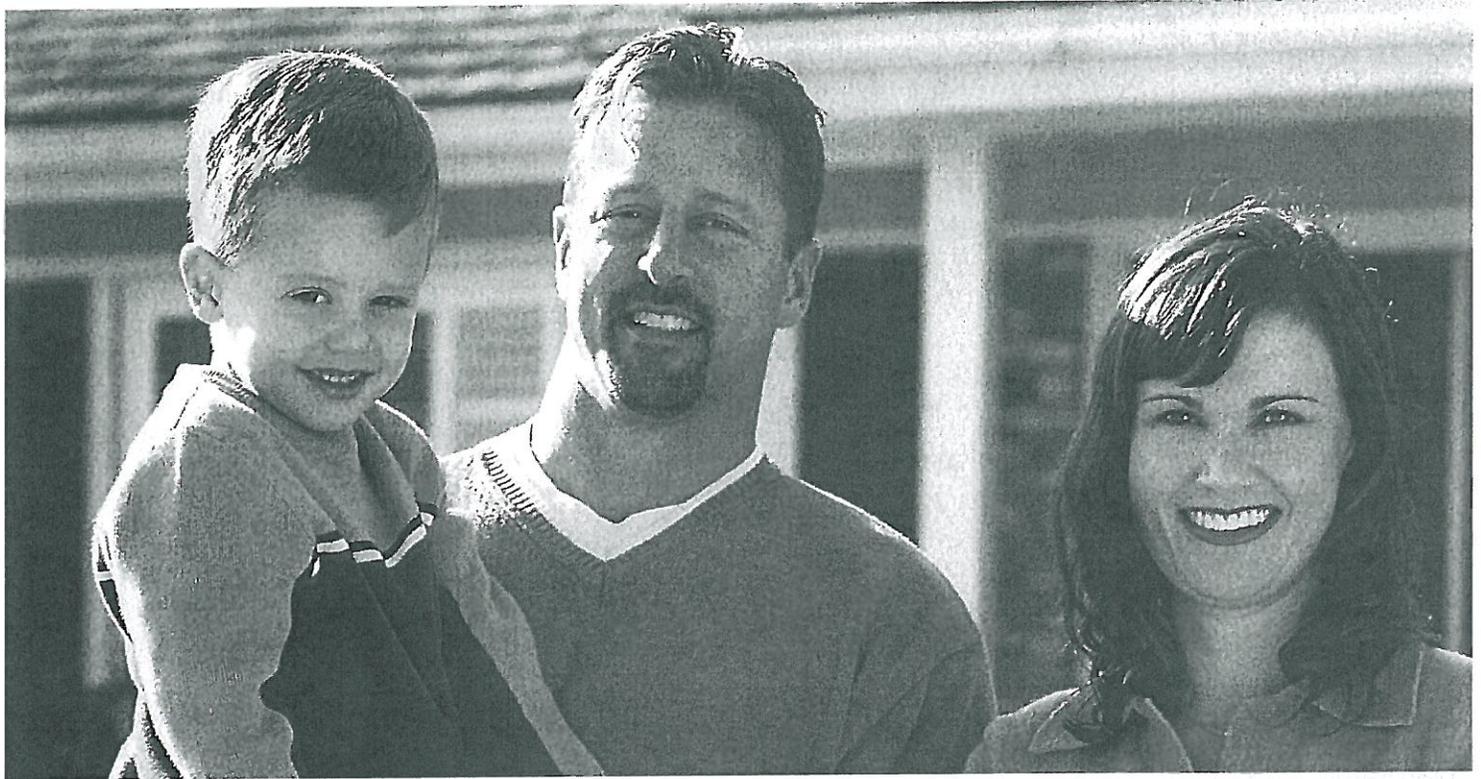
To register, call URI at 401-874-4918. Pre-registration is required.

See [www.riwelltesting.org](http://www.riwelltesting.org) for more information on private well protection

These workshops are conducted by the University of Rhode Island Cooperative Extension Water Quality Program and the RI Department of Health. Funding provided by the RI Department of Health Capacity Development Program.

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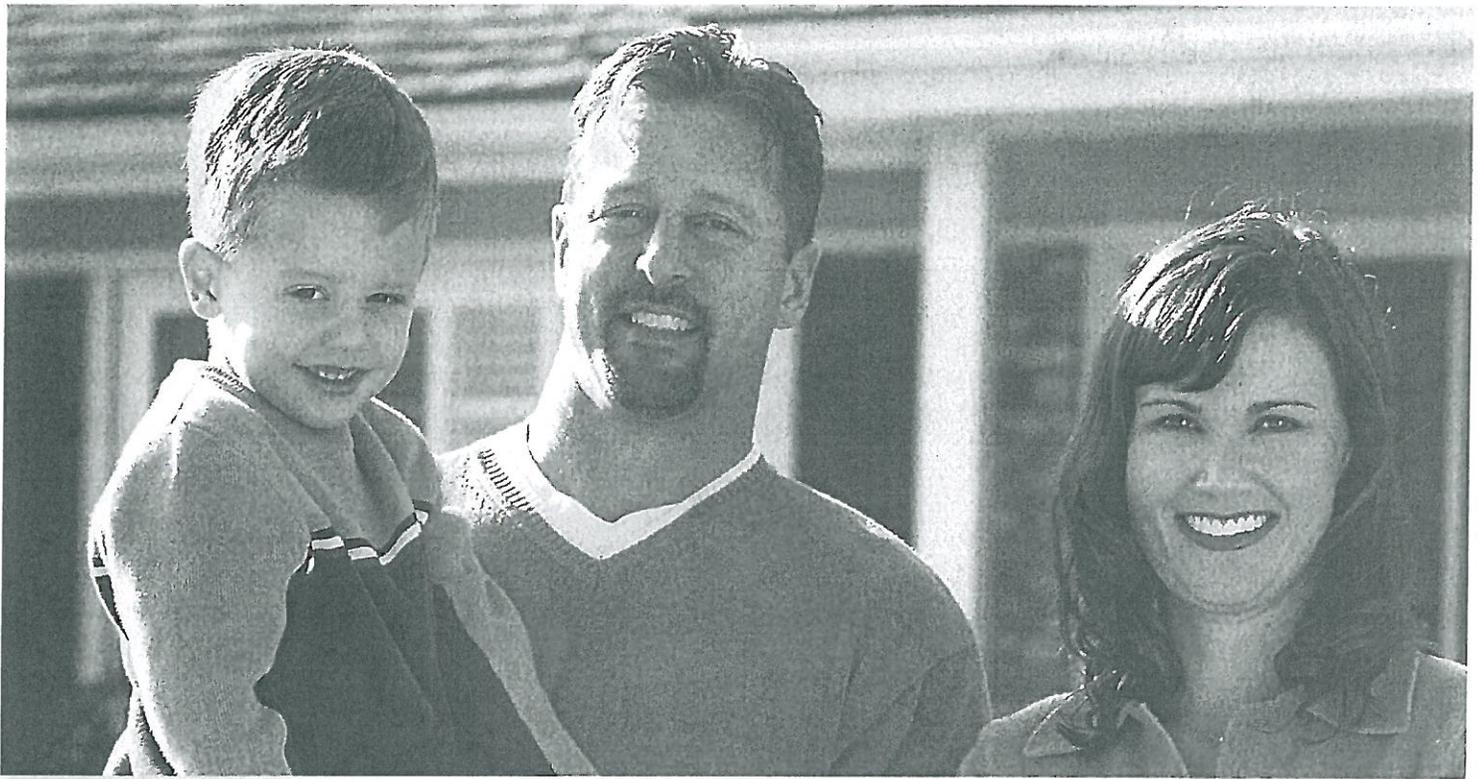
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**Monday, April 27, 2015 6:00 – 7:00 PM**

Brown Avenue School Cafeteria, 14 Brown Avenue, Johnston RI

Hosted in partnership with the Northern Rhode Island Conservation District & the Providence Water Supply Board

To register, call URI at 401-874-4918

See [www.riwelltesting.org](http://www.riwelltesting.org) for more information on private well protection

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# What is a Watershed?

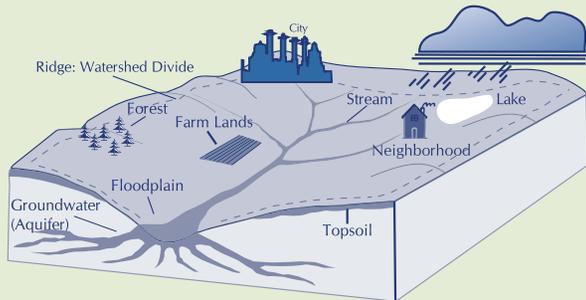
A watershed is an area of land that drains to a common point, such as a nearby creek, stream, river or lake. Every small watershed drains to a larger watershed that eventually flows to the ocean.

Watersheds support a wide variety of plants and wildlife and provide many outdoor recreation opportunities. By protecting the health of our watersheds we can preserve and enhance the quality of life for Kansas City area residents.

## What is Stormwater Runoff?

Stormwater is water from rain or melting snow. It flows from rooftops, over paved streets, sidewalks and parking lots, across bare soil, and through lawns and storm drains. As it flows, runoff collects and transports soil, pet waste, salt, pesticides, fertilizer, oil and grease, litter and other pollutants. This water drains directly into nearby creeks, streams and rivers, without receiving treatment at sewage plants.

Polluted stormwater contaminates streams, rivers and lakes. It can kill or damage plants, fish and wildlife, while degrading the quality of our water.



A typical watershed system

For more information,  
visit [www.marc.org/Environment/Water](http://www.marc.org/Environment/Water)  
or call 816/474-4240.

## Wash your car the right way



Spring Watershed Tip

The car is clean  
but what about  
the water?



Clean Water. Healthy Life.

**Clean Water.  
Healthy Life.**

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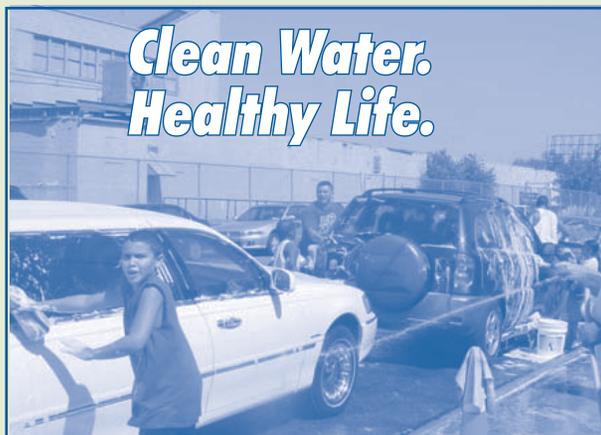


# The Facts About Car Washing

For many, car washing is a springtime ritual. Often, citizens don't know that by washing all that winter grime off their vehicles they might actually be causing harm to our local waterways.

Water entering storm drains, unlike water that enters sanitary sewers, does not undergo treatment before it is discharged into our waterways. When cars are washed on streets and driveways, that dirty water eventually winds up in rivers, streams, creeks, and lakes.

Washing one car may not seem to be a problem, but collectively car washing activity adds up to big problems for our local lakes, creeks and streams. Pollution associated with car washing degrades water quality while also finding its way into sediments, impacting aquatic habitats.



# What's the Problem?

Washing your car is only a problem if you don't know where or how to do it correctly. The average homeowner uses 116 gallons of water to wash a car! Most commercial car washes use 60 percent less water for the entire process than a homeowner uses just to rinse the car.

**Among the many impacts of motor vehicles on our environment, car washing has been noted by water quality experts as a serious contributor to water pollution.**

Water that runs off a car when it is washed in a driveway, street, or parking lot can contain substances that pollute the environment. Dirty water containing soap, detergents, residue from exhaust fumes, gasoline, heavy metals from rust, and motor oils can wash off cars and flow directly to storm drains and into the nearest creek or stream where it can harm water quality and wildlife.

The phosphates from soap can cause excess algae to grow. Excessive algae smell bad, look bad, and harm water quality. As algae decay, the process uses up oxygen in the water that fish need.

Car wash fundraisers can be a significant source of this kind of pollution. These events are usually held in heavily paved areas where there is little runoff control or grass to filter out harmful substances before they reach our waterways.

# What Can You Do?

The best way to minimize the effect washing your car has on the environment is to use a commercial car wash. Most locations reuse wash water several times before sending it to a treatment plant.

However, if you choose to wash your car at home or on the street, these are some things that you can do to minimize the water quality impact:

- Use biodegradable, phosphate-free, water-based cleaners only.
- Minimize water usage. Use a spray gun with flow restriction to minimize water volume and runoff.
- Wash on an area that absorbs water, such as gravel, or grass. This can filter water before it enters groundwater, storm drains, or creeks. Avoid washing cars on concrete or asphalt pavement unless it drains into a vegetated area.
- Only let wash water soak into the ground as long as you are using biodegradable, phosphate-free cleaners.
- When planning a car wash fundraiser, try developing a partnership with a commercial car wash facility, or use a safe location.
- Always empty wash buckets into sinks or toilets.

# How to Dispose of Medicines Properly

**DON'T:** Flush expired or unwanted prescription and over-the-counter drugs down the toilet or drain unless the label or accompanying patient information specifically instructs you to do so.

**DO:** Return unwanted or expired prescription and over-the-counter drugs to a drug take-back program or follow the steps for household disposal below.

## 1ST CHOICE: DRUG TAKE-BACK EVENTS

To dispose of prescription and over-the-counter drugs, call your city or county government's household trash and recycling service and ask if a drug take-back program is available in your community. Some counties hold household hazardous waste collection days, where prescription and over-the-counter drugs are accepted at a central location for proper disposal.



**Drug Take-Back Event**

Courtesy: Upper Watauga Riverkeeper  
and Appalachian Voices

## 2ND CHOICE: HOUSEHOLD DISPOSAL STEPS\*



1. Take your prescription drugs out of their original containers.



2. Mix drugs with an undesirable substance, such as cat litter or used coffee grounds.



3. Put the mixture into a disposable container with a lid, such as an empty margarine tub, or into a sealable bag.



4. Conceal or remove any personal information, including Rx number, on the empty containers by covering it with permanent marker or duct tape, or by scratching it off.



5. The sealed container with the drug mixture, and the empty drug containers, can now be placed in the trash.

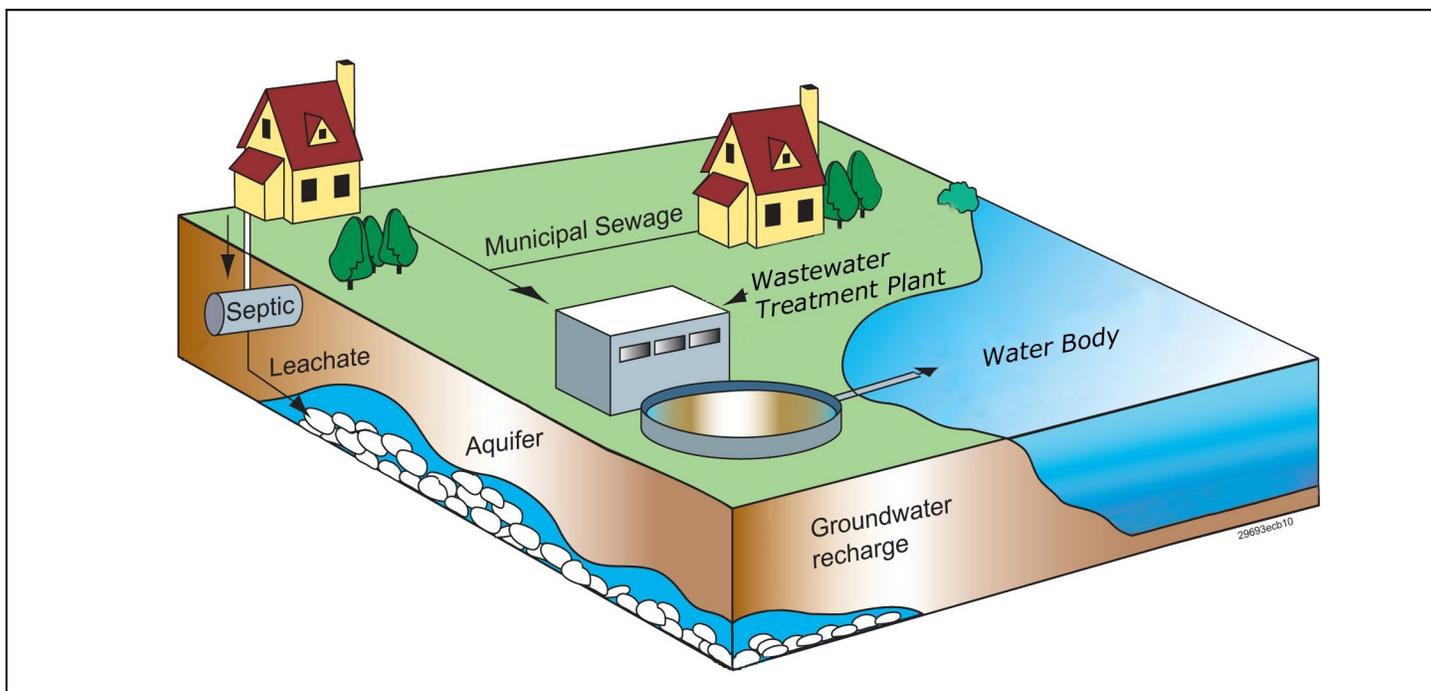
# How Proper Disposal of Medicines Protects You and the Earth:

- Prevents poisoning of children and pets
- Deters misuse by teenagers and adults
- Avoids health problems from accidentally taking the wrong medicine, too much of the same medicine, or a medicine that is too old to work well
- Keeps medicines from entering streams and rivers when poured down the drain or flushed down the toilet

# How Improper Disposal of Medicines May End Up in Our Drinking Water Sources

In homes that use septic tanks, prescription and over-the-counter drugs flushed down the toilet can leach into the ground and seep into ground water.

In cities and towns where residences are connected to wastewater treatment plants, prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the treatment system and enter rivers and lakes. They may flow downstream to serve as sources for community drinking water supplies. Water treatment plants are generally not equipped to routinely remove medicines.



For more information, go to [www.epa.gov/ppcp/](http://www.epa.gov/ppcp/)  
Or call the Safe Drinking Water Hotline at 800-426-4791

# Protecting Water Quality *from* **AGRICULTURAL RUNOFF**

## *Clean Water Is Everybody's Business*

**T**he United States has more than 330 million acres of agricultural land that produce an abundant supply of food and other products. American agriculture is noted worldwide for its high productivity, quality, and efficiency in delivering goods to the consumer. When improperly managed however, activities from working farms and ranches can affect water quality.

In the 2000 *National Water Quality Inventory*, states reported that agricultural nonpoint source (NPS) pollution is the leading source of water quality impacts on surveyed rivers and lakes, the second largest source of impairments to wetlands, and a major contributor to contamination of surveyed estuaries and ground water. Agricultural activities that cause NPS pollution include poorly located or managed animal feeding operations; overgrazing; plowing too often or at the wrong time; and improper, excessive, or poorly timed application of pesticides, irrigation water, and fertilizer.

Pollutants that result from farming and ranching include sediment, nutrients, pathogens, pesticides, metals, and salts. Impacts from agricultural activities on surface water and ground water can be minimized by using management practices that are adapted to local conditions. Many practices designed

### **What Is Nonpoint Source Pollution?**

Nonpoint source (NPS) pollution, unlike pollution from point sources such as industrial and sewage treatment plants, comes from many diffuse sources. Polluted runoff is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into watersheds through lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water.

### *Did you know that runoff from farms is the leading source of impairments to surveyed rivers and lakes?*

to reduce pollution also increase productivity and save farmers and ranchers money in the long run.

There are many government programs available to help farmers and ranchers design and pay for management approaches to prevent and control NPS pollution. For example, over 40 percent of section 319 Clean Water Act grants have been used to control NPS pollution from working farms and ranches. Also, many programs funded by the U.S. Department of Agriculture and by states provide cost-share, technical assistance, and economic incentives to implement NPS pollution management practices. Many local organizations and individuals have come together to help create regional support networks to adopt technologies and practices to eliminate or reduce water quality impacts caused by agricultural activities.

### **Sedimentation**

The most prevalent source of agricultural water pollution is soil that is washed off fields. Rain water carries soil particles (sediment) and dumps them into nearby lakes or streams. Too much sediment can cloud the water, reducing the amount of sunlight that reaches aquatic plants. It can also clog the gills of fish or smother fish larvae.

In addition, other pollutants like fertilizers, pesticides, and heavy metals are often attached to the soil particles and wash into the water bodies, causing algal blooms and depleted oxygen, which is deadly to most aquatic life. Farmers and ranchers can reduce erosion and sedimentation by 20 to 90 percent by applying management practices that control the volume and flow rate of runoff water, keep the soil in place, and reduce soil transport.

### **Nutrients**

Farmers apply nutrients such as phosphorus, nitrogen, and potassium in the form of chemical fertilizers, manure, and sludge. They may also grow legumes and leave crop residues to enhance production. When these sources exceed plant needs, or are applied just before it rains, nutrients can wash into aquatic ecosystems. There they can cause algae blooms, which can ruin swimming and boating opportunities, create foul taste and odor in drinking water, and kill fish by removing oxygen from the water. High concentrations of nitrate in drinking water can cause methemoglobinemia, a potentially fatal disease in infants, also known as blue baby syndrome. To combat nutrient losses, farmers can implement nutrient management plans that help maintain high yields and save money on fertilizers.



## Animal Feeding Operations

By confining animals in small areas or lots, farmers and ranchers can efficiently feed and maintain livestock. But these confined areas become major sources of animal waste. An estimated 238,000 working farms and ranches in the United States are considered animal feeding operations, generating about 500 million tons of manure each year. Runoff from poorly managed facilities can carry pathogens such as bacteria and viruses, nutrients, and oxygen-demanding organics and solids that contaminate shellfishing areas and cause other water quality problems. Ground water can also be contaminated by waste seepage. Farmers and ranchers can limit discharges by storing and managing facility wastewater and runoff with appropriate waste management systems.

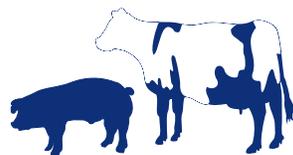
## Livestock Grazing

Overgrazing exposes soils, increases erosion, encourages invasion by undesirable plants, destroys fish habitat, and may destroy streambanks and floodplain vegetation necessary for habitat and water quality filtration. To reduce the impacts of grazing on water quality, farmers and ranchers can adjust grazing intensity, keep livestock out of sensitive areas, provide

alternative sources of water and shade, and promote revegetation of ranges, pastures, and riparian zones.

## Irrigation

Irrigation water is applied to supplement natural precipitation or to protect crops against freezing or wilting. Inefficient irrigation can cause water quality problems. In arid areas, for example, where rainwater does not carry minerals deep into the soil, evaporation of irrigation water can concentrate salts. Excessive irrigation can affect water quality by causing erosion, transporting nutrients, pesticides, and heavy metals, or decreasing the amount of water that flows naturally in streams and rivers. It can also cause a buildup of selenium, a toxic metal that can harm waterfowl reproduction. Farmers can reduce NPS pollution from irrigation by improving water use efficiency. They can measure actual crop needs and apply only the amount of water required. Farmers may also choose to convert irrigation systems to higher efficiency equipment.



## Pesticides

Insecticides, herbicides, and fungicides are used to kill agricultural pests. These chemicals can enter and contaminate water through direct application, runoff, and atmospheric deposition. They can poison fish and wildlife, contaminate food sources, and destroy the habitat that animals use for protective cover. To reduce contamination from pesticides, farmers should use Integrated Pest Management (IPM) techniques based on the specific soils, climate, pest history, and crop conditions for a particular field. IPM encourages natural barriers and limits pesticide use and manages necessary applications to minimize pesticide movement from the field.

### Farm Bill Conservation Funding

In May 2002 President Bush signed the Farm Bill, providing up to \$13 billion for conservation programs for six years. This Farm Bill represents an 80 percent increase above current levels of funding available for conservation programs designed to prevent polluted runoff. For more information, visit [www.usda.gov/farmbill](http://www.usda.gov/farmbill).

## Related Publications and Web Sites

### National Management Measures to Control Nonpoint Source Pollution from Agriculture

[epa.gov/nps/agmm](http://epa.gov/nps/agmm)

This technical guidance and reference document is for use by state, local, and tribal managers in the implementation of nonpoint source pollution management programs. It contains information on effective, readily available, and economically achievable means of reducing pollution of surface and ground water from agriculture.

### Agricultural Nonpoint Source Pollution Management Web Site

[epa.gov/nps/agriculture.html](http://epa.gov/nps/agriculture.html)

This web site features a collection of links to helpful documents, federal programs, partnerships and nongovernmental organizations that convey advice and assistance to farmers and ranchers for protecting water quality.

### National Agriculture Compliance Assistance Center

[epa.gov/agriculture](http://epa.gov/agriculture) or call toll-free: 1-888-663-2155

EPA's National Agriculture Compliance Assistance Center is the "first stop" for information about environmental requirements that affect the agricultural community.

### Animal Feeding Operations (AFO) Web Sites

AFO Virtual Information Center: [epa.gov/npdes/afovirtualcenter](http://epa.gov/npdes/afovirtualcenter)  
Overview of regulations and helpful links: [epa.gov/npdes/af](http://epa.gov/npdes/af)

## Funding Sources

### Searchable Catalog of Federal Funding Sources for Watershed Protection

[epa.gov/watershedfunding](http://epa.gov/watershedfunding)

### Agricultural Management Assistance Database

[www.nrcs.usda.gov/programs/ama](http://www.nrcs.usda.gov/programs/ama)

**Clean Water Act Section 319(h) funding** ([epa.gov/nps/319hfunds.html](http://epa.gov/nps/319hfunds.html)) is provided to designated state and tribal agencies to implement approved nonpoint source management programs.

**Environmental Quality Incentives Program** ([www.nrcs.usda.gov/programs/eqip](http://www.nrcs.usda.gov/programs/eqip)) offers financial, technical, and educational assistance to install or implement structural, vegetative, and management practices designed to conserve soil and other natural resources.

**Conservation Reserve and Conservation Reserve Enhancement Programs** ([www.fsa.usda.gov/dafp/cepd/default.htm](http://www.fsa.usda.gov/dafp/cepd/default.htm)) implemented by the U.S. Department of Agriculture provide financial incentives to encourage farmers and ranchers to voluntarily protect soil, water, and wildlife resources.

## For More Information

U.S. Environmental Protection Agency  
Nonpoint Source Control Branch (4503T)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
[epa.gov/nps](http://epa.gov/nps)



# After the Storm

For more information contact:

or visit  
[www.epa.gov/npdes/stormwater](http://www.epa.gov/npdes/stormwater)  
[www.epa.gov/nps](http://www.epa.gov/nps)



EPA 833-B-03-002

January 2003



*A Citizen's Guide to  
Understanding Stormwater*



# The effects of pollution

## What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.



## Why is stormwater runoff a problem?



Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- ◆ Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- ◆ Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- ◆ Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- ◆ Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- ◆ Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.



- ◆ Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

# Stormwater Pollution Solutions

## Residential

*Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids.*

*Don't pour them onto the ground or into storm drains.*

### Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.

- ◆ Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- ◆ Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- ◆ Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- ◆ Cover piles of dirt or mulch being used in landscaping projects.



### Septic systems

Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- ◆ Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- ◆ Don't dispose of household hazardous waste in sinks or toilets.



### Auto care

Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- ◆ Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- ◆ Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.



### Pet waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.

- ◆ When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.



*Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.*

## Residential landscaping

**Permeable Pavement**—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

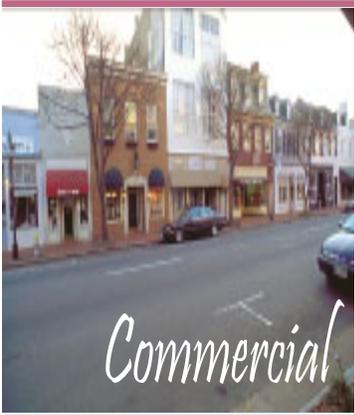
**Rain Barrels**—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.

**Rain Gardens and Grassy Swales**—Specially designed areas planted with native plants can provide natural places for



rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.

**Vegetated Filter Strips**—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.



## Commercial

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

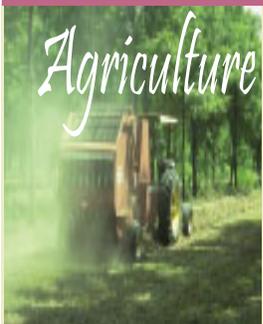
- ◆ Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- ◆ Cover grease storage and dumpsters and keep them clean to avoid leaks.
- ◆ Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- ◆ Divert stormwater away from disturbed or exposed areas of the construction site.
- ◆ Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- ◆ Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.



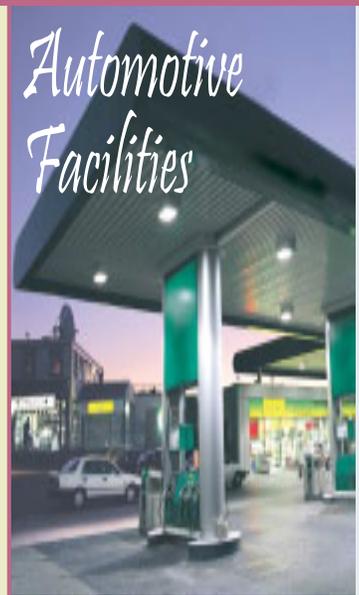
## Construction



## Agriculture

Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

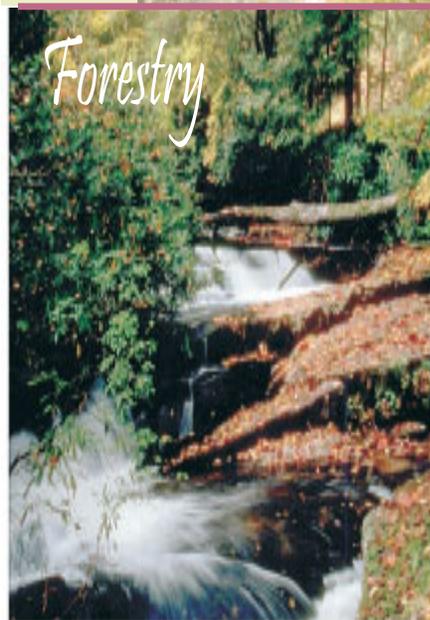
- ◆ Keep livestock away from streambanks and provide them a water source away from waterbodies.
- ◆ Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- ◆ Vegetate riparian areas along waterways.
- ◆ Rotate animal grazing to prevent soil erosion in fields.
- ◆ Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.



## Automotive Facilities

Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- ◆ Clean up spills immediately and properly dispose of cleanup materials.
- ◆ Provide cover over fueling stations and design or retrofit facilities for spill containment.
- ◆ Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- ◆ Install and maintain oil/water separators.



## Forestry

Improperly managed logging operations can result in erosion and sedimentation.

- ◆ Conduct preharvest planning to prevent erosion and lower costs.
- ◆ Use logging methods and equipment that minimize soil disturbance.
- ◆ Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- ◆ Construct stream crossings so that they minimize erosion and physical changes to streams.
- ◆ Expedite revegetation of cleared areas.

# Clean Water



*Everybody's  
Business*



## 10 Things You Can Do to Prevent Stormwater Runoff Pollution

- Use fertilizers sparingly and sweep up driveways, sidewalks, and gutters
- Never dump anything down storm drains or in streams
- Vegetate bare spots in your yard
- Compost your yard waste
- Use least toxic pesticides, follow labels, and learn how to prevent pest problems
- Direct downspouts away from paved surfaces; consider starting a rain garden
- Take your car to the car wash instead of washing it in the driveway
- Check your car for leaks and recycle your motor oil
- Pick up after your pet
- Have your septic tank pumped and system inspected regularly



For more information, visit  
[www.epa.gov/nps](http://www.epa.gov/nps) or  
[www.epa.gov/npdes/stormwater](http://www.epa.gov/npdes/stormwater)

# What is a Watershed?

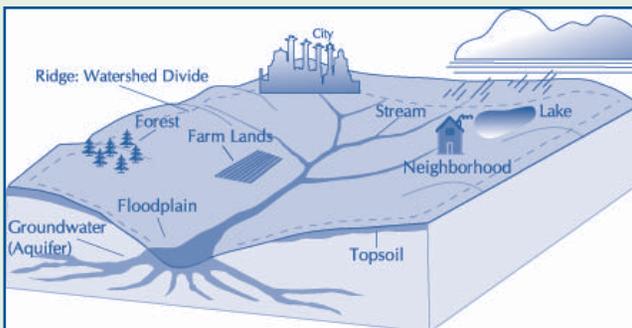
A watershed is an area of land that drains to a common point, such as a nearby creek, stream, river or lake. Every small watershed drains to a larger watershed that eventually flows to the ocean.

Watersheds support a wide variety of plants and wildlife and provide many outdoor recreation opportunities. Protecting the health of our watersheds preserves and enhances the quality of life for Kansas City area residents.

## What is Stormwater Runoff?

Stormwater is water from rain or melting snow. It flows from rooftops, over paved streets, sidewalks and parking lots, across bare soil, and through lawns and storm drains. As it flows, runoff collects and transports soil, pet waste, salt, pesticides, fertilizer, oil and grease, litter and other pollutants. This water drains directly into nearby creeks, streams and rivers, without receiving treatment at sewage plants.

Polluted stormwater contaminates local waterways. It can harm plants, fish and wildlife, while degrading the quality of water.



A typical watershed system

# MARC

Mid-America Regional Council  
600 Broadway, Suite 300  
Kansas City, Missouri 64105

For more information,  
visit [www.marc.org/Environment/Water](http://www.marc.org/Environment/Water)  
or call 816/474-4240.



## What is Sediment Pollution?

Winter Watershed Tip

Help keep excess sediment out of our creeks, streams and rivers



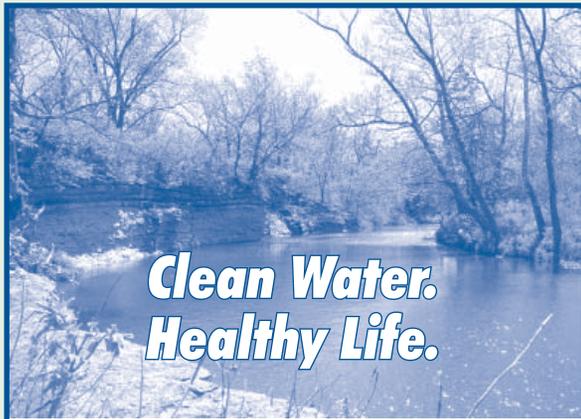
Clean Water.  
Healthy Life.

## What is sediment?

Sediment is the loose sand, clay, silt and other soil particles that settle at the bottom of a body of water. Sediment can come from soil erosion or from the decomposition of plants and animals. Wind, water and ice help carry these particles to rivers, lakes and streams.

### *Facts about Sediment*

- The Environmental Protection Agency lists sediment as the most common pollutant in rivers, streams, lakes and reservoirs.
- While natural erosion produces nearly 30 percent of the total sediment in the United States, accelerated erosion from human use of land accounts for the remaining 70 percent.
- The most concentrated sediment releases come from construction activities, including relatively minor home-building projects such as room additions and swimming pools.
- Sediment pollution causes \$16 billion in environmental damage annually.



## What's the problem?

Sediment entering stormwater degrades the quality of water for drinking, wildlife and the land surrounding streams in the following ways:

- Sediment fills up storm drains and catch basins to carry water away from roads and homes, which increases the potential for flooding.
- Water polluted with sediment becomes cloudy, preventing animals from seeing food.
- Murky water prevents natural vegetation from growing in water.
- Sediment in stream beds disrupts the natural food chain by destroying the habitat where the smallest stream organisms live and causing massive declines in fish populations.
- Sediment increases the cost of treating drinking water and can result in odor and taste problems.
- Sediment can clog fish gills, reducing resistance to disease, lowering growth rates, and affecting fish egg and larvae development.
- Nutrients transported by sediment can activate blue-green algae that release toxins and can make swimmers sick.
- Sediment deposits in rivers can alter the flow of water and reduce water depth, which makes navigation and recreational use more difficult.

## What can you do?

- Sweep sidewalks and driveways instead of hosing them off. Washing these areas results in sediment and other pollutants running off into streams, rivers and lakes.

- Use weed-free mulch when reseeded bare spots on your lawn, and use a straw erosion control blanket if restarting or tilling a lawn.



- Notify local government officials when you see sediment entering streets or streams near a construction site.

- Put compost or weed-free mulch on your garden to help keep soil from washing away.

- Avoid mowing within 10 to 25 feet from the edge of a stream or creek. This will create a safe buffer zone that will help minimize erosion and naturally filter stormwater runoff that may contain sediment.

- Either wash your car at a commercial car wash or on a surface that absorbs water, such as grass or gravel.

**For more information about erosion and sediment control, visit [www.marc.org/Environment/Water](http://www.marc.org/Environment/Water) or call 816/474-4240.**

# Bacterial Monitoring

URI WATERSHED WATCH, Cooperative Extension  
College of the Environment and Life Sciences (CELS)  
Department of Natural Resources Science (NRS)  
Coastal Institute in Kingston, 1 Greenhouse Road, Kingston, Rhode Island 02881-0804

Kelly Addy, Elizabeth Herron, and Linda Green

URIWW-2, March 2003 (updated May 2010)

## Why Monitor Bacteria?

Is it safe to swim in the water? That's a question we often hear when we say we are monitoring a favorite swimming spot. Researchers and regulatory agencies have determined that one way to answer that question is to conduct bacterial monitoring. They do this to identify the human health risk associated with recreational water contact. The bacteria selected for water quality monitoring rarely cause human illness directly; rather the presence of these bacteria *indicates* that fecal contamination may have occurred and pathogens may be present in the water. Pathogens are microorganisms that cause illnesses; they may be viruses, bacteria or protozoans. Direct measurement of these pathogens, such as giardia, cryptosporidium, and Norwalk virus, is expensive and impractical because:

- There are innumerable types of pathogens that may be in waterbodies; it would be impossible to check for all these pathogens.
- The presence of one pathogen may not indicate presence of others.
- Generally, simple laboratory techniques do not exist to measure pathogens.

Bacterial monitoring is a practical method to determine the potential health risk of water exposure. Bacteria are microscopic, single-celled organisms that can be found in virtually any environment. Bacterial indicators of pollution are the species found in the intestines of warm-blooded animals, including humans, where many pathogens also originate. Indicator bacteria in a waterway come from many sources (Figure 1), e.g., animal droppings, faulty or leaking septic or sewage systems, combined sewage overflows (CSOs, see Box 1), stormwater runoff, boat sanitary waste and disturbed sediments.

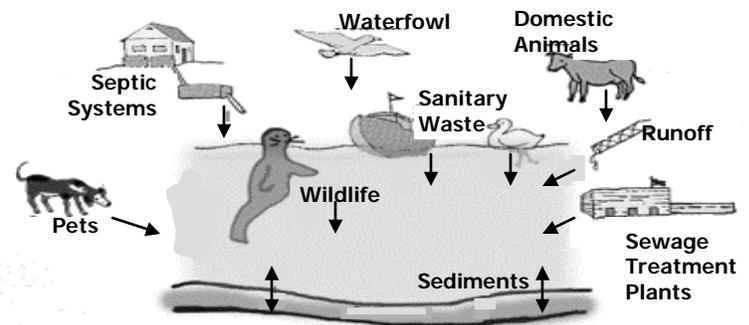


Figure 1: Potential sources of bacteria to a waterway (from Ely, 1997).

## What bacterial indicators are monitored?

Bacterial indicators should meet as many of the criteria listed in Box 2 as possible to ensure safe swimming water. Water quality monitors screen water samples most frequently for fecal coliform (F.C.), *Escherichia coli* or enterococci as bacterial indicators (see Box 3 for details). These indicators are prevalent in the intestines of warm-blooded animals and associated with fecal contamination. Total coliforms are a group of closely related bacteria, fecal coliforms are a subgroup of total coliforms and *E. coli* are a specific species of F.C. bacteria (Figure 2). Enterococci are another group of bacteria unrelated to the coliforms.

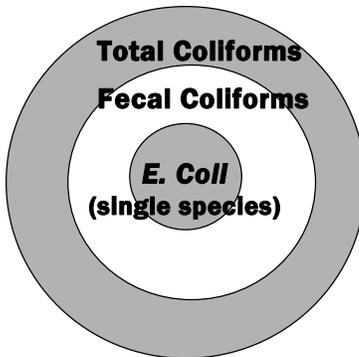
### Box 1: Combined Sewage Overflows (CSOs)

Combined Sewage Overflow systems carry storm water from roadways and untreated sewage from home and businesses in the same pipes. On a dry day, all this waste water is treated by the sewage treatment plant. However, on very rainy days, the sewage treatment plant may not be able to treat all the water and may need to release some untreated waste water into waterways. CSO control plans are in progress in the Providence area to minimize these inputs to Upper Narragansett Bay.

## Box 2: Criteria for a good bacterial indicator (adapted from Ohrel and Register, 2001).

### Good Bacterial Indicators Are:

- Present whenever intestinal pathogens are present
- Useful in fresh and marine waters
- Alive longer than the hardest intestinal pathogen
- Found in a warm-blooded animal's intestines
- Analyzed with an easy testing method
- Directly correlated with the degree of fecal contamination



*Fig. 2 (left): Breakdown of coliform bacteria (adapted from Ely, 1998).*

*Fig. 3 (bottom left): Filtering a water sample for the Membrane Filtration Method.*

*Fig 4 (below): Checking for positive bacterial results using the MPN method (Photo by IDEXX).*



## How are bacteria monitored?

Since bacteria are everywhere, great care must be taken to avoid contamination when collecting water samples for analysis. Water sample containers must be sterile and non-toxic. Plastic bottles that have been autoclaved (an autoclave is like a giant pressure cooker where objects are sterilized inside a chamber at high temperature and pressure) are most frequently used. Because water sampling devices usually can't be sterilized, samples are collected directly into the sampling container - basically scooped into the bottle. Monitors open the container just before sampling, being careful not to touch the inside of the container or the lid with anything other than the water. The sample container is closed immediately after collection, with samples stored on ice until delivery. Samples should be analyzed within six hours of collection. In the laboratory, samples are most commonly processed with either Membrane Filtration (MF) or multiple tube fermentation methods. The multiple tube fermentation (or the proprietary IDEXX tray version) method yields the Most Probable Number (MPN) of bacteria and is commonly referred to as MPN.

The MF method is a well-established method approved by most federal and state agencies to assess bacterial concentrations. Water is pulled through a filter that traps all the bacteria from the sample (Figure 3). The filter is then placed in a petri dish with growth medium and incubated at a specific temperature. The resultant bacterial colonies that grow are visible to the human eye and easily counted. Varying the type of growth medium, temperature and incubation periods help laboratories to isolate particular species of bacteria.

Unlike MF methods, MPN methods don't provide a specific count of bacteria. Rather, they are based on a statistical probability that the sample contained a certain number of bacteria based on a series of test tube analyses with water and species specific liquid media that positively identify the presence of the indicator bacteria. The IDEXX method, approved by US EPA and the RI Department of Health (RIHealth), substitutes a plastic tray and sealer for the tubes, and relies on their own reagent designed for specific bacteria indicator species (including total coliform, *E. coli* and enterococci) (Figure 4).

URI Watershed Watch (URIWW) uses an MF method with mTec media to assess fecal coliform, the indicator species required by the National Shellfish Sanitation Program (NSSP) for classifying shellfish waters, for some samples. Enterococci is analyzed with the IDEXX MPN method for all of the sites monitored through URIWW as an indication of safety for recreational uses. The URIWW analytical laboratory is certified by RIHealth for both methods, and reports results to RI DEM and RIHealth.

## Box 3: Common Indicator Bacteria.

### Total Coliforms and Fecal Coliforms:

Total and fecal coliforms have been used as bacterial indicators since the 1920's. Total coliforms (T.C.) as a general group are *not* particularly useful in terms of estimating human health risks because they can also be found in soil and plants naturally. Fecal coliforms (F.C.), a subgroup of the total coliforms, are considered a more useful indicator of human health risk because they are more often associated with fecal sources, even though a few non-fecal species exist, and are widely used to test recreational waterways and to classify shellfish waters.

### *E. coli* and Enterococci

*E. coli* and enterococci are bacteria that occur primarily in the intestinal track of warm-blooded animals. The US Environmental Protection Agency (US EPA) and other researchers have found better correlations between swimming-associated gastrointestinal illness and *E. coli* and enterococci in fresh waters, and with enterococci in marine waters than with T.C. or F.C. (US EPA 2002).

## What are the water quality standards for bacteria?

Current RI water quality regulations use enterococci for recreational contact (swimming) and F.C. for shellfish waters and as an overall indicator of water quality. RI bacterial standards for recreational use in fresh and salt waters are listed in Table 2. The standards include single sample maximum values, as well as standards based on the geometric mean of multiple samples. Information on specific regulations can be found at the RI DEM website (<http://www.dem.ri.gov/pubs/regs/index.htm#WR>). To learn more about how areas designated or licensed as swimming beaches are monitored see the RIHealth site (<http://www.ribeaches.org/>). The US EPA criteria (US EPA, 1986, 2002) are based on *E. coli* and enterococci as the bacterial indicators (Table 2).

URIWW is state certified to analyze samples for F.C., *E. coli* and enterococci.

**Table 2: Bacterial standards for recreational water uses by RI<sup>1</sup> and EPA**

Water Type	Current RI Standard <sup>1</sup>		EPA Criteria <sup>2</sup>	
	———— count per 100 ml water sample ————			
Freshwater	Enterococci - Single Sample	61	Enterococci - Geometric mean	33
	Enterococci - Geometric mean	33 / 54*	<i>E.coli</i>	126
Saltwater	Enterococci - Single Sample	104	Enterococci - Geometric mean	35
	Enterococci - Geometric mean	35	* = non-designated beach	

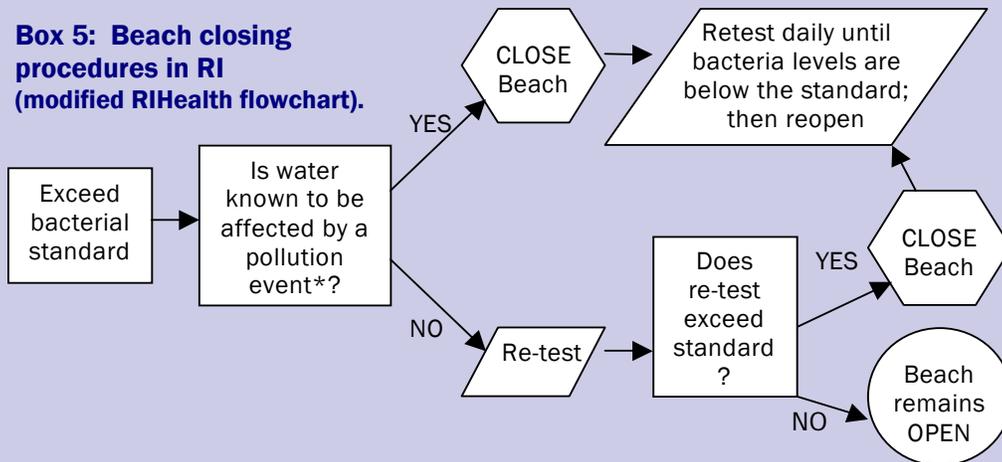
<sup>1</sup> For more details on RI water classes and other bacterial standards please see RI DEM: [www.dem.ri.gov/pubs/regs/index.htm#WR](http://www.dem.ri.gov/pubs/regs/index.htm#WR)

<sup>2</sup> From US EPA 1986 and 2002.

### Box 4: Who monitors bacteria in RI?

The RI Department of Health requires monitoring at all of RI's licensed salt and freshwater beaches and posts subsequent beach closings (Box 5). The RI Department of Environmental Management (DEM) Shellfish program collects samples regularly in shellfish waters and conducts sanitary surveys. RI DEM, with help from URI Watershed Watch (URIWW) and other volunteer monitoring programs, monitors bacterial levels in additional water bodies. URIWW monitors waterways for indicator bacteria to augment the state's dataset and to point out potential areas of concern.

### Box 5: Beach closing procedures in RI (modified RIHealth flowchart).



\* Pollution event may be a storm related CSO discharge.

Corner illustration from the University of Wisconsin Cooperative Extension

## What do bacterial standards mean?

Recreational contact with waters at or above standard levels of indicator bacteria does not mean you will definitely get sick; however, your chances of getting sick are increased. The US EPA criteria are based on health risk of contracting gastrointestinal illnesses (EPA, 1986). More research is needed on the risk of contracting upper respiratory and skin ailments from recreational water contact. RI's procedures for beach closings are outlined in Box 5.

As in any facet of water quality monitoring, the US EPA and other water quality professionals emphasize the importance of repeat analysis of waterbodies for indicator bacteria. Single samples may give the most recent information about the water quality and a basis on which to post beach closings or advisories for potential health risks. However, repeat sampling should be conducted to determine variability in indicator bacterial levels or if a chronic contamination problem exists.

### What can YOU do to minimize the amount of bacteria entering waterways?

- Have your septic system inspected and pumped regularly.
- Properly dispose of pet waste.
- Don't feed waterfowl.
- Pump out boat waste at approved pumping stations.
- Support community plants to construct or upgrade sewage treatment plant and eliminate CSO's

### For further information on bacterial monitoring:

- Ely, E. 1998. Bacteria Testing Part 1: Methods Primer. *The Volunteer Monitor*. Volume 10, No. 2.
- Ely, E. 1998. Bacteria Testing Part 2: What Methods do Volunteer Groups Use? *The Volunteer Monitor*. Volume 10, No. 2.
- Heufelder, G. 1997. Interpreting Fecal Coliform Data: Tracking Down the Right Sources. *The Volunteer Monitor*. Volume 9, No. 2.
- Miceli, G.A. 1998. Bacterial Testing Q & A. *The Volunteer Monitor*. Volume 10, No. 2.
- Ohrel Jr., R.L. and K.M. Register. 2001. *Volunteer Estuary Monitoring: A Methods Manual*. Second Edition. U.S. EPA.  
This manual is available on-line at:  
[www.epa.gov/owow/estuaries/monitor/](http://www.epa.gov/owow/estuaries/monitor/)
- Turin, D. and M. Liebman. 2002. Keeping Posted: Communicating Health Risks at Public Beaches. *Journal of Urban Technology* 9:45-69.
- US EPA. 1986. *Ambient Water Quality Criteria for Bacteria-1986*. EPA/440/5-84-002.
- US EPA. 2002. *Draft Implementation Guidance for Ambient Water Quality Criteria for Bacteria*. EPA-823-B-02-003.

RI DEM Office of Water Resources: <http://www.dem.ri.gov/pubs/regs/index.htm#WR>

RI DOH's Bathing Beaches Program: <http://www.ribeaches.org/>

Issues of the *Volunteer Monitor* :  
[www.epa.gov/owow/volunteer/vm\\_index.html](http://www.epa.gov/owow/volunteer/vm_index.html)

<http://www.usawaterquality.org/volunteer/Ecoli/>

### What can be done about high bacteria levels?

Repeat measurements should be performed to determine if there is a long-term bacterial problem within a waterway and to identify any seasonal variation in bacterial levels. Waterbodies surrounded by summer communities can experience a surge in bacteria levels due to increased near-shore population and the resultant waste during the summer. In addition, warmer water may protect bacteria and promote growth. Conversely in the winter, bacteria tend to die off in cold waters. It may also be useful to sample for bacteria following storm events when CSOs may overflow and runoff may wash fecal waste from the land into water. These seasonal and storm event data often guide agencies in advisory protocols and may help to track bacterial sources.

If a chronic bacterial problem is diagnosed, sanitary shoreline surveys are usually conducted to determine the source of the bacteria. Such a survey involves an investigator looking throughout the watershed for evidence of failing septic systems, broken sewer pipes, and storm drains discharging water during dry weather. Additional observations of large congregations of waterfowl, wildlife, farm animals or pets are noted. Dyes or tracers may be used to determine the pathways of some potential pollutants. Once the source of the high levels of bacteria is determined, remediation action can be taken.

There have been many advances in bacterial source tracking using state-of-the-art microbiological techniques. Researchers compare the DNA of the bacteria in the water sample with DNA of known sources of fecal contamination. It is important to note that the US EPA no longer allows broad exemptions to their regulations for waterbodies that have identified the source of high bacteria loads as non-human (US EPA, 2002). More research needs to be conducted on the potential of human health risk from the exposure to non-human fecal contamination. Therefore, the goal of this DNA fingerprinting is to help identify the source of the contamination for remediation purposes.

In some instances where bacterial contamination cannot be resolved, most likely due to economic or social restraints, EPA allows states to deem waterbodies suitable for only secondary recreational contact. Activities such as canoeing or motor boating are allowed because water contact and immersion seem unlikely.

To learn more about the URI Watershed Watch program or their bacterial monitoring, please contact:

Elizabeth Herron, Program Coordinator

Phone: 401-874-4552

Email: [emh@uri.edu](mailto:emh@uri.edu)

Linda Green, Program Director

Phone: 401-874-2905

Email: [lgreen@uri.edu](mailto:lgreen@uri.edu)

[www.uri.edu/ce/wq/ww/](http://www.uri.edu/ce/wq/ww/)



Kelly Addy, M.S., Elizabeth Herron, M.A., and Linda Green, M.S., are members of the Dept. of Natural Resources Science, College of the Environment and Life Sciences, University of Rhode Island. Contribution #3983 of the RI Agricultural Experiment Station, with support from RI Cooperative Extension, RI Department of Environmental Management, and RI Seagrant. Cooperative Extension in Rhode Island provides equal opportunities without regard to race, age, religion, color, national origin, sex or preference, creed or handicap.



**DOG WASTE**  
IS A THREAT TO THE  
HEALTH OF OUR  
CHILDREN, DEGRADES  
OUR TOWN, TRANSMITS  
DISEASE.  
LEASH, CURB AND  
CLEAN UP  
AFTER YOUR DOG



Rec. Dept.



Deerfield Park





Stormwater Markers

07/25/2014

# Draining Swimming Pools



## Remember, Only Rain in the Storm Drain

A pool owner may be tempted to discharge pool water into the street and gutter that leads to a storm drain. However, the purpose of the storm drain system is to protect against flooding and water damage by quickly removing rain water from our streets. This water gets no treatment and may ultimately drain into our waterways.

## How to Properly Drain Pool Water

During the spring and fall, large amounts of water from swimming pools are discharged into the storm sewer system. The storm sewer system in Smithfield drains directly into its wetlands, streams and ponds. Swimming pool water can have devastating effects on the health of our surface waters if not disposed of properly. The chlorine, bromine, algaecides, cleaning chemicals and lack of dissolved oxygen in pool water can kill fish and other aquatic life. **Only dechlorinated, pH neutral, chemical-free, clean water may be slowly discharged into the storm drain system.**

## Draining Your Pool Water Into a Storm Drain? Prepare the Pool Water by:

- Removing chlorine or bromine from the water prior to discharge. Use removal agents or allow untreated water to sit for approximately 10 days to allow the chlorine or bromine to dissipate to levels below 0.1 mg/l. Use a pool test kit to ensure there aren't any detectable levels of

chlorine or bromine before discharging the water. Chlorine and bromine are toxic to fish and other animals like crayfish that live in our streams.

- Adjusting the water's pH to 7 (neutral). Use appropriate buffering compounds to adjust the pH level and a test kit to check the pH level before discharging the water.
- Removing/filtering out debris, including dirt, leaves, sticks or algae before draining pool water. This helps prevent suspended solids from entering waterways, which is harmful to aquatic species.
- Discharging the water slowly over a vegetated (grass) area over the course of several days to allow the water to soak into the ground and reduce the amount that goes into the storm drain.

## Not Permitted:

- **Draining your pool into the sanitary sewer system is strictly prohibited without prior approval from the Sewer Authority.**
- **Do not drain saltwater swimming pools into a storm drain.**
- **Do not discharge cloudy, dirty or wash water from swimming pool cleaning activities into a storm drain.**

## Saltwater Swimming Pools

Please be aware that water from saltwater pools cannot be discharged to either the storm drain system or to the sanitary sewer system.

Once dissolved into pool water, salt cannot be removed from that water without a very expensive reverse-osmosis treatment. All pool water, through evaporation and chemical additions, will become too "hard" to accept additional chemistry adjustments. Consequently, pools will generally need to be drained and refilled every 5-8 years. Currently, the only legal method to drain and dispose of this brine (saltwater) is to contract with a trucking company and to subsequently have 5 to 6 truck loads of this brine pumped from the pool and trucked to an ocean-discharging disposal facility. This disposal process is estimated to cost from \$4,000-\$6,000.

## Smithfield Storm Sewer Ordinance

[Chapter 225-6 A.\(1\)](#) Prohibition of illicit discharges.

No person shall discharge or cause to be discharged into a storm drainage system, directly or indirectly, any materials, including but not limited to pollutants, other than stormwater, except as authorized by this article or a discharge permit.

[Chapter 225-8](#) Unauthorized connections prohibited.

It shall be unlawful for any person to make any connection to the Town's MS4 (municipal separate storm sewer system) without written authorization from the Town, or to reconnect access when it has been suspended or terminated due to an illicit discharge without the prior approval of the Town.

[Chapter 225-13 B.](#) Violations and penalties.

If an illicit discharge enters directly or indirectly into the municipal separate storm sewer system or an illicit connection is detected, the property owner shall cease the discharge or connection. If the discharge or connection does not cease within the time frame given in the notice of violation, the owner may be fined in accordance with the provisions of § 1-9, General Provisions, Article II, Violation and Penalties, of the Smithfield Code of Ordinances.

## Smithfield Sewer Ordinance

[Chapter 294-29 D.](#) Prohibited use of manhole.

No person shall discharge or cause to be discharged any surface water, groundwater, stormwater, roof runoff water, subsurface drainage, swimming pool water, cooling water, septic or cesspool wastes or industrial wastewater into any sewer manhole.

[Chapter 294-30](#) Unpolluted water.

All stormwater, surface water and subsurface water seeping to ground level are to be drained, or discharged, to stormwater drains which are specifically designed for such disposal of waters listed above; or they are to be drained to natural outlets that have been approved by the Town and/or the Highway Department.

## Smithfield Sewer Authority Rules and Regulations

[Chapter A361-5](#) Discharge into system, approval required.

No unauthorized person(s) shall discharge or cause to be discharged any wastes into a public sewer unless the acceptance of these wastes has been approved by the Authority. The Authority requires 45 days' prior written notification by any person of the proposed change in volume or character of pollutants over that being discharged into the wastewater treatment works or of a proposed new discharge into the wastewater treatment works of pollutants from any source discharging more than 2,000 gallons per day.

[Chapter A361-6](#) Swimming pool discharge; notification; owner responsibility.

The Authority shall be notified by the owner of the proposed discharge of water from a swimming pool to the public sewer. The Authority shall have the right to approve or deny the request, designate the time and rate of flow permitted, and to enter upon the premises to inspect the project prior to and during the operation. If an owner fails to provide such notification or disregards instruction whether accidental or intentional, the owner will be held responsible for any damage that may be caused from such discharge subject to the enforcement powers contained in these rules and regulations, and the Authority shall not be held liable for said violation.



**Town of Smithfield**  
**64 Farnum Pike**  
**Smithfield, RI 02917**  
**(401) 233-1041**



# Conservationally Speaking

By Sandra Mayer  
Smithfield Conservation Commission

## Waterfowl, Wildlife, Waste, and the Woonie

The Woonasquatucket River is historically and naturally one of the most important physical features of our town. "Woonasquatucket" is the Algonquian word for "where the salt water ends". The river begins in the swamps west of Primrose Pond in North Smithfield and runs southeast past Primrose Pond to Stillwater Reservoir. Below the reservoir, the river continues southeast, providing water to numerous ponds, until going under Providence Place mall and joining the Moshassuck River in front of the One Citizens Plaza building in downtown Providence to form the Providence River. It flows approximately 15.8 miles and drains a watershed of 50 sq. mi). Together with the Blackstone River to the north, the Woonasquatucket was designated an American Heritage River in 1998. The river played an active role in the industrial revolution and the history of Rhode Island in the 19th century. Evidence of this industrial history and heritage remains in the fact that there are 18 dams along the river's length. To declare that this is a river worth protecting and celebrating is more than obvious—it is essential.

One of the inherent dangers of a popular, centrally-located, scenic river is pollution. This pollution is not entirely due to industrial waste entering the waters. It is not entirely due to human disregard. Some of it is almost "accidental" pollution. Continued development and encroachment of industry into wildlife areas distal to the water can cause densities of both humans and wildlife to increase and animal waste to be more prevalent closer to the river, where the animals are concentrated by loss of habitat. The

proximity of this "wild" waste to the water increases the percentage of entry of the pollutants into the water, rather than being located on more distant land.

Domestic animals such as dogs and cats are also potential significant sources of bacteria to rivers. Much of this source of land and water pollution can be avoided by proper disposal of pet waste by the pet owners during walks or at home. Low-density residential developments are common in the northern portion of the watershed. If residents are not properly disposing of pet waste, the bacteria associated with that waste could enter and contaminate the streams. Pet waste left on the street or lawn doesn't just "go away" either - it gets washed into the streams and ponds in our towns. Owners need to protect the quality of the water flowing from Stump and Georgiaville



Ponds from pet waste that can then be washed into and onto the Stillwater Scenic Walkway when it rains. This walkway is used daily, year-round by hikers, bikers, strollers, and walkers. Some also have dogs that need to be cleaned up after. It should be noted that

when this waste dries, it can become airborne - presenting the additional possibility of being breathed in by runners and walkers if it isn't removed.

A RI Department of Health bulletin about the subject of pet waste states the following:

"Rain washes pet waste down storm drains and into waterways like rivers, bays, and beaches. This can make people sick from salmonella, E.coli and other infections. Pet waste is very toxic." The Environmental Protection Agency reports:

- Waste produced by just 100 dogs in two or three days...can contain enough bacteria to temporarily close a bay to swimming and shellfishing.
- The nitrogen also promotes algae blooms that can be toxic to humans and other animals, and deplete water of its own oxygen that is needed to benefit aquatic life.

The problem is big. The "fix" is easy...when you walk your pet, bring along a plastic bag and scoop (or use the bag itself to pick up the waste). Then put the bag containing the waste into a proper trash receptacle. One can even purchase plastic or metal "scoopers" with long handles and tines to make the task easier and safer. Responsible pet owners do this regularly: leash, keys, collar, bottle of water, plastic bag, and scoop---grab them and you're ready for a walk. A walk on trails that are on land that is usually owned and maintained by the Smithfield Conservation Commission or the Smithfield Land Trust, in other words: owned by you and your neighbors. This is public property for the enjoyment and health of all who choose to walk, bike, stroll, or hike there.

**RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034**

**APPENDIX B**

**PUBLIC INVOLVEMENT**

Smithfield Department of Public Works &  
Smithfield Conservation Commission

**DATE: APRIL 19, 2015**

**TIME: 9:00AM-1:00 PM**

Join us for Smithfield's annual  
Community Clean Up!

We provide the supplies. You provide  
time and community pride!

***LOCATION:***

*Department of Public Works*

*3 Spragueville Rd.*

*(Behind Dave's Towing)*

***Free Tee Shirt for Volunteers***

***While Supplies Last!!!***

ADDITIONAL QUESTIONS:

CONSERVATION COMMISSION—SANDY (401) 595-7603

DPW RECYCLING (401) 233-1034

Earth Day 2015



# The Town of Smithfield Celebrates Earth Day Join our clean-up!



Sunday, April 19th 9AM-1PM  
Smithfield DPW  
3 Spragueville Rd  
Behind Dave's Towing

RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034

# APPENDIX C

PUBLIC NOTIFICATION OF ANNUAL REPORT

RIPDES PHASE II ANNUAL REPORT, YR 12  
TOWN OF SMITHFIELD, RI

**TOWN OF SMITHFIELD**  
**PUBLIC NOTICE OF PUBLIC HEARING**  
**DRAFT RIPDES PHASE II STORMWATER ANNUAL REPORT**

A draft Phase II Stormwater Annual Report, prepared in accordance with the Rhode Island Pollution Discharge Elimination System (RIPDES) program general permit for facilities operated by regulated small municipal separate storm sewer systems (MS4s), will be available for review at the Town Engineer's Office and at the Town's website starting February 12, 2016. A copy of the Stormwater Management Program Plan (SWMPP) will also be available for review at the Town Engineer's Office.

RIPDES Permit No.: RIR040034

Copies of the Phase II Stormwater Year Twelve (12) Annual Report may be obtained at no cost by visiting the Town's website at [smithfieldri.com/engineer](http://smithfieldri.com/engineer) and follow the links for the RIPDES Small MS4 Annual Report.

For any questions, contact:

Engineering Department  
Town of Smithfield  
64 Farnum Pike, Smithfield, RI 02917  
Telephone Number: 233-1041

The administrative record containing all documents is on file and may be inspected by appointment at the Town Engineer's Office mentioned above between 8:30 a.m. and 4:00 p.m., Monday through Friday, except holidays. **Should public comments be received, in writing on or before 4:00 p.m. February 26, 2016, a public hearing will be scheduled for the March 1, 2016 Town Council meeting at 7:00 p.m. in the Smithfield Town Hall.**

RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034

# APPENDIX D

## OUTFALL INVENTORY (UPDATED)

RIPDES PHASE II ANNUAL REPORT, YR 12  
TOWN OF SMITHFIELD, RI

**OUTFALL INVENTORY - 2015**

Name of Town: Smithfield														
General Information			Location in Decimal Degrees				Receiving Water Body Information				Outfall Information			
Inspector(s)	Outfall ID	Date	Longitude	Latitude	Method of Collection	Accuracy in meters	Horizontal Datum	Photo Name	Type	Name	Material	Shape	Diameter	Type
KC	1	2003	-71.5029149	+41.8788617	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_001.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	2	2003	-71.5029048	+41.8788606	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_002.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	3	2003	-71.5016385	+41.8821305	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_003.jpg	FRESHWATER_WETLAND	Woonasquatucket River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	4	2003	-71.5043722	+41.8865761	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_004.jpg	RIVER/STREAM	Whipple Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	5	2003	-71.5042950	+41.8865146	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_005.jpg	RIVER/STREAM	Whipple Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	6	2003	-71.5056777	+41.8892595	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_006.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	7	2003	-71.5055959	+41.8893775	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_007.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	8	2003	-71.5594422	+41.9018050	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_008.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	9	2003	-71.5389623	+41.8846993	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_009.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	10	2003	-71.5221201	+41.9027432	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_010.jpg	FRESHWATER_WETLAND	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	Private	2011	-71.5007773	+41.8939325	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_011.jpg	FRESHWATER_WETLAND	Woonasquatucket River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	12	2011	-71.5616434	+41.8689267	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_012.jpg	FRESHWATER_WETLAND	Hopkins Pond	HDPE	CIRCULAR	12"-35"	SINGLE
MC, BC	13	12/30/2014	-71.5115449	+41.8818531	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_013.jpg	RIVER/STREAM	Woonasquatucket River	CLAY	CIRCULAR	12"-35"	SINGLE
KC	14	2011	-71.5586910	+41.9010494	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_014.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
MC, BC	15	12/1/2014	-71.5438488	+41.8672381	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_015.jpg	LAKE/POND	Factory Pond	CB APRON	OTHER	12"-35"	SINGLE
KC	16	2003	-71.4938424	+41.8720289	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_016.jpg	RIVER/STREAM	Greystone Mill Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	17	2003	-71.5358314	+41.8859896	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_017.jpg	RIVER/STREAM	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	18	2003	-71.5133931	+41.8927115	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_018.jpg	LAKE/POND	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	19	2003	-71.5180703	+41.8981098	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_019.jpg	LAKE/POND	Georgiaville Pond	RCP	CIRCULAR	36"-59"	SINGLE
KC	Private	2011	-71.5041914	+41.8931036	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_020.jpg	RIVER/STREAM	Woonasquatucket River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	Private	2011	-71.5034980	+41.8919368	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_021.jpg	RIVER/STREAM	Woonasquatucket River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	Private	2011	-71.5001402	+41.8910195	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_022.jpg	FRESHWATER_WETLAND	Whipple Brook	HDPE	CIRCULAR	12"-35"	SINGLE
MC, BC	23	1/21/2015	-71.5564855	+41.8696646	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_023.jpg	RIVER/STREAM	Hopkins Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	24	2003	-71.5160098	+41.8925314	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_024.jpg	FRESHWATER_WETLAND	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	25	2003	-71.5142259	+41.8925265	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_025.jpg	RIVER/STREAM	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	26	2003	-71.5160547	+41.8900255	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_026.jpg	FRESHWATER_WETLAND	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	27	2011	-71.5676169	+41.8861341	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_027.jpg	LAKE/POND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	28	2011	-71.5308551	+41.8802681	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_028.jpg	FRESHWATER_WETLAND	Mountindale Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	29	2011	-71.5304606	+41.8786478	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_029.jpg	FRESHWATER_WETLAND	Mountindale Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	30	2011	-71.5692189	+41.8760673	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_030.jpg	FRESHWATER_WETLAND	Stillwater River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	31	2011	-71.5687222	+41.8635379	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_031.jpg	RIVER/STREAM	Slack Reservoir	PVC	CIRCULAR	6"-11"	DOUBLE
KC	32	2011	-71.5167919	+41.8913788	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_032.jpg	RIVER/STREAM	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	33	2011	-71.5470326	+41.8998011	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_033.jpg	LAKE/POND	Woonasquatucket Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE
KC	34	2011	-71.5504686	+41.8822847	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_034.jpg	FRESHWATER_WETLAND	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	35	2011	-71.5487714	+41.8810280	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_035.jpg	FRESHWATER_WETLAND	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	36	2003	-71.4902749	+41.8855581	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_036.jpg	FRESHWATER_WETLAND	West River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	37	2003	-71.4884667	+41.8857942	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_037.jpg	FRESHWATER_WETLAND	West River	HDPE	CIRCULAR	12"-35"	SINGLE
	Vacant													
KC	39	2003	-71.4956840	+41.8955413	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_039.jpg	FRESHWATER_WETLAND	Gould's Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	40	2011	-71.5540116	+41.8822983	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_040.jpg	FRESHWATER_WETLAND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	41	2003	-71.4909265	+41.8972215	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_041.jpg	FRESHWATER_WETLAND	Whipple Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	42	2003	-71.4925970	+41.8993802	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_042.jpg	FRESHWATER_WETLAND	Gould's Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	43	2003	-71.4931415	+41.8998734	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_043.jpg	FRESHWATER_WETLAND	Gould's Pond	RCP	CIRCULAR	12"-35"	SINGLE
MC	44	4/1/2014	-71.4964046	+41.9003651	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_044.jpg	RIVER/STREAM	Gould's Pond	HDPE	CIRCULAR	12"-35"	SINGLE
KC	45	2003	-71.4963837	+41.9003402	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_045.jpg	RIVER/STREAM	Gould's Pond	CMP	CIRCULAR	12"-35"	SINGLE
KC	46	2003	-71.4969015	+41.8996342	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_046.jpg	RIVER/STREAM	Gould's Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	47	2003	-71.4967675	+41.8996815	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_047.jpg	RIVER/STREAM	Gould's Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	48	2003	-71.4950040	+41.9024509	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_048.jpg	RIVER/STREAM	Gould's Pond	CMP	CIRCULAR	12"-35"	SINGLE
KC	49	2003	-71.4968363	+41.9014418	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_049.jpg	RIVER/STREAM	Gould's Pond	CMP	CIRCULAR	36"-59"	SINGLE
KC	50	2003	-71.4913528	+41.9055102	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_050.jpg	RIVER/STREAM	Gould's Pond	RCP	CIRCULAR	12"-35"	SINGLE
MC, BC	Private	2/19/2015	-71.5406937	+41.9381557	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_051.jpg	FRESHWATER_WETLAND	Hanton Brook	HDPE	CIRCULAR	12"-35"	SINGLE
KC	52	2003	-71.4958923	+41.8902785	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_052.jpg	RIVER/STREAM	Whipple Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	53	2003	-71.5034513	+41.8971307	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_053.jpg	RIVER/STREAM	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE

**OUTFALL INVENTORY - 2015**

Name of Town: Smithfield														
General Information			Location in Decimal Degrees				Receiving Water Body Information				Outfall Information			
Inspector(s)	Outfall ID	Date	Longitude	Latitude	Method of Collection	Accuracy in meters	Horizontal Datum	Photo Name	Type	Name	Material	Shape	Diameter	Type
KC	54	2003	-71.5092362	+41.9016779	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_054.jpg	RIVER/STREAM	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	55	2003	-71.5096098	+41.9010085	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_055.jpg	RIVER/STREAM	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
MC, BC	56	4/27/2015	-71.4961582	+41.9359059	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_056.jpg	RIVER/STREAM	Woonsocket Reservoir #3	RCP	CIRCULAR	12"-35"	SINGLE
KC	57	2003	-71.5016135	+41.9198039	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_057.jpg	FRESHWATER_WETLAND	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	58	2011	-71.5779403	+41.9063271	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_058.jpg	LAKE/POND	Nine Foot Brook	HDPE	CIRCULAR	12"-35"	SINGLE
KC	59	2003	-71.5037101	+41.9128292	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_059.jpg	RIVER/STREAM	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
MC	60	4/1/2014	-71.5073357	+41.8844872	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_060.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	36"-59"	SINGLE
KC	61	2003	-71.4909991	+41.9410664	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_061.jpg	LAKE/POND	Woonsocket Reservoir #3	RCP	CIRCULAR	12"-35"	SINGLE
MC, BC	62	4/27/2015	-71.4963036	+41.9358410	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_062.jpg	RIVER/STREAM	Woonsocket Reservoir #3	CMP	CIRCULAR	12"-35"	SINGLE
KC	63	2003	-71.5294218	+41.8655354	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_063.jpg	LAKE/POND	Hawkins Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	64	2003	-71.5492346	+41.9281538	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_064.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	65	2003	-71.5501126	+41.9280451	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_065.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	66	2003	-71.5500222	+41.9278965	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_066.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	67	2003	-71.5510136	+41.9278508	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_067.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	68	2003	-71.5478886	+41.9228942	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_068.jpg	LAKE/POND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	69	2003	-71.5479871	+41.9208254	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_069.jpg	RIVER/STREAM	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	70	2003	-71.5493303	+41.9259047	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_070.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	71	2003	-71.5681668	+41.9003010	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_071.jpg	LAKE/POND	Sprague Upper Reservoir	PVC	CIRCULAR	6"-11"	SINGLE
KC	72	2003	-71.5302898	+41.9098205	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_072.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	73	2003	-71.5304883	+41.9096844	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_073.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	74	2003	-71.5295051	+41.9088597	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_074.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	75	2003	-71.5279937	+41.9108404	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_075.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
MC, BC	76	4/29/2015	-71.5051288	+41.9206441	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_076.jpg	RIVER/STREAM	Harris Brook	HDPE	CIRCULAR	12"-35"	SINGLE
KC	77	2003	-71.5228048	+41.9074920	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_077.jpg	FRESHWATER_WETLAND	Capron Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	78	2003	-71.5215061	+41.9058699	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_078.jpg	LAKE/POND	Capron Pond	RCP	CIRCULAR	12"-35"	SINGLE
MC, BC	Private	1/8/2015	-71.5655689	+41.8628188	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_079.jpg	LAKE/POND	Slack Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE
MC, BC	Private	1/8/2015	-71.5656862	+41.8628945	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_080.jpg	LAKE/POND	Slack Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	81	2011	-71.5289114	+41.9115269	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_081.jpg	FRESHWATER_WETLAND	Stillwater Pond	HDPE	CIRCULAR	12"-35"	SINGLE
KC	82	2011	-71.5421256	+41.8645530	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_082.jpg	LAKE/POND	Factory Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	83	2003	-71.5493870	+41.9133460	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_083.jpg	LAKE/POND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	84	2003	-71.5508147	+41.9155729	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_084.jpg	LAKE/POND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	85	2003	-71.5529377	+41.9199506	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_085.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	86	2003	-71.5589402	+41.9246598	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_086.jpg	RIVER/STREAM	Latham Brook	CMP	CIRCULAR	12"-35"	SINGLE
KC	87	2003	-71.5605957	+41.9332003	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_087.jpg	FRESHWATER_WETLAND	Latham Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	88	2003	-71.5606260	+41.9334814	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_088.jpg	FRESHWATER_WETLAND	Latham Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	89	2003	-71.5577690	+41.9323784	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_089.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
MC	90	10/5/2015	-71.5116469	+41.8719570	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_090.jpg	RIVER/STREAM	Hawkins Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	91	2003	-71.5536145	+41.9293189	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_091.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	92	2003	-71.5825724	+41.9321125	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_092.jpg	FRESHWATER_WETLAND	Nine Foot Brook	PVC	CIRCULAR	6"-11"	SINGLE
KC	93	2003	-71.5593635	+41.9201136	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_093.jpg	RIVER/STREAM	Latham Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	94	2003	-71.5351880	+41.8683360	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_094.jpg	FRESHWATER_WETLAND	Reaper Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	95	2003	-71.5357883	+41.8678386	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_095.jpg	FRESHWATER_WETLAND	Reaper Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	96	2003	-71.5364888	+41.8674489	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_096.jpg	FRESHWATER_WETLAND	Reaper Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	97	2003	-71.5506795	+41.8763430	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_097.jpg	RIVER/STREAM	Stillwater River	CMP	CIRCULAR	12"-35"	SINGLE
KC	98	2003	-71.5545055	+41.8744584	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_098.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	99	2003	-71.5547205	+41.8744104	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_099.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	100	2003	-71.5537441	+41.8746336	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_100.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	101	2003	-71.5505063	+41.8758017	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_101.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	102	2003	-71.5496847	+41.8742811	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_102.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
	Vacant													
KC	104	2003	-71.5490340	+41.8790526	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_104.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	105	2003	-71.5549456	+41.8796661	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_105.jpg	LAKE/POND	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	106	2003	-71.5589741	+41.8764986	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_106.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE

**OUTFALL INVENTORY - 2015**

Name of Town: Smithfield														
General Information			Location in Decimal Degrees				Receiving Water Body Information				Outfall Information			
Inspector(s)	Outfall ID	Date	Longitude	Latitude	Method of Collection	Accuracy in meters	Horizontal Datum	Photo Name	Type	Name	Material	Shape	Diameter	Type
KC	107	2003	-71.5568035	+41.8828093	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_107.jpg	FRESHWATER_WETLAND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	108	2003	-71.5550347	+41.8851859	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_108.jpg	FRESHWATER_WETLAND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	109	2003	-71.5578237	+41.8892947	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_109.jpg	FRESHWATER_WETLAND	Sprague Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	110	2003	-71.5759421	+41.9069228	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_110.jpg	FRESHWATER_WETLAND	Nine Foot Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	111	2003	-71.5500520	+41.8874248	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_111.jpg	LAKE/POND	Sprague Lower Reservoir	PVC	CIRCULAR	6"-11"	SINGLE
KC	112	2003	-71.5511628	+41.8875157	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_112.jpg	LAKE/POND	Sprague Lower Reservoir	PVC	CIRCULAR	6"-11"	SINGLE
KC	113	2003	-71.5448527	+41.8941006	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_113.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
	Vacant													
MC, BC	115	6/23/2014	-71.5416037	+41.9000092	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_115.jpg	LAKE/POND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	116	2003	-71.5628973	+41.9047701	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_116.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	117	2003	-71.5607842	+41.9065262	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_117.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	118	2003	-71.5552060	+41.9073185	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_118.jpg	RIVER/STREAM	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	119	2003	-71.5432501	+41.8645044	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_119.jpg	LAKE/POND	Factory Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	120	2003	-71.5664615	+41.8612294	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_120.jpg	RIVER/STREAM	Slack Reservoir	HDPE	CIRCULAR	36"-59"	SINGLE
KC	121	2003	-71.5722767	+41.8746149	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_121.jpg	FRESHWATER_WETLAND	Stillwater River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	122	2010	-71.4985128	+41.8682643	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_122.jpg	RIVER/STREAM	Woonasquatucket River	CMP	CIRCULAR	12"-35"	SINGLE
KC	123	2010	-71.4991998	+41.8708094	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_123.jpg	RIVER/STREAM	Woonasquatucket River	PVC	CIRCULAR	6"-11"	SINGLE
KC	124	2010	-71.5688096	+41.8634849	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_124.jpg	RIVER/STREAM	Slack Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	125	2010	-71.5664749	+41.8612298	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_125.jpg	RIVER/STREAM	Slack Reservoir	CMP	CIRCULAR	36"-59"	SINGLE
KC	126	2010	-71.5664465	+41.8612290	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_126.jpg	RIVER/STREAM	Slack Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	127	2010	-71.5677988	+41.8628593	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_127.jpg	RIVER/STREAM	Slack Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	128	2010	-71.5659443	+41.8608639	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_128.jpg	RIVER/STREAM	Slack Reservoir	PVC	CIRCULAR	6"-11"	SINGLE
KC	129	2010	-71.4947132	+41.8691694	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_129.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	130	2010	-71.5059836	+41.8931438	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_130.jpg	RIVER/STREAM	Woonasquatucket River	PVC	CIRCULAR	6"-11"	SINGLE
KC	131	2010	-71.5583824	+41.9209992	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_131.jpg	RIVER/STREAM	Latham Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	132	2010	-71.5510808	+41.8828924	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_132.jpg	FRESHWATER_WETLAND	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	133	2010	-71.5519018	+41.8693684	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_133.jpg	LAKE/POND	Hopkins Pond	RCP	CIRCULAR	12"-35"	SINGLE
	Vacant													
	Vacant													
	Vacant													
KC	137	2010	-71.5680755	+41.8957807	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_137.jpg	FRESHWATER_WETLAND	Sprague Upper Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	138	2010	-71.5410494	+41.8700775	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_138.jpg	FRESHWATER_WETLAND	Reaper Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	Private	2011	-71.5614228	+41.8894404	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_139.jpg	FRESHWATER_WETLAND	Sprague Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	140	2011	-71.5599026	+41.8858897	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_140.jpg	FRESHWATER_WETLAND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	141	2011	-71.5614476	+41.8864473	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_141.jpg	FRESHWATER_WETLAND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	142	2010	-71.5049062	+41.8877823	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_142.jpg	RIVER/STREAM	Woonasquatucket River	DI	CIRCULAR	6"-11"	SINGLE
KC	143	2010	-71.5049558	+41.8879196	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_143.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	144	2010	-71.5050309	+41.8881317	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_144.jpg	RIVER/STREAM	Woonasquatucket River	PVC	CIRCULAR	6"-11"	SINGLE
KC	145	2010	-71.5053770	+41.8866959	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_145.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	36"-59"	SINGLE
KC	146	2010	-71.5051297	+41.8867965	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_146.jpg	RIVER/STREAM	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	147	2010	-71.5128940	+41.8907842	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_147.jpg	LAKE/POND	Georgiaville Pond	PVC	CIRCULAR	6"-11"	SINGLE
KC	148	2010	-71.5167694	+41.8977480	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_148.jpg	LAKE/POND	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	149	2010	-71.5208996	+41.8999674	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_149.jpg	RIVER/STREAM	Georgiaville Pond	PVC	CIRCULAR	12"-35"	SINGLE
	Vacant													
KC	151	2011	-71.5582588	+41.9080740	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_151.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	152	2010	-71.5100074	+41.8990637	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_152.jpg	RIVER/STREAM	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	153	2010	-71.5107645	+41.8968114	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_153.jpg	RIVER/STREAM	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	154	2010	-71.5100456	+41.8957255	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_154.jpg	LAKE/POND	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	155	2010	-71.5479667	+41.9231046	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_155.jpg	LAKE/POND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	156	2011	-71.5750817	+41.8938133	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_156.jpg	FRESHWATER_WETLAND	Sprague Upper Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	157	2011	-71.5700387	+41.8962141	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_157.jpg	FRESHWATER_WETLAND	Sprague Upper Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	158	2010	-71.5017240	+41.9206187	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_158.jpg	FRESHWATER_WETLAND	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	159	2010	-71.5585771	+41.9047850	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_159.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE

**OUTFALL INVENTORY - 2015**

Name of Town: Smithfield														
General Information			Location in Decimal Degrees				Receiving Water Body Information				Outfall Information			
Inspector(s)	Outfall ID	Date	Longitude	Latitude	Method of Collection	Accuracy in meters	Horizontal Datum	Photo Name	Type	Name	Material	Shape	Diameter	Type
KC	Private	2011	-71.5116590	+41.9002981	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_160.jpg	RIVER/STREAM	Harris Brook	HDPE	CIRCULAR	12"-35"	SINGLE
KC	Private	2011	-71.5103924	+41.9041007	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_161.jpg	FRESHWATER_WETLAND	Harris Brook	HDPE	CIRCULAR	12"-35"	SINGLE
KC	162	2010	-71.5018051	+41.8789747	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_162.jpg	RIVER/STREAM	Woonasquatucket River	PVC	CIRCULAR	12"-35"	SINGLE
KC	163	2011	-71.5098702	+41.8988505	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_163.jpg	RIVER/STREAM	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	164	2011	-71.4810648	+41.8809892	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_164.jpg	FRESHWATER_WETLAND	West River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	165	2010	-71.5712400	+41.8704930	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_165.jpg	FRESHWATER_WETLAND	Waterman Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	166	2010	-71.5015209	+41.8782825	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_166.jpg	RIVER/STREAM	Woonasquatucket River	DI	CIRCULAR	12"-35"	SINGLE
KC	167	2010	-71.5035865	+41.8730975	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_167.jpg	RIVER/STREAM	Hawkins Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	168	2010	-71.5270268	+41.9109046	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_168.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	169	2010	-71.5286258	+41.9099839	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_169.jpg	LAKE/POND	Stillwater Pond	CMP	CIRCULAR	6"-11"	SINGLE
KC	170	2010	-71.5244467	+41.9100831	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_170.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	171	2010	-71.5241507	+41.9106152	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_171.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	172	2010	-71.5230935	+41.9111541	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_172.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	173	2010	-71.5203933	+41.9114913	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_173.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	174	2010	-71.5193037	+41.9116254	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_174.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	175	2010	-71.5182578	+41.9117918	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_175.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	176	2010	-71.5248078	+41.9095013	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_176.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	177	2010	-71.5214436	+41.9113650	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_177.jpg	RIVER/STREAM	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	178	2010	-71.5171648	+41.9027671	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_178.jpg	RIVER/STREAM	Georgiaville Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	179	2010	-71.5487693	+41.8913474	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_179.jpg	RIVER/STREAM	Woonasquatucket Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE
KC	180	2010	-71.5472725	+41.9039166	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_180.jpg	LAKE/POND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	181	2010	-71.5396414	+41.8902540	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_181.jpg	LAKE/POND	Woonasquatucket Reservoir	PVC	CIRCULAR	6"-11"	SINGLE
KC	182	2010	-71.5410780	+41.8969184	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_182.jpg	LAKE/POND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	183	2010	-71.5451225	+41.8939736	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_183.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	184	2010	-71.5451946	+41.8877135	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_184.jpg	LAKE/POND	Sprague Lower Reservoir	PVC	CIRCULAR	6"-11"	SINGLE
KC	185	2010	-71.5481994	+41.8845912	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_185.jpg	LAKE/POND	Sprague Lower Reservoir	HDPE	CIRCULAR	12"-35"	DOUBLE
KC	186	2011	-71.5547227	+41.8747940	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_186.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	187	2010	-71.5368199	+41.8760414	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_187.jpg	FRESHWATER_WETLAND	Reaper Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	188	2010	-71.5352593	+41.8741745	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_188.jpg	FRESHWATER_WETLAND	Reaper Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	189	2010	-71.5385102	+41.8716602	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_189.jpg	FRESHWATER_WETLAND	Reaper Brook	HDPE	CIRCULAR	12"-35"	SINGLE
KC	190	2010	-71.5440263	+41.8816221	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_190.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	191	2010	-71.5491263	+41.8859042	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_191.jpg	LAKE/POND	Sprague Lower Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE
KC	192	2010	-71.5539713	+41.8883905	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_192.jpg	LAKE/POND	Sprague Lower Reservoir	PVC	CIRCULAR	12"-35"	SINGLE
	Vacant													
KC	194	10/15/2014	-71.5020669	+41.8730972	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_194.jpg	RIVER/STREAM	Hawkins Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	195	2010	-71.5517288	+41.8876366	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_195.jpg	LAKE/POND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	196	2010	-71.5509697	+41.8815884	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_196.jpg	FRESHWATER_WETLAND	Stillwater River	PVC	CIRCULAR	6"-11"	SINGLE
KC	197	2010	-71.5520588	+41.8794457	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_197.jpg	FRESHWATER_WETLAND	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	198	2010	-71.5523099	+41.8755791	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_198.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	199	2010	-71.5415027	+41.8976362	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_199.jpg	LAKE/POND	Woonasquatucket Reservoir	DI	CIRCULAR	6"-11"	SINGLE
KC	200	2010	-71.5518370	+41.8758215	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_200.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	201	2010	-71.5533430	+41.8750953	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_201.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE
KC	202	2010	-71.5554445	+41.8814290	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_202.jpg	FRESHWATER_WETLAND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	203	2010	-71.5552448	+41.8848039	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_203.jpg	FRESHWATER_WETLAND	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	204	2010	-71.5566863	+41.8858891	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_204.jpg	RIVER/STREAM	Sprague Lower Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	205	2010	-71.5035271	+41.9162065	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_205.jpg	RIVER/STREAM	Harris Brook	HDPE	CIRCULAR	12"-35"	SINGLE
KC	206	2010	-71.4785220	+41.8973976	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_206.jpg	FRESHWATER_WETLAND	West River	HDPE	CIRCULAR	12"-35"	SINGLE
KC	207	2010	-71.5051382	+41.9174964	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_207.jpg	RIVER/STREAM	Harris Brook	RCP	CIRCULAR	12"-35"	SINGLE
KC	208	2010	-71.5466039	+41.9233731	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_208.jpg	LAKE/POND	Woonasquatucket Reservoir	RCP	CIRCULAR	12"-35"	SINGLE
KC	209	2010	-71.5221244	+41.9194456	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_209.jpg	FRESHWATER_WETLAND	Stillwater Pond	RCP	CIRCULAR	12"-35"	SINGLE
KC	210	2011	-71.5423590	+41.9209631	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_210.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	211	2010	-71.5449769	+41.9274795	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_211.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE
KC	212	2010	-71.5395679	+41.8663298	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_212.jpg	FRESHWATER_WETLAND	Reaper Brook	RCP	CIRCULAR	12"-35"	SINGLE

**OUTFALL INVENTORY - 2015**

Name of Town: Smithfield															
General Information			Location in Decimal Degrees								Receiving Water Body Information			Outfall Information	
Inspector(s)	Outfall ID	Date	Longitude	Latitude	Method of Collection	Accuracy in meters	Horizontal Datum	Photo Name	Type	Name	Material	Shape	Diameter	Type	
KC	213	2010	-71.5408074	+41.8646292	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_213.jpg	RIVER/STREAM	Reaper Brook	RCP	CIRCULAR	12"-35"	SINGLE	
KC	214	2010	-71.5422253	+41.8653200	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_214.jpg	LAKE/POND	Factory Pond	RCP	CIRCULAR	12"-35"	SINGLE	
KC	215	2010	-71.5429034	+41.8658554	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_215.jpg	LAKE/POND	Factory Pond	RCP	CIRCULAR	12"-35"	SINGLE	
KC	216	2010	-71.5432520	+41.8662245	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_216.jpg	LAKE/POND	Factory Pond	RCP	CIRCULAR	12"-35"	SINGLE	
KC	217	2010	-71.5430405	+41.8655951	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_217.jpg	LAKE/POND	Factory Pond	RCP	CIRCULAR	12"-35"	SINGLE	
KC	218	2010	-71.5494839	+41.8662440	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_218.jpg	FRESHWATER_WETLAND	Hawkins Pond	PVC	CIRCULAR	6"-11"	SINGLE	
KC	219	2010	-71.5532655	+41.8680255	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_219.jpg	LAKE/POND	Slack Reservoir	RCP	CIRCULAR	12"-35"	SINGLE	
KC	220	2010	-71.5091382	+41.8747831	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_220.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE	
KC	221	2010	-71.5518981	+41.8672932	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_221.jpg	LAKE/POND	Slack Reservoir	RCP	CIRCULAR	12"-35"	SINGLE	
KC	222	2010	-71.5696398	+41.8656435	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_222.jpg	FRESHWATER_WETLAND	Slack Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE	
KC	223	2010	-71.5704124	+41.8674349	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_223.jpg	FRESHWATER_WETLAND	Slack Reservoir	RCP	CIRCULAR	12"-35"	SINGLE	
KC	224	2010	-71.5724322	+41.8726282	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_224.jpg	FRESHWATER_WETLAND	Waterman Reservoir	RCP	CIRCULAR	12"-35"	SINGLE	
KC	225	2010	-71.5722757	+41.8755447	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_225.jpg	FRESHWATER_WETLAND	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE	
KC	226	2010	-71.4950383	+41.9024579	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_226.jpg	RIVER/STREAM	Gould's Pond	CMP	CIRCULAR	12"-35"	SINGLE	
KC	227	2010	-71.4920554	+41.9015165	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_227.jpg	FRESHWATER_WETLAND	Gould's Pond	RCP	CIRCULAR	12"-35"	SINGLE	
KC	228	2010	-71.4920699	+41.9055214	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_228.jpg	RIVER/STREAM	Gould's Pond	RCP	CIRCULAR	12"-35"	SINGLE	
KC	229	2010	-71.4793894	+41.9010847	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_229.jpg	FRESHWATER_WETLAND	West River	RCP	CIRCULAR	12"-35"	SINGLE	
KC	230	2010	-71.5418168	+41.8638321	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_230.jpg	LAKE/POND	Factory Pond	RCP	CIRCULAR	12"-35"	SINGLE	
KC	231	2010	-71.5436304	+41.8647667	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_231.jpg	LAKE/POND	Factory Pond	RCP	CIRCULAR	12"-35"	SINGLE	
KC	232	2010	-71.4845718	+41.8753698	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_232.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE	
KC	233	2010	-71.4908272	+41.8807709	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_233.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE	
KC	234	2010	-71.4877730	+41.8774582	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_234.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE	
KC	235	2010	-71.5379337	+41.8646020	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_235.jpg	FRESHWATER_WETLAND	Reaper Brook	RCP	CIRCULAR	36"-59"	SINGLE	
KC	Private	2011	-71.5767378	+41.9336882	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_236.jpg	FRESHWATER_WETLAND	Woonasquatucket Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE	
KC	237	2011	-71.5421719	+41.9207929	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_237.jpg	FRESHWATER_WETLAND	Woonasquatucket River	RCP	CIRCULAR	12"-35"	SINGLE	
MC	238	4/1/2014	-71.4898463	+41.8829071	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_238.jpg	FRESHWATER_WETLAND	Woonasquatucket River	HDPE	CIRCULAR	12"-35"	SINGLE	
KC	239	2012	-71.5522746	+41.8999121	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_239.jpg	LAKE/POND	Woonasquatucket Reservoir	PVC	CIRCULAR	6"-11"	SINGLE	
KC	240	2012	-71.5712510	+41.9282366	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_240.jpg	LAKE/POND	Latham Brook	HDPE	CIRCULAR	12"-35"	SINGLE	
KC	241	2012	-71.5779560	+41.9110775	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_241.jpg	RIVER/STREAM	Nine Foot Brook	HDPE	CIRCULAR	12"-35"	SINGLE	
KC	242	2012	-71.5409577	+41.8849980	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_242.jpg	RIVER/STREAM	Stillwater River	HDPE	CIRCULAR	12"-35"	SINGLE	
KC	243	2012	-71.5398021	+41.8871796	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_243.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE	
KC	244	2012	-71.5267457	+41.8747845	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_244.jpg	FRESHWATER_WETLAND	Hawkins Brook	RCP	CIRCULAR	12"-35"	SINGLE	
KC	245	2012	-71.5227339	+41.8785432	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_245.jpg	FRESHWATER_WETLAND	Hawkins Brook	RCP	CIRCULAR	12"-35"	SINGLE	
KC	246	2012	-71.5701640	+41.8894893	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_246.jpg	FRESHWATER_WETLAND	Sprague Lower Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE	
KC	247	2012	-71.5731942	+41.8920098	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_247.jpg	FRESHWATER_WETLAND	Sprague Upper Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE	
KC	248	2012	-71.5729750	+41.9044491	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_248.jpg	FRESHWATER_WETLAND	Nine Foot Brook	HDPE	CIRCULAR	6"-11"	SINGLE	
KC	249	2012	-71.5732159	+41.9051124	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_249.jpg	FRESHWATER_WETLAND	Nine Foot Brook	RCP	CIRCULAR	12"-35"	SINGLE	
	Vacant														
KC	251	2012	-71.5686051	+41.8935053	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_251.jpg	FRESHWATER_WETLAND	Sprague Upper Reservoir	HDPE	CIRCULAR	12"-35"	SINGLE	
CS, MC	252	4/17/2013	-71.5460628	+41.8804705	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_252.jpg	RIVER/STREAM	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE	
KC	253	2012	-71.5100829	+41.8739180	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_253.jpg	FRESHWATER_WETLAND	Hawkins Brook	RCP	CIRCULAR	12"-35"	SINGLE	
CS, MC	254	7/30/2013	-71.4933516	+41.9290119	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_254.jpg	FRESHWATER_WETLAND	Crookfall Brook	HDPE	CIRCULAR	36"-59"	SINGLE	
CS, MC	255	7/30/2013	-71.5703405	+41.8791296	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_255.jpg	FRESHWATER_WETLAND	Stillwater River	RCP	CIRCULAR	12"-35"	SINGLE	
CS, MC	256	10/4/2013	-71.4716681	+41.8831210	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_256.jpg	RIVER/STREAM	West River	RCP	CIRCULAR	12"-35"	SINGLE	
CS, MC	257	10/4/2013	-71.4719102	+41.8845951	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_257.jpg	RIVER/STREAM	West River	RCP	CIRCULAR	12"-35"	SINGLE	
CS, MC	258	10/4/2013	-71.4777494	+41.9040962	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_258.jpg	FRESHWATER_WETLAND	West River	RCP	CIRCULAR	12"-35"	SINGLE	
CS, MC	259	11/13/2013	-71.5541514	+41.8676519	GPS_CODE_(PSEUDO_RANGE)_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	OUTFALL_259.jpg	LAKE/POND	Slack Reservoir	CONCRETE	CIRCULAR	6"-11"	SINGLE	

RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034

# APPENDIX E

## DRY-WEATHER SURVEYS (OUTFALL INSPECTION SUMMARY)

RIPDES PHASE II ANNUAL REPORT, YR 12  
TOWN OF SMITHFIELD, RI

**OUTFALL INSPECTION SUMMARY - 2015**

**HIGH WATER FLOW**

Name of Town: Smithfield																							
Outfall Inspection - Jan 1-April 30				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis						
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units		
001	4/8/2013	11:03 AM	CS	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
002	4/4/2014	9:03 AM	MC	MODERATE	1.0	0.2	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	6.7	C	6.92	323	< 2	MPN/100mL	
003	4/4/2014	9:21 AM	MC	MODERATE	0.5	< 0.1	1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NONE	NO	NO	6.1	C	6.70	206	< 2	MPN/100mL	
004	4/8/2013	11:18 AM	CS	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
005	4/4/2014	9:37 AM	MC	MODERATE	1.0	< 0.1	1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	6.8	C	6.77	183	4	MPN/100mL	
006	4/9/2013	11:05 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
007	4/8/2013	11:26 AM	CS	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
008	4/18/2013	1:02 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
009	4/17/2013	1:33 PM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			YES	NO							
010	4/4/2014	12:08 AM	MC	MODERATE	1.0	0.2	> 3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	ORANGE	CLEAR	NONE	YES	YES	7.3	C	6.11	745	< 2	MPN/100mL	
011	PRIVATE DRAINAGE SYSTEM																						
012	4/30/2014	11:37 AM	MC	TRICKLE	0.2	< 0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLOUDY	NONE	NO	NO	9.2	C	6.73	423	100	col/100mL	
013	4/23/2015	12:20 PM	MC/BC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			NO	NO							
014	4/18/2013	1:00 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
015	4/23/2015	12:00 PM	MC/BC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
016	4/9/2013	11:12 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
017	4/22/2014	10:10 AM	MC	MODERATE	1.0	0.1	> 3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	YES	NO	9.6	C	6.79	73	< 2	MPN/100mL	
018	4/19/2013	10:15 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
019	4/4/2014	12:23 PM	MC	MODERATE	1.0	0.2	> 3	RESIDENTIAL	NONE	NONE	NONE	ORANGE	CLEAR	NORMAL	NO	NO	8.0	C	6.63	459	< 2	MPN/100mL	
020	PRIVATE DRAINAGE SYSTEM																						
021	PRIVATE DRAINAGE SYSTEM																						
022	PRIVATE DRAINAGE SYSTEM																						
023	4/29/2015	12:18 PM	MC/BC	MODERATE	0.6	0.1	3	MUNICIPAL	NONE	NONE	NONE	NONE	CLEAR	NONE	YES	NO	9.9	C	6.40	202	< 10	col/100mL	
024	4/4/2014	12:35 PM	MC	MODERATE	0.7	0.1	> 3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	ORANGE	CLEAR	NONE	NO	NO	7.9	C	6.32	962	< 2	MPN/100mL	
025	4/19/2013	10:10 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
026	4/4/2014	12:52 PM	MC	TRICKLE	1.0	0.1	< 1	RESIDENTIAL	NONE	NONE	OIL SHEEN	NONE	CLEAR	NORMAL	YES	NO	6.4	C	6.08	745	< 2	MPN/100mL	
027	4/22/2014	11:37 AM	MC	TRICKLE	1.0	< 0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	NO	YES	10.6	C	6.74	391	< 2	MPN/100mL	
028	4/18/2013	9:52 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
029	4/22/2014	9:58 AM	MC	TRICKLE	0.3	< 0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	EXCESSIVE	NO	NO	11.7	C	5.73	160	< 2	MPN/100mL	
030	4/30/2014	1:18 PM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE				NO							
031	4/30/2014	11:07 AM	MC	TRICKLE	1.0	< 0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	ORANGE	CLOUDY	NORMAL	YES	NO	9.3	C	5.90	443	< 10	col/100mL	
032	4/19/2013	10:27 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
033	4/15/2014	12:30 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
034	4/17/2013	12:08 PM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			YES	NO							
035	4/17/2013	12:03 PM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			YES	YES							
036	4/10/2013	9:30 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
037	4/10/2013	9:35 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	LITTER	NONE			NO	NO							
038	N/A																						
039	4/10/2013	11:20 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
040	4/17/2013	12:18 PM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			NO	NO							
041	4/10/2013	11:25 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	YES							
042	4/14/2014	12:04 PM	CS/MC	TRICKLE	1.0	< 0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	ORANGE	CLEAR	NONE	YES	NO	8.6	C	5.86	292	< 2	MPN/100mL	
043	4/14/2014	12:10 PM	CS/MC	TRICKLE	2.0	< 0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	NO	NO	13.1	C	6.09	276	2	MPN/100mL	
044	4/30/2014	12:23 PM	MC	DRIP			< 1	RESIDENTIAL	SEWAGE	NONE	NONE	ORANGE	CLOUDY	EXCESSIVE	NO	NO	8.0	C	6.66	690	520	col/100mL	
045	4/14/2014	11:56 AM	CS/MC	SUBSTANTIAL	1.3	1.0	> 3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	ORANGE	CLEAR	NORMAL	NO	NO	13.7	C	6.53	302	7	MPN/100mL	
046	4/10/2013	12:18 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
047	4/14/2014	11:50 AM	CS/MC	TRICKLE	0.2	< 0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	ORANGE	CLEAR	EXCESSIVE	YES	NO	11.3	C	6.59	351	1600	MPN/100mL
048	4/10/2013	12:00 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
049	4/10/2013	12:05 PM	CS/MC	MODERATE	2.0	1.0	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	ORANGE	CLEAR	NONE	YES	NO	11.0	C	6.21	656	< 2	MPN/100mL	

**OUTFALL INSPECTION SUMMARY - 2015**

**HIGH WATER FLOW**

Name of Town: Smithfield																						
Outfall Inspection - Jan 1-April 30				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis					
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units	
050	4/14/2014	10:35 AM	CS/MC	TRICKLE	1.0	0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NONE	YES	NO	9.3	C	6.24	375	< 2	MPN/100mL
051	PRIVATE DRAINAGE SYSTEM																					
052	4/30/2014	12:12 PM	MC	TRICKLE	0.4	< 0.1	2	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	9.6	C	6.56	350	10	col/100mL
053	4/19/2013	10:45 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
054	4/15/2013	10:38 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
055	4/4/2014	10:38 AM	MC	TRICKLE	0.5	0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NONE	NO	NO	6.7	C	6.40	310	< 2	MPN/100mL
056	4/29/2015	11:01 AM	MC/BC	TRICKLE	0.5	< 0.1	< 1	MUNICIPAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	8.3	C	6.56	270	< 10	col/100mL
057	4/15/2013	11:17 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
058	4/18/2013	12:44 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
059	4/15/2014	11:10 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
060	4/14/2014	12:58 PM	CS/MC	SUBSTANTIAL	1.0	0.3	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	15.4	C	6.88	503	< 2	MPN/100mL
061	4/7/2014	10:54 AM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			YES	NO						
062	4/27/2015	12:20 PM	MC/BC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			NO	NO						
063	4/21/2014	1:22 PM	MC	MODERATE	1.0	0.2	> 3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	NO	NO	13.1	C	6.36	273	4	MPN/100mL
064	4/15/2014	12:04 PM	CS/MC	TRICKLE	0.2	< 0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NONE	YES	NO	9.5	C	6.54	391	110	MPN/100mL
065	4/12/2013	11:52 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
066	4/12/2013	11:48 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
067	4/12/2013	11:46 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
068	4/12/2013	11:28 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
069	4/15/2014	11:52 AM	CS/MC	MODERATE	1.5	0.3	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	9.5	C	6.50	364	2	MPN/100mL
070	4/12/2013	11:20 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
071	4/18/2013	12:18 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
072	4/12/2013	10:25 AM	CS/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE			NO	NO						
073	4/14/2014	12:42 PM	CS/MC	TRICKLE	0.3	< 0.1	< 1	COMMERCIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	10.1	C	6.80	992	< 2	MPN/100mL
074	4/14/2014	12:35 PM	CS/MC	TRICKLE	0.5	< 0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	13.3	C	6.45	1148	< 2	MPN/100mL
075	4/12/2013	10:13 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
076	4/29/2015	11:11 AM	MC/BC	TRICKLE	0.4	< 0.1	2	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	11.8	C	6.50	575	< 10	col/100mL
077	4/4/2014	11:57 AM	MC	MODERATE	1.5	0.2	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	YES	7.5	C	6.14	523	< 2	MPN/100mL
078	4/15/2013	10:50 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
079	PRIVATE DRAINAGE SYSTEM																					
080	PRIVATE DRAINAGE SYSTEM																					
081	4/12/2013	10:27 AM	CS/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	YES						
082	4/16/2013	11:25 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
083	4/15/2013	11:44 AM	CS/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	NO						
084	4/15/2013	11:47 AM	CS/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	YES						
085	4/15/2014	12:24 PM	CS/MC	MODERATE	0.5	0.2	> 3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	NO	NO	13.1	C	6.43	115	80	MPN/100mL
086	4/15/2014	11:52 AM	CS/MC	MODERATE	1.5	0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	ORANGE	CLEAR	NORMAL	YES	NO	10.4	C	6.66	319	2	MPN/100mL
087	4/15/2014	11:35 AM	CS/MC	NONE				RESIDENTIAL	NONE	RED	NONE	NONE			NO	NO						
088	4/15/2013	12:15 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
089	4/15/2013	12:10 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	YES						
090	N/A																					
091	4/15/2014	11:28 AM	CS/MC	MODERATE	1.3	0.3	2	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	YES	NO	10.7	C	6.25	368	2	MPN/100mL
092	4/24/2013	11:48 AM	CS	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
093	4/15/2013	12:58 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
094	4/16/2013	10:37 AM	CS/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE			NO	NO						
095	4/21/2014	1:47 PM	MC	TRICKLE	0.1	< 0.1	1	COMMERCIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	9.5	C	6.15	463	< 2	MPN/100mL
096	4/16/2013	10:44 AM	CS/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE			NO	YES						
097	4/21/2014	12:33 PM	MC	MODERATE	0.7	0.3	> 3	RESIDENTIAL	NONE	NONE	NONE	ORANGE	CLEAR	NORMAL	NO	NO	10.7	C	6.13	428	< 2	MPN/100mL
098	4/17/2013	11:05 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						

**OUTFALL INSPECTION SUMMARY - 2015**

**HIGH WATER FLOW**

Name of Town: Smithfield																						
Outfall Inspection - Jan 1-April 30				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis					
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units	
099	4/17/2013	11:03 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
100	4/21/2014	12:55 PM	MC	MODERATE	1.0	0.2	3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	ORANGE	CLEAR	NORMAL	NO	NO	11.1	C	6.12	600	< 2	MPN/100mL
101	4/17/2013	11:42 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
102	4/25/2013	10:05 AM	CS	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
103	N/A																					
104	4/17/2013	11:57 AM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			YES	NO						
105	4/22/2014	12:28 PM	MC	SUBMERGED				RESIDENTIAL														
106	4/17/2013	10:50 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
107	4/22/2014	12:17 PM	MC	MODERATE	1.0	0.2	3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	10.5	C	6.47	382	< 2	MPN/100mL
108	4/18/2013	11:27 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
109	4/22/2014	11:56 AM	MC	TRICKLE	0.3	< 0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	YES	11.9	C	6.64	479	8	MPN/100mL
110	4/22/2014	10:55 AM	MC	TRICKLE	1.0	0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NONE	NO	NO	9.0	C	6.19	127	< 2	MPN/100mL
111	4/17/2013	1:00 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
112	4/17/2013	12:58 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
113	4/18/2013	10:52 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
114	N/A																					
115	4/23/2015	11:23 AM	MC/BC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			YES	NO						
116	4/21/2014	10:40: AM	MC	TRICKLE	1.0	< 0.1	1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	9.7	C	6.35	374	< 2	MPN/100mL
117	4/18/2013	1:06 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	YES						
118	4/21/2014	11:30 AM	MC	MODERATE	1.0	0.2	2	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	YES	NO	10.1	C	6.62	214	2	MPN/100mL
119	4/16/2013	11:22 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	YES						
120	4/30/2014	10:25 AM	MC	TRICKLE	3.0	1.5	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	YES	NO	8.2	C	6.22	395	90	col/100mL
121	4/17/2013	10:20 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO						
122	4/19/2013	11:05 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
123	4/19/2013	11:08 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
124	4/30/2014	11:00 AM	MC	MODERATE	1.5	0.3	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	8.4	C	6.14	364	< 10	col/100mL
125	4/30/2014	10:15 AM	MC	TRICKLE	2.5	1.8	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	YES	NO	9.6	C	6.05	647	20	col/100mL
126	4/30/2014	10:30 AM	MC	TRICKLE	0.5	0.3	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	YES	NO	9.1	C	5.90	286	10	col/100mL
127	4/30/2014	10:53 AM	MC	TRICKLE	1.0	0.2	1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	9.9	C	5.74	674	< 10	col/100mL
128	4/16/2013	12:44 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
129	4/4/2014	1:07 PM	MC	MODERATE	1.5	0.7	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	8.3	C	6.63	152	< 2	MPN/100mL
130	4/4/2014	10:15 AM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
131	4/15/2013	12:55 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
132	4/17/2013	12:12 PM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			YES	NO						
133	4/30/2014	11:50 AM	MC	MODERATE	0.5	0.1	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	EXCESSIVE	NO	YES	11.1	C	5.98	355	< 10	col/100mL
134	N/A																					
135	N/A																					
136	N/A																					
137	4/22/2014	11:27 AM	MC	MODERATE	1.5	0.2	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	EXCESSIVE	NO	NO	10.2	C	6.28	156	< 2	MPN/100mL
138	4/16/2013	11:02 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
139	PRIVATE DRAINAGE SYSTEM																					
140	4/18/2013	11:45 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
141	4/22/2014	11:48 AM	MC	MODERATE	1.0	0.1	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	11.2	C	6.71	357	< 2	MPN/100mL
142	Not Active/Not Found							RESIDENTIAL														
143	4/4/2014	10:00 AM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
144	4/4/2014	10:02 AM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
145	4/4/2014	9:53AM	MC	MODERATE	3.0	0.6	3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	12.1	C	6.11	524	< 2	MPN/100mL
146	4/9/2013	10:50 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
147	4/19/2013	10:21 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						

**OUTFALL INSPECTION SUMMARY - 2015**

**HIGH WATER FLOW**

Name of Town: Smithfield																						
Outfall Inspection - Jan 1-April 30				Illicit Discharge Flow Measurement				Visual Observation										Field Analysis				
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units	
148	4/19/2013	9:47 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
149	4/19/2013	9:36 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
150	N/A																					
151	4/21/2014	11:05 AM	MC	MODERATE	1.0	< 0.1	3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	EXCESSIVE	NO	NO	9.7	C	6.72	382	< 2	MPN/100mL
152	4/9/2013	11:47 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
153	4/15/2013	10:32 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
154	4/15/2013	10:27 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
155	Not active			NONE				RESIDENTIAL														
156	4/18/2013	12:54 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
157	4/18/2013	12:56 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
158	4/15/2013	11:21 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
159	4/21/2014	10:25 AM	MC	MODERATE	1.5	< 0.1	2	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	11.5	C	6.80	390	< 2	MPN/100mL
160	PRIVATE DRAINAGE SYSTEM																					
161	PRIVATE DRAINAGE SYSTEM																					
162	4/4/2014	9:15 AM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
163	4/4/2014	10:57 AM	MC	MODERATE	0.5	0.1	3	RESIDENTIAL	NONE	NONE	NONE	ORANGE	CLEAR	NONE	NO	NO	7.0	C	6.88	737	8	MPN/100mL
164	4/10/2013	9:42 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
165	4/30/2014	11:20 AM	MC	TRICKLE	1.0	0.2	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	8.4	C	6.00	443	20	col/100mL
166	4/10/2013	10:07 AM	CS/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	YES						
167	4/19/2013	10:52 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
168	4/12/2013	10:10 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	YES						
169	4/12/2013	10:20 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
170	4/4/2014	11:40 AM	MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			YES	NO						
171	4/4/2014	11:37 AM	MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	NO						
172	4/4/2014	11:32 AM	MC	MODERATE	1.5	< 0.1	3	INDUSTRIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	7.5	C	6.45	1015	< 2	MPN/100mL
173	4/4/2014	11:23 AM	MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	NO						
172	4/4/2014	11:18 AM	MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			YES	NO						
175	4/4/2014	11:15 AM	MC	TRICKLE	1.0	0.1	< 1	INDUSTRIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NONE	YES	NO	7.3	C	6.28	1792	< 2	MPN/100mL
176	4/4/2014	10:05 AM	CS/MC	MODERATE	1.0	0.2	> 3	INDUSTRIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	9.2	C	6.27	399	50	MPN/100mL
177	4/12/2013	9:43 AM	CS/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	NO						
178	4/4/2014	11:08 AM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
179	4/18/2013	11:00 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
180	4/15/2013	1:05 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
181	4/18/2013	10:27 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
182	4/18/2013	10:42 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
183	4/18/2013	10:55 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	YES						
184	4/22/2014	10:30 AM	MC	SUBMERGED				RESIDENTIAL														
185	4/17/2013	1:12 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
186	4/21/2014	12:47 PM	MC	TRICKLE	2.0	< 0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	10.2	C	6.82	889	< 2	MPN/100mL
187	4/22/2014	12:56 PM	MC	MODERATE	1.0	0.2	3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	EXCESSIVE	NO	NO	12.2	C	6.54	501	240	MPN/100mL
188	4/18/2013	10:05 AM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			YES	NO						
189	4/22/2014	1:07 PM	MC	TRICKLE	0.7	< 0.1	3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	11.6	C	6.53	419	2	MPN/100mL
190	4/17/2013	1:20 PM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			NO	NO						
191	4/17/2013	1:07 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
192	4/17/2013	12:37 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
193	N/A																					
194	4/23/2015	12:13 PM	MC/BC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
195	4/30/2014	10:00 AM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
196	4/17/2013	12:33 PM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			NO	NO						

**OUTFALL INSPECTION SUMMARY - 2015**

**HIGH WATER FLOW**

Name of Town: Smithfield																							
Outfall Inspection - Jan 1-April 30				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis						
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units		
197	4/22/2014	12:35 PM	MC	MODERATE	2.0	0.3	< 1	MUNICIPAL	NONE	NONE	NONE	NONE	CLEAR	NONE	YES	NO	12.0	C	5.91	292	< 2	MPN/100mL	
198	4/21/2014	1:10 PM	MC	TRICKLE	0.3	0.1	3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	10.7	C	5.90	425	< 2	MPN/100mL	
199	Not Active/Not Found							RESIDENTIAL															
200	4/17/2013	11:12 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
201	4/17/2013	11:10 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
202	4/18/2013	11:16 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
203	4/18/2013	11:32 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	YES							
204	4/22/2014	12:05 PM	MC	MODERATE	0.8	0.1	1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	NO	NO	13.6	C	6.64	187	2	MPN/100mL	
205	4/15/2013	11:08 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
206	4/10/2013	1:00 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	LITTER	NONE			YES	NO							
207	4/15/2013	11:12 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
208	4/12/2013	11:16 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	YES							
209	4/12/2013	10:47 AM	CS/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE			NO	NO							
210	4/12/2013	11:12 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
211	4/12/2013	11:02 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
212	4/16/2013	10:55 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
213	4/16/2013	11:28 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	YES							
214	4/16/2013	11:34 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	YES							
215	4/16/2013	11:35 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
216	4/16/2013	11:38 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
217	4/16/2013	11:43 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
218	4/16/2013	11:55 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	YES							
219	4/16/2013	12:05 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
220	4/18/2013	9:34 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
221	4/16/2013	12:03 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
222	4/17/2013	9:38 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
223	4/17/2013	9:45 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	YES							
224	4/30/2014	1:30 PM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
225	4/17/2013	10:26 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	YES							
226	4/14/2014	11:28 AM	CS/MC	SUBSTANTIAL	1.5	1.0	> 3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	EXCESSIVE	NO	NO	13.4	C	6.16	230	< 2	MPN/100mL	
227	4/14/2014	12:16 PM	CS/MC	TRICKLE	1.5	< 0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	NO	NO	8.8	C	5.76	583	50	MPN/100mL	
228	4/14/2014	10:47 PM	CS/MC	TRICKLE	1.0	< 0.1	< 1	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	NO	NO	10.0	C	6.16	322	< 2	MPN/100mL	
229	4/10/2013	12:50 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
230	4/16/2013	11:10 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
231	4/16/2013	11:15 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
232	4/14/2014	10:00 AM	CS/MC	TRICKLE	1.0	0.2	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	11.5	C	6.25	291	< 2	MPN/100mL	
233	4/9/2013	1:25 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
234	4/9/2013	1:35 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
235	4/21/2014	1:35 PM	MC	MODERATE	1.5	0.2	> 3	COMMERCIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	EXCESSIVE	NO	NO	11.7	C	6.62	559	13	MPN/100mL	
236	PRIVATE DRAINAGE SYSTEM																						
237	4/12/2013	11:07 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO							
238	4/7/2014	11:50 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
239	4/22/2014	1:23 PM	MC	TRICKLE	0.3	0.2	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	12.2	C	6.40	1844	2	MPN/100mL	
240	4/24/2013	11:44 AM	CS	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
241	4/22/2014	11:10 AM	MC	TRICKLE	1.0	0.2	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	10.0	C	6.53	51	< 2	MPN/100mL	
242	4/17/2013	1:30 PM	CS/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE			NO	NO							
243	4/23/2015	11:29 AM	MC/BC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	NO							
244	4/25/2013	10:47 AM	CS	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							
245	4/18/2013	9:42 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO							

**OUTFALL INSPECTION SUMMARY - 2015  
HIGH WATER FLOW**

Name of Town: Smithfield																						
Outfall Inspection - Jan 1-April 30				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis					
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units	
246	4/18/2013	11:56 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
247	4/22/2014	1:50 PM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
248	4/18/2013	12:35 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
249	4/21/2014	11:50 AM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
250	N/A																					
251	4/18/2013	12:05 PM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			YES	NO						
252	4/17/2013	1:23 PM	CS/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE			NO	NO						
253	4/18/2013	9:26 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
254	4/7/2014	11:07 AM	CS/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE			NO	NO						
255	4/30/2014	1:05 PM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
256	4/7/2014	11:38 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
257	4/7/2014	11:33 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						
258	4/14/2014	9:45 AM	CS/MC	SUBSTANTIAL	1.5	0.5	3	RESIDENTIAL	NONE	NONE	SOAP_SUDS	NONE	CLEAR	NORMAL	NO	NO	10.2	C	6.21	180	< 2	MPN/100mL
259	4/7/2014	10:20 AM	CS/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE			NO	NO						

**OUTFALL INSPECTION SUMMARY - 2015**

**LOW WATER FLOW**

Name of Town: Smithfield																					
Outfall Inspection - July 1-Oct 31				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis				
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units
001	9/25/2014	8:55 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
002	9/25/2014	8:55 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
003	9/25/2014	9:07 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
004	9/25/2014	9:10 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
005	9/25/2014	9:13 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
006	9/25/2014	9:24 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
007	9/25/2014	9:26 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
008	9/23/2014	10:15 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
009	9/24/2014	9:10 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
010	9/25/2014	12:27 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
011	PRIVATE DRAINAGE SYSTEM																				
012	10/6/2014	11:25 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
013	9/28/2015	12:38 PM	MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
014	9/23/2014	10:22 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
015	9/25/2015	3:17 PM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
016	9/30/2014	9:35 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
017	9/30/2014	10:28 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
018	9/30/2014	12:00 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
019	9/25/2014	12:45 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
020	PRIVATE DRAINAGE SYSTEM																				
021	PRIVATE DRAINAGE SYSTEM																				
022	PRIVATE DRAINAGE SYSTEM																				
023	9/25/2015	3:11 PM	MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
024	9/25/2014	12:55 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	ORANGE		NONE	NO	NO					
025	9/30/2014	11:55 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
026	9/29/2014	12:46 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NORMAL	YES	NO					
027	9/18/2014	12:50 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES					
028	9/30/2014	10:20 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
029	9/30/2014	10:25 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES					
030	10/6/2014	12:45 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
031	10/6/2014	11:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
032	9/30/2014	12:14 PM	BC/MC	NONE				RESIDENTIAL	NONE	GREY	NONE	WHITE		NONE	NO	NO					
033	9/23/2014	10:50 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
034	9/18/2014	10:40 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
035	9/18/2014	10:50 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
036	9/25/2014	11:45 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
037	9/25/2014	11:37 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
038	N/A																				
039	9/29/2014	11:22 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
040	9/18/2014	10:34 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
041	9/29/2014	11:18 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
042	9/29/2014	11:03 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
043	9/29/2014	11:08 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES					
044	10/15/2014	11:45 AM	BC/MC	DRIP	-	-	< 1	RESIDENTIAL	SEWAGE	NONE	NONE	ORANGE	CLEAR	NONE	NO	NO	16.1	C	6.66	386	<10 col/100mL
045	10/15/2014	11:40 AM	BC/MC	MODERATE	0.5	0.1	> 3	RESIDENTIAL	SEWAGE	NONE	SOAP_SUDS	ORANGE	CLEAR	NORMAL	NO	NO	16.4	C	6.73	362	50 col/100mL
046	9/29/2014	10:42 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
047	10/15/2014	11:30 AM	BC/MC	TRICKLE	0.3	0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	WHITE	CLEAR	NORMAL	NO	NO	14.7	C	6.86	286	30 col/100mL
048	9/29/2014	10:14 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
049	10/15/2014	11:50 AM	BC/MC	TRICKLE	1.5	0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLOUDY	NORMAL	NO	NO	16.0	C	6.71	533	20 col/100mL

**OUTFALL INSPECTION SUMMARY - 2015**

**LOW WATER FLOW**

Name of Town: Smithfield																						
Outfall Inspection - July 1-Oct 31				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis					
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units	
050	9/29/2014	10:00 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
051	PRIVATE DRAINAGE SYSTEM																					
052	9/25/2014	12:15 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	BLACK		NORMAL	NO	NO						
053	9/25/2014	12:20 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
054	9/25/2014	9:54 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NORMAL	NO	NO						
055	9/25/2014	9:58 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NORMAL	NO	NO						
056	9/28/2015	11:45 AM	MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
057	10/1/2014	11:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
058	9/22/2014	11:06 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
059	10/6/2014	9:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
060	10/15/2014	1:40 PM	BC/MC	TRICKLE	0.1	0.02	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	15.5	C	6.50	272	60	col/100mL
061	9/29/2014	12:30 PM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
062	9/28/2015	11:46 AM	MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
063	9/16/2014	11:35 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES						
064	9/24/2014	12:23 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	YES						
065	9/24/2014	12:24 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
066	9/24/2014	12:25 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
067	9/24/2014	11:33 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
068	9/24/2014	11:20 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
069	9/24/2014	11:25 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
070	9/24/2014	11:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
071	9/22/2014	11:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
072	10/6/2014	10:50 AM	BC/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
073	10/6/2014	10:55 AM	BC/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
074	10/15/2014	10:42 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
075	10/6/2014	10:26 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
076	9/28/2015	11:45 AM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
077	10/6/2014	10:11 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
078	10/6/2014	10:20 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES						
079	PRIVATE DRAINAGE SYSTEM																					
080	PRIVATE DRAINAGE SYSTEM																					
081	10/6/2014	10:30 AM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
082	9/16/2014	10:35 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
083	9/24/2014	11:00 AM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
084	9/24/2014	11:05 AM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	YES	YES						
085	9/23/2014	11:04 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
086	9/23/2014	12:05 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
087	9/23/2014	12:10 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
088	9/23/2014	12:15 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
089	9/23/2014	12:20 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
090	10/23/2015	10:27 AM	MC	MODERATE				RESIDENTIAL	NONE	NONE	NONE	ORANGE	CLEAR	EXCESSIVE	YES	NO	11.8	C	6.40	1517	20	col/100mL
091	9/23/2014	12:00 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
092	9/23/2014	11:23 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
093	9/23/2014	11:38 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
094	9/16/2014	12:00 PM	BC/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
095	9/16/2014	11:56 AM	BC/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
096	9/16/2014	11:52 AM	BC/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
097	9/18/2014	11:50 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
098	9/18/2014	11:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						

**OUTFALL INSPECTION SUMMARY - 2015**

**LOW WATER FLOW**

Name of Town: Smithfield																						
Outfall Inspection - July 1-Oct 31				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis					
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units	
099	9/18/2014	11:38 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
100	9/18/2014	11:18 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
101	9/18/2014	11:03 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
102	9/18/2014	11:00 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
103	N/A																					
104	9/18/2014	10:54 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
105	9/18/2014	12:00 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
106	9/22/2014	10:00 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
107	10/15/2014	12:35 PM	BC/MC	TRICKLE	0.2	0.02	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	YES	NO	17.5	C	6.25	341	<10	col/100mL
108	9/18/2014	12:15 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
109	9/18/2014	12:24 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
110	9/22/2014	11:20 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
111	9/18/2014	9:55 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
112	9/18/2014	10:00 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
113	9/24/2014	10:22 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
114	N/A																					
115	9/24/2014	10:33 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
116	9/23/2014	10:05 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
117	9/23/2014	9:55 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
118	9/23/2014	10:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
119	9/16/2014	10:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES						
120	10/6/2014	11:50 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
121	10/6/2014	12:30 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
122	9/30/2014	9:42 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
123	10/15/2014	1:30 PM	BC/MC	NONE				RESIDENTIAL	LAUNDRY	NONE	NONE	NONE		NONE	NO	NO						
124	10/15/2014	12:55 PM	BC/MC	TRICKLE	0.2	0.02	1	RESIDENTIAL	NONE	NONE	OIL_SHEEN	NONE	CLOUDY	NONE	NO	YES	15.0	C	5.69	772	30	col/100mL
125	10/6/2014	11:51 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
126	10/6/2014	11:49 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
127	10/6/2014	11:35 AM	BC/MC	TRICKLE	0.8	0.1	< 1	RESIDENTIAL	NONE	NONE	OIL_SHEEN	NONE	CLEAR	NONE	NO	NO	15.9	C	5.74	401	<10	col/100mL
128	10/7/2014	12:10 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
129	9/30/2014	9:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
130	9/25/2014	9:37 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES						
131	9/23/2014	11:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
132	9/18/2014	10:27 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
133	10/15/2014	1:18 PM	BC/MC	MODERATE	0.5	0.1	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	16.6	C	6.08	247	<10	col/100mL
134	N/A																					
135	N/A																					
136	N/A																					
137	9/22/2014	10:34 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
138	9/16/2014	12:15 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
139	PRIVATE DRAINAGE SYSTEM																					
140	10/7/2014	10:50 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
141	10/7/2014	10:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
142	Not Active/Not found							RESIDENTIAL														
143	9/25/2014	9:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO						
144	9/25/2014	9:33 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
145	10/15/2014	10:10 AM	BC/MC	MODERATE	1.5	0.3	> 3	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	NO	18.3	C	6.24	405	<10	col/100mL
146	9/25/2014	9:20 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						
147	9/30/2014	12:05 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO						

**OUTFALL INSPECTION SUMMARY - 2015**

**LOW WATER FLOW**

Name of Town: Smithfield																					
Outfall Inspection - July 1-Oct 31				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis				
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units
148	9/25/2014	12:48 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES					
149	9/25/2014	12:40 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
150	N/A																				
151	9/23/2014	9:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
152	9/25/2014	10:05 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
153	9/25/2014	9:52 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
154	9/25/2014	9:45 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
155	Not Active			NONE				RESIDENTIAL													
156	9/22/2014	10:45 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
157	9/22/2014	10:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
158	10/1/2014	11:35 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
159	9/22/2014	1:00 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
160	PRIVATE DRAINAGE SYSTEM																				
161	PRIVATE DRAINAGE SYSTEM																				
162	9/25/2014	9:04 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NORMAL	NO	NO					
163	9/25/2014	10:00 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
164	9/25/2014	12:00 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
165	10/6/2014	12:20 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
166	9/25/2014	9:00 AM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
167	9/30/2014	10:00 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
168	10/6/2014	10:23 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
169	10/6/2014	10:35 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
170	10/6/2014	10:07 AM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
171	10/6/2014	10:05 AM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
172	10/15/2014	12:05 PM	BC/MC	TRICKLE	1.5	0.02	> 1	INDUSTRIAL	NONE	NONE	NONE	ORANGE	CLEAR	NORMAL	NO	NO	17.7	C	6.89	822	110 col/100mL
173	10/15/2014	12:00 PM	BC/MC	TRICKLE	0.1	0.04	> 1	INDUSTRIAL	NONE	NONE	NONE	NONE	CLEAR	NORMAL	NO	NO	17.1	C	6.50	1426	20 col/100mL
174	10/15/2014	11:50 AM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NORMAL	NO	NO					
175	10/15/2014	11:49 AM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
176	10/6/2014	12:17 PM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NORMAL	YES	NO					
177	10/6/2014	12:03 PM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NORMAL	NO	NO					
178	9/25/2014	12:24 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
179	10/7/2014	11:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
180	9/23/2014	10:55 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
181	9/24/2014	10:18 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	YES					
182	9/24/2014	10:28 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
183	9/24/2014	10:25 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	YES					
184	9/24/2014	10:00 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
185	9/18/2014	9:45 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	YES					
186	9/18/2014	11:25 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
187	10/15/2014	12:25 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NORMAL	NO	NO					
188	10/3/2014	10:45 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
189	9/16/2014	12:25 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
190	9/24/2014	9:40 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
191	9/18/2014	10:18 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	YES					
192	9/18/2014	10:12 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
193	N/A																				
194	10/15/2014	9:50 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
195	9/18/2014	10:05 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
196	9/18/2014	10:45 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO					

**OUTFALL INSPECTION SUMMARY - 2015**

**LOW WATER FLOW**

Name of Town: Smithfield																					
Outfall Inspection - July 1-Oct 31				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis				
Outfall ID	Date of Inspection	Time	Inspector(s)	Flow Type	Width of Water Surface (feet)	Approx Depth of Water (feet)	Approx Flow Velocity (ft/sec)	Immediate Surrounding Land Use	Odor	Color	Floatables	Staining	Clarity	Vegetation/Algae Growth	Sedimentation	Scouring	Water Temp. Units	pH	Conductivity	Bacteria	Units
197	10/3/2014	10:35 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
198	9/18/2014	11:15 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
199	Not Active/Not found			NONE				RESIDENTIAL													
200	9/18/2014	11:45 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
201	9/18/2014	11:42 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
202	9/18/2014	12:04 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
203	9/18/2014	12:18 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
204	9/18/2014	12:20 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
205	10/1/2014	11:48 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
206	9/29/2014	9:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
207	10/6/2014	9:17 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
208	9/24/2014	11:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	YES					
209	9/29/2014	12:37 PM	BC/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
210	9/28/2015	12:15 PM	MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
211	9/24/2014	12:00 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
212	9/16/2014	12:12 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
213	9/16/2014	10:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
214	9/16/2014	11:10 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	YES					
215	9/16/2014	11:03 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
216	9/16/2014	11:00 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
217	9/16/2014	11:05 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
218	9/30/2014	11:01 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
219	9/30/2014	10:50 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
220	9/30/2014	10:03 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
221	9/30/2014	10:56 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
222	10/6/2014	12:00 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
223	10/6/2014	12:10 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
224	10/6/2014	12:20 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
225	10/6/2014	12:48 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
226	10/15/2014	11:55 AM	BC/MC	TRICKLE	1.0	0.1	< 1	RESIDENTIAL	NONE	NONE	NONE	NONE	CLEAR	NONE	NO	YES	16.3	C	6.90	232	<10 col/100mL
227	9/29/2014	11:13 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
228	9/29/2014	10:03 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
229	9/29/2014	9:55 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
230	9/16/2014	11:20 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
231	9/16/2014	10:45 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
232	9/25/2014	12:07 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
233	9/25/2014	11:53 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
234	9/25/2014	11:56 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
235	9/16/2014	11:45 AM	BC/MC	NONE				COMMERCIAL	NONE	NONE	NONE	GREEN		NONE	NO	NO					
236	PRIVATE DRAINAGE SYSTEM																				
237	9/24/2014	10:55 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
238	9/25/2014	11:50 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
239	9/23/2014	10:30 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
240	9/23/2014	11:15 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
241	9/22/2014	11:12 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
242	9/24/2014	9:15 AM	BC/MC	NONE				COMMERCIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
243	10/10/2014	12:45 PM	MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
244	9/30/2014	10:40 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
245	9/30/2014	10:10 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					

**OUTFALL INSPECTION SUMMARY - 2015**

**LOW WATER FLOW**

Name of Town: Smithfield																					
Outfall Inspection - July 1-Oct 31				Illicit Discharge Flow Measurement				Visual Observation									Field Analysis				
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246	9/22/2014	10:15 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
247	9/22/2014	10:56 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
248	9/22/2014	11:35 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
249	9/22/2014	11:28 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
250	N/A																				
251	10/7/2014	11:36 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
252	9/24/2014	9:55 AM	BC/MC	NONE				MUNICIPAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
253	9/30/2014	10:05 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
254	9/29/2014	12:20 PM	BC/MC	NONE				INDUSTRIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
255	10/6/2014	12:50 PM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	NO					
256	9/29/2014	11:37 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
257	9/29/2014	9:54 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	YES	YES					
258	9/29/2014	11:56 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					
259	9/30/2014	11:10 AM	BC/MC	NONE				RESIDENTIAL	NONE	NONE	NONE	NONE		NONE	NO	NO					

RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034

# APPENDIX F

## INTERCONNECTION INVENTORY (UPDATED)

RIPDES PHASE II ANNUAL REPORT, YR 12  
TOWN OF SMITHFIELD, RI

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

Interconnection: (Smithfield ID number)	Date Found:	Location: (Nearest address)	Name of Connectee:	Originating Source:	Planned and Coordinated Efforts and Activities with Connectee:
<b>SMITHFIELD TO RIDOT</b>					
X01	2010	1 KAREN ANN DR	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X02	2010	381 FARNUM PIKE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X03	2010	74 BRAYTON RD	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X05	2010	26 ORCHARD AVE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X07	2010	2 APPLE VALLEY PKWY	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X08	2010	64 SMITH AVE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X09	2010	66 DEAN AVE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X10	2010	50 ESMOND ST	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X11	2010	264 PUTNAM PIKE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X13	2010	2 ROGLER FARM RD	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X14	2013	22 ROSEMARY LN	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X15	2014	48 MAC ARTHUR DR	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X16	2014	22 PLEASANT VIEW AVE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X17	2014	44 PLEASANT VIEW AVE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X18	2014	79 SMITH AVE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X21	2015	514 PUTNAM PIKE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
X22	2015	562 PUTNAM PIKE	Smithfield --> RIDOT	Town Street Drainage	Inform RIDOT of interconnection
<b>SMITHFIELD TO TOWN OF JOHNSTON</b>					
X04	2010	23 WADE DR	Smithfield --> Johnston	Town Street Drainage	Inform Johnston of interconnection
X06	2010	41 ROGER WILLIAMS DR	Smithfield --> Johnston	Town Street Drainage	Inform Johnston of interconnection
<b>SMITHFIELD TO TOWN OF NORTH PROVIDENCE</b>					
X12	2010	89 WOODHAVEN BLVD	Smithfield --> North Providence	Town Street Drainage	Inform North Providence of interconnection
<b>SMITHFIELD TO PRIVATE OWNER</b>					
X19	2015	41 COLWELL RD	Smithfield --> Private Owner	Town Street Drainage	
X20	2015	125 INDIAN RUN TRAIL	Smithfield --> Private Owner	Town Street Drainage	
<b>RIDOT TO SMITHFIELD</b>					
I-002 / 002 CB 07A	2010	18 PEBRYN AVE	RIDOT --> Smithfield	State Drainage	Inform RIDOT of interconnection
I-024 / 024 CB-05	2010	157 FARNUM PIKE	RIDOT --> Smithfield	State Drainage	Inform RIDOT of interconnection
I-122A / 122 CB-03	2010	61 DEAN ST	RIDOT --> Smithfield	State Drainage	Inform RIDOT of interconnection
I-122B / 122 CB-06	2010	1 HOWARD ST	RIDOT --> Smithfield	State Drainage	Inform RIDOT of interconnection
I-124 / 124 DMH-01	2010	1 FRIAR BROOK DR	RIDOT --> Smithfield	State Drainage	Inform RIDOT of interconnection
I-129	2011	1 CHAMBERLAIN ST	RIDOT --> Smithfield	State Drainage	Inform RIDOT of interconnection
I-X17 / X17 CB-02	2014	39 PLEASANT VIEW AVE	RIDOT --> Smithfield	State Drainage	Inform RIDOT of interconnection
<b>TOWN OF LINCOLN TO SMITHFIELD</b>					
I-256 / 256 CB-02	2014	25 LINFIELD DR	Lincoln --> Smithfield	Town Street Drainage	Inform Lincoln of interconnection
I-258 / 258 DMH-01	2014	33 GREENWOOD LN	Lincoln --> Smithfield	Town Street Drainage	Inform Lincoln of interconnection
<b>PRIVATE TO SMITHFIELD</b>					
I-001 / 001 CB-06	2010	18 KENSINGTON ST	MURPHY DENNIS J ET UX	6" PVC Unknown - foundation?	Require Permitting or Plug
I-002A / 002 CB-01C	2010	22 FAIRMOUNT ST	LABOSSIERE KYLE J ET AL	Timberlane Condo Development	None - Permitted Discharge
I-002B / 002 CB-03B	2014	6 HILLSIDE ST	HICKS DENNIS ET UX	6" PVC - Unknown Source	Require Permitting or Plug
I-002C / 002 CB-05B	2014	28 PENBRYN AVE	KHALEK KARIM ET AL	8" PVC - Unknown Source	Require Permitting or Plug
I-002D / 002 CB-05C	2010	157 OLD COUNTY RD	GODIN SCOTT F ET UX	12" RCP - Field & Wetland Drainage	None - installed by RIDOT in 1930's
I-003A / 003 CB-03	2010	3 FENWOOD AVE	UNKNOWN	6" Clay from Private DMH	None
I-003B / 003 CB-04	2010	11 FENWOOD AVE	LATORRE ELAINE	4" Clay from Private CB in rear yard	Require Permitting or Plug
I-007 / 007 CB-08	2010	77 STILLWATER RD	DRUMMOND DANIEL L ET AL	12" PVC - Inlet for Stream	None - Town installed in 1970's
I-008 / 008 CB-02	2010	105 MANN SCHOOL RD	RAY SANDRA G LIVING TRUST	4" PVC - Unknown Source	Require Permitting or Plug
I-010 / 010 CB-05	2010	62 CAPRON RD	MATTERO PATSY A	Wetland Inlet	None - Town installed
I-016 / 016 CB-04	2010	17 WELCOME RD	TOWN OF SMITHFIELD	6" PVC - Unknown Source	Camera could not fit in line
I-024A / 024 DMH-06	2010	298 OLD COUNTY RD	STILES KEITH A	4" Clay - Unknown Source	Require Permitting or Plug
I-024B / 024 DMH-07	2010	298 OLD COUNTY RD	STILES KEITH A	4" PVC - Roof drains	Permitted 2006
I-039 / 039 CB-11	2010	19 MAUREEN DRIVE	PLUCHINO RITA C	6" - Unknown Source	Require Permitting or Plug
I-042A / 042 CB-01	2014	11 REDFERN DR	UNKNOWN	(2) 4" PVC - Unknown Source	Further investigate - Field Work
I-042B / 042 DMH-01	2014	11 REDFERN DR	ANNMARIE MISSAGHAN TRUST AGREEMENT	6" PVC - Unknown Source	Further investigate - Field Work
I-042C / 042 CB-04	2014	32 FORESTWOOD DR	RODRIGUES JACE M ET UX	6" PVC - Unknown Source	Further investigate - Field Work
I-047 / 047 CB-07	2014	19 HIGHVIEW DR	AGWUNOBI FRANCESCA L	(2) 4" PVC - Unknown Source	Further investigate - Field Work
I-048 / 048 CB-02	2011	47 MAUREEN DRIVE	BOUVIER RICHARD J ET UX	6" HDPE - Unknown Source	Require Permitting or Plug
I-049A / 049 CB-10A	2010	3 LORI ELLEN DR	SOLDA MAURIZIO ET UX	4" PVC - Unknown Source	Require Permitting or Plug
I-049B / 049 CB-11A	2010	4 LORI ELLEN DR	LANGTON CHRISTOPHER P ET UX	4" PVC - Unknown Source	Require Permitting or Plug
I-049C / 049 CB-11A	2010	2 LORI-ELLEN DR	PITRONE RICHARD A ET UX	6" PVC - Unknown Source	Require Permitting or Plug
I-049C / 049 CB-17A	2010	1 LORI ELLEN DR	CLARKE WILLIAM B ET UX	6" OB - Unknown Source	Require Permitting or Plug
I-049D / 049 CB-18A	2010	4 CLARK RD	TESSIER RAYMOND	6" PVC - Unknown Source	Require Permitting or Plug
I-049D / 049 CB-18A	2010	2 CLARK ROAD	WYTRWAL PAUL C ET UX	6" PVC - Unknown Source	Require Permitting or Plug
I-049E / 049 DMH-01B	2010	4 PRICE LN	RUTHVEN ALAN S ET UX	4"+ 6"+ 8" PVC	Further investigate - Camera
I-049F / 049 CB-11B	2010	5 + 7 PRICE LN	COCHRANE HENRY J JR	4" PVC, 3x6" CMP + 8" PVC	Further investigate - Camera
I-068 / 068 CB-05	2010	4 JAMBRAV DRIVE	BESSETTE GREGORY J ET UX	2x6" PVC Flowing	Suspect groundwater - Investigate
I-069 / 069 CB-04	2010	4 LEVESQUE DR	WHATMOUGH MICHAEL J ET UX	8" PVC - Unknown Source	Require Permitting or Plug
I-073A / 073 CB-02	2010	24 APPIAN WAY	EAST PENN MANUFACTURING COMPANY	12" RCP	Permitted
I-073B / 073 DMH-04	2010	24 APPIAN WAY	EAST PENN MANUFACTURING COMPANY	12" RCP	Permitted
I-107A / 107 CB-05	2010	17 CRABAPPLE LANE	UNKNOWN	4" OB	Further investigate - Field Work
I-107B / 107 DMH-01B	2010	2 VALLEY VIEW DR	HANSEN ROBERT	6" RCP - Unknown Source	Require Permitting or Plug
I-107B / 107 DMH-01B	2010	3 VALLEY VIEW DR	ZANNELLI MICHAEL L ET UX	6" RCP - Unknown Source	Require Permitting or Plug
I-107C / 107 CB-10	2010	4 CRABAPPLE LANE	UNKNOWN	4" PVC - Unknown Source	Further investigate - Field Work
I-107D / 107 CB-08A	2010	2 CRABAPPLE LANE	UNKNOWN	8" ASB - Unknown Source	Further investigate - Field Work
I-107E / 107 CB-06A	2010	8 KIMBERLY ANN DR	UNKNOWN	(3) 4" PVC - Unknown Source	Further investigate - Field Work

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

<b>Interconnection: (Smithfield ID number)</b>	<b>Date Found:</b>	<b>Location: (Nearest address)</b>	<b>Name of Connectee:</b>	<b>Originating Source:</b>	<b>Planned and Coordinated Efforts and Activities with Connectee:</b>
I-107F / 107 CB-04A	2010	14 KIMBERLY ANN DR	WARD SMITH ANTHONY ET UX	4" PVC - Unknown Source	Require Permitting or Plug
I-116A / 116 CB-04	2010	20 CONNORS FARM DR	BURSIE FRANK R ET UX	6" PVC	Require Permitting or Plug
I-116B / 116 CB-05	2010	17 CONNORS FARM DR	SIMONEAU LEO R ET UX	6" PVC - Flowing	Require Permitting or Plug
I-117 / 117 CB-02	2010	31 CONNORS FARM DR	SWEENEY JOHN S ET UX	4" PVC - Unknown Source	Require Permitting or Plug
I-124A / 124 CB-07	2010	5 GREENBRIER CT WEST	DISANO KAREN L	4" PVC - Unknown Source	Require Permitting or Plug
I-124A / 124 CB-07	2010	3 GREENBRIER CT WEST	HART JAMES A ET UX	4" PVC - Unknown Source	Require Permitting or Plug
I-124A / 124 CB-07	2010	6 GREENBRIER COURT WEST	GARBECKI CHARLES S ET UX	2 X 4", 6", 8" PVC - Unknown Source	Require Permitting or Plug
I-125A / 125 CB-11	2010	20 GREENBRIER RD	COLETTI PETER ET UX	6" - Unknown Source	Require Permitting or Plug
I-125B / 125 CB-28	2010	2 FAIR OAKS CT N	BARBATO FRANK P ET UX	4" Foundation Drain	Require Permitting or Plug
I-125C / 125 CB-30	2010	4 FAIR OAKS CT N	UNKNOWN	4" PCV	Require Permitting or Plug
I-125D / 125 CB-32	2010	4 FAIR OAKS LANE	LOMBARDO EDWARD ET UX	2x4" Roof Leader Drains	Require Permitting or Plug
I-125E / 125 CB-34	2010	4 FAIR OAKS COURT SOUTH	PESATURO BENJAMIN ET UX	4" PVC - Unknown Source	Require Permitting or Plug
I-125E / 125 CB-34	2010	6 FAIR OAKS CT SOUTH	CESARONI DANIEL A ET UX	4" PVC - Unknown Source	Require Permitting or Plug
I-125F / 125 CB-35	2010	8 FAIR OAKS COURT SOUTH	DELFINO MAUREEN L	4" PVC - Unknown Source	Require Permitting or Plug
I-133 / 133 CB-05	2010	9 LARK ROAD	CASWELL ERICA M	4" Clay - Unknown Source	Require Permitting or Plug
I-145A / 145 CB-10A	2010	20 HIGGINS ST	GEORGIAVILLE APARTMENTS LP	12" RCP Apartment Bldg Drainage	Require Permitting or Plug
I-145A / 145 CB-10A	2010	20 HIGGINS ST	GEORGIAVILLE APARTMENTS LP	2 x 4" PVC Apartment Bldg Drainage	Require Permitting or Plug
I-145B / 145 DMH-05	2010	20 HIGGINS ST	GEORGIAVILLE APARTMENTS LP	12" RCP Apartment Bldg Drainage	Require Permitting or Plug
I-145C / 145 CB-15	2010	18 STILLWATER RD	DOLPHIN DIANE M	12" RCP - Unknown Source	Further investigate - Camera
I-148 / 148 CB-01	2010	35 LAKESIDE DR	CATLOW GREGG L ET UX	6" CPP - Unknown Origin	Require Permitting or Plug
I-149 / 149 CB-03	2010	63 LAKESIDE DRIVE	MERLINO PETER A ET UX	4" DI - Unknown Origin	Require Permitting or Plug
I-151 / 151 CB-02	2010	39 CONNORS FARM DR	UPTON DANIEL E ET UX	6" PVC - Unknown Source	Require Permitting or Plug
I-159A / 159 CB-02	2010	56 CONNORS FARM DR	SANGIOVANNI PETER JR	4" PVC - Unknown Source	Require Permitting or Plug
I-159B / 159 DMH-01	2010	56 CONNORS FARM DR	SANGIOVANNI PETER JR	6" PVC - Unknown Source	Require Permitting or Plug
I-159B / 159 DMH-01	2010	55 CONNORS FARM DR	BOULLANGER DAVID A ET UX	6" PVC - Unknown Source	Require Permitting or Plug
I-159C / 159 CB-04	2010	57 CONNORS FARM DR	EMERSON DONALD P ET UX	6" PVC - Unknown Source	Require Permitting or Plug
I-159D / 159 CB-06	2010	87 MANN SCHOOL RD	DISTEFANO CHERYL L ET VIR	3" PVC - Unknown Source	Require Permitting or Plug
I-162A / 162 CB-02	2010	42 LINCOLN ST	AYRIAN VERONIKA	12" RCP Inlet for Stream	None - Inlet for stream
I-162B / 162 CB-03	2010	42 LINCOLN ST	AYRIAN VERONIKA	8" Clay - From vacant land	Further investigate - Field Work
I-162C / 162 CB-04	2010	42 LINCOLN ST	AYRIAN VERONIKA	15" RCP - Unknown	Further investigate - no discharge
I-163A / 163 CB-03A	2011	14 RIDGE RD	BAUER DEBRA A ET ALS CHRISTIANSEN	4" Clay - Unknown Source	Further investigate - Field Work
I-163B / 163 CB-14A	2010	LAPERCHE SCHOOL	TOWN OF SMITHFIELD	15" RCP + 4" PVC - Unknown Source	Further investigate
I-163C / 163 CB-16A	2010	LAPERCHE SCHOOL	TOWN OF SMITHFIELD	4" PVC - Unknown Source	Further investigate
I-163D / 163 CB-18A	2010	LAPERCHE SCHOOL	TOWN OF SMITHFIELD	4" PVC - Unknown Source	Further investigate
I-167 / 167 DMH-03	2010	10 JULIEN ST	POORE BRENDEN S ET AL	4" OB - Foundation Drain	Owner Plugged in Fall 2010
I-187A / 187 CB-02	2011	19 SUTTON ST	FALK STEVEN	10" PVC - Clogged	Unknown & not operational
I-187B / 187 CB-11	2011	11 WILLOW	Unknown	12" RCP	Further investigate - Field Work
I-189A / 189 CB-11	2010	8 CONCORD ST	Unknown	3x4" Clay - Unknown Sources	Further investigate - Field Work
I-189B / 189 CB-12	2010	12 CONCORD ST	TINSWORTH JEAN	4" HDPE - Unknown Source	Require Permitting or Plug
I-208A / 208 CB-05	2010	231 JOHN MOWRY RD	Unknown	10" PVC - Woods	Further investigate - Field Work
I-208B / 208 CB-06	2010	221 JOHN MOWRY RD	HILLSTROM REVOCABLE AGRMNT OF TRUST	4" Pipe - Suspicious	Require Permitting or Plug
I-215 / 215 CB-02	2010	23 FACTORY POND CIR	CURRAN DANIEL P ET UX	4" HDPE - Unknown Source	Require Permitting or Plug
I-226A / 226 CB-07A	2010	51 MAUREEN DR	LEARY TERRENCE J ET UX	4" HDPE - Unknown Source	Require Permitting or Plug
I-226B / 226 CB-10A	2010	9 CLARK ROAD	LANNI EDWARD J ET UX	4" PVC - Unknown Source	Require Permitting or Plug
I-226C	2013	22 KAREN ANN DR	BROUSSEAU PAUL R ET UX	6" PVC Underdrain	Further investigate - Field Work
I-227A / 227 CB-13	2014	20 FORESTWOOD DR	RICCI LISA M	4" PVC - Unknown Source	Further investigate - Field Work
I-227B / 227 CB-09	2014	30 FORESTWOOD DR	DISANDRO RONALD M ET UX	6" PVC - Unknown Source	Further investigate - Field Work
I-227C / 227 CB-08	2014	31 FORESTWOOD DR	LECLERC STEVEN D ET UX	4" PVC - Unknown Source	Further investigate - Field Work
I-254A / 254 CB-09	2013	10 BUSINESS PARK DR	UNKNOWN	24" RCP - Unknown Source	Further investigate - Field Work
I-254B / 254 CB-10	2013	13 BUSINESS PARK DR	UNKNOWN	12" RCP - Unknown Source	Further investigate - Field Work
I-254C / 254 CB-11	2013	10 BUSINESS PARK DR	UNKNOWN	24" RCP - Unknown Source	Further investigate - Field Work
I-X01 / X01 CB-06	2010	8 KAREN ANN DR	BEAUVAIS STEVEN J ET UX	2x4" PVC - Unknown Source	Require Permitting or Plug
I-X04 / X04 DMH-02	2010	22 WADE DR	MAHDESAN TANYA M	4" Asbestos - Unknown Source	Further investigate - Field Work
I-X06A / X06 CB-02	2010	34 ROGER WILLIAMS DR	DICK JAMES A ET UX	4" Asbestos - Unknown Source	Require Permitting or Plug
I-X06B / X06 CB-01B	2010	2 BIRCH RD	CONTI MICHAEL ET UX	4" Asbestos - Unknown Source	Require Permitting or Plug
I-X06C / X06 CB-02B	2010	7 CYPRESS DR	JONSON DOROTHY L TRUST	4" Asbestos - Unknown Source	Require Permitting or Plug
I-X06D / X06 CB-09C	2010	5 OAKHURST DR	MACHON BRENDA M	4" Asbestos - Unknown Source	Require Permitting or Plug
I-X06D / X06 CB-09C	2010	3 OAKHURST DR	STADNICK PAUL H	4" Asbestos - Unknown Source	Require Permitting or Plug
I-X06E / X06 DMH-02C	2010	9 ORCHARD AVE	MENATIAN STEVE ET UX	4" Asbestos - Unknown Source	Require Permitting or Plug
I-UIC / CB-03	2010	225 HARRIS RD	CATALLOZZI ALBERTA M	4" PVC - Unknown Source	Require Permitting or Plug

RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034

# APPENDIX G

TOWN BMP INVENTORY/INSPECTION  
(DETENTION BASINS AND STRUCTURES)

RIPDES PHASE II ANNUAL REPORT, YR 12  
TOWN OF SMITHFIELD, RI

TOWN MAINTAINED BMP INVENTORY - 2015

BMP NO.	BMP TYPE	ASSOCIATED OUTFALLS	PARCEL ID	NEAREST STREET	DEVELOPMENT NAME	YEAR BUILT	ACCESSIBLE FOR MAINTENANCE	INLETS	OUTLET CONTROL TYPE	COMMENTS
P-01	DETENTION POND	70	49-202	ELNA DRIVE -12		1988	YES	1	PIPE(S)	
P-02	DETENTION POND	50	45-107	CLARK RD - 25			YES	1	ORIFICE STRUCTURE	
P-03	DETENTION POND	50	45-57	CLARK RD - 50			YES	1	PIPE(S)	
P-04	INFILTRATION POND	NA	45-126	CLARK RD - 69			SEE COMMENT	1	WEIR	NO EASEMENT
P-05	DETENTION POND	NA	45-65	CLARK RD - 86			YES	1	UNKNOWN	
P-06	DETENTION POND	NA	45-65	CLARK RD - 86			YES	1	PIPE(S)	
P-07	DETENTION POND	229	45-71	CLARK RD - 100			YES	1	PIPE(S)	AT END OF CLARK
P-08	DETENTION POND	206	45-164	VICTORIA DR - 14	ANGELL FARMS ESTATES	2007	YES	1	ORIFICE STRUCTURE	
P-09	DETENTION POND	215 + 216 + 217	8-66	FACTORY POND CIR - 20	FACTORY POND ESTATES	1990		3	OVERFLOW & DRYWELLS	
P-10	DETENTION POND	117	47-187	CONNERS FARM RD - 32	CONNORS FARM ESTATES	1993	YES	1	PIPE(S)	
P-11	DETENTION POND	116	47-193	CONNERS FARM RD - 20	CONNORS FARM ESTATES	1993	YES	1	PIPE(S)	
P-12	DETENTION POND	14	47-135	CONNERS FARM RD - 1	CONNORS FARM ESTATES	1993	YES	1	PIPE(S)	PRIVATE PROPERTY
P-13	DETENTION POND	8	47-135	CONNERS FARM RD - 1	CONNORS FARM ESTATES	1993	YES	1	PIPE(S)	
P-14	DETENTION POND	159	47-168	CONNERS FARM RD - 53	CONNORS FARM ESTATES	1993	SEE COMMENT	1	PIPE(S)	NO EASEMENT - 400' OFF ROAD
P-15	DETENTION POND	151	47-193	CONNERS FARM RD - 36	CONNORS FARM ESTATES	1993	SEE COMMENT	1	PIPE(S)	350' OFF OF ROAD - WOODED
P-16	DETENTION POND	36	42-213	DEERHILL DR - 2	DEERHILL ESTATES	2002	YES	1	ORIFICE STRUCTURE	ACCESS OVER MANICURED LAWN
P-17	DETENTION POND	37	42-210	DEERHILL DR - 8	DEERHILL ESTATES	2002	YES	1	ORIFICE STRUCTURE	ACCESS OVER MANICURED LAWN
P-18	DETENTION POND	26	34-90	DINARO DR - 5	DINARO ESTATES		YES	1	UNKNOWN	ACCESS THRU WOODS
P-19	DETENTION POND	214	8-72	FACTORY POND CIR - 4	FACTORY POND ESTATES	1990		2	PIPE(S) & DRYWELLS	
P-20	DETENTION POND	NA	49-214	HIGHLAND TERRACE - 6	FORGE HILL ESTATES	1990	SEE COMMENT	1	ORIFICE STRUCTURE	WOODS
P-21	DETENTION POND	89	49A-51	HIGHLAND TERRACE - 4	FORGE HILL ESTATES	1990	SEE COMMENT	1	UNKNOWN	WOODS + STEEP SLOPES
P-22	DETENTION POND	113 + 183	46-327	BALSAM LN	FOX RUN ESTATES		SEE COMMENT	1	ORIFICE STRUCTURE	WOODED SWAMP
P-23	DETENTION POND	168	46-270	HANTON CITY TR - 3	SUMMER COURT	1988	YES	1	PIPE(S)	ACCESS OVER MANICURED LAWN
P-24	DETENTION POND	232	42-196	HUNTERS KNOLL - 19	HUNTERS KNOLL ESTATES		YES	1	ORIFICE STRUCTURE	
P-25	DETENTION POND	12	44-70	SOPHIA LN - 28	GREENVILLE TERRACE	2004	YES	1	ORIFICE STRUCTURE	
P-26	DETENTION POND	42	45D-22	RED FERN DR - 11	LIMEROCK FARMS	1993	YES	1	ORIFICE STRUCTURE	
P-27	DETENTION POND	41	45D-21	FOREST WOOD DR - 9	LIMEROCK FARMS	1993	YES	1	ORIFICE STRUCTURE	ACCESS THRU WOODS
P-28	DETENTION POND	227	45D-27	FOREST WOOD DR - 43	LIMEROCK FARMS	1993	YES	1	ORIFICE STRUCTURE	AT CUL-DE-SAC
P-29	SILTATION BASIN	235	43-11	LARK INDUSTRIAL PWY - 34A	LARK INDUSTRIAL DEVELOPMENT		YES	1	PIPE(S)	CONCRETE TROUGH BASIN
P-30	DETENTION POND	108	44-122	VALLEY VIEW DR - 27	MAPLEWOODS SUB. #6	1995	YES	1	ORIFICE STRUCTURE	
P-31	DETENTION POND	28	43-34	STONY LN - 5	MOUNTAINDALE ESTATES	1995	SEE COMMENT	1	ORIFICE STRUCTURE	ACCESS DIFFICULT - WOODS
P-32	DETENTION POND	29	43-139	STONY LN - 17	MOUNTAINDALE ESTATES	1995	SEE COMMENT	1	ORIFICE STRUCTURE	ACCESS DIFFICULT - WOODS
P-33	DETENTION POND	105	44A-61	HAWTHORN RD - 14	OLDE SMITHFIELD VILLAGE		YES	1	ADJUSTABLE WEIR	ACCESS OVER MANICURED LAWN
P-34	DETENTION POND	139	47-56A	CHERRY BLOSSOM LN - 5	SPRAGUE VILLAGE - PHASE 2	2008	YES	1	ORIFICE STRUCTURE	
P-35	DETENTION POND	72 + 73	46-285	APPAIN WAY - 23	STILLWATER INDUSTRIAL PARK		YES	2	ORIFICE STRUCTURE	
P-36	DETENTION POND	140	47-56A	VAL-JEAN DR - 20	SPRAGUE VILLAGE - PHASE 1	2004	YES	1	ORIFICE STRUCTURE	
P-37	DETENTION POND	141	47-228	FIELD STONE CIR - 4	SPRAGUE VILLAGE - PHASE 1	2004	NO	1	ORIFICE STRUCTURE	NO ACCESS - RETAINING WALL OBSTR.
P-38	DETENTION POND	225	44I-13	ROSEMARY LANE - 22	WEST GREENVILLE ESTATES		YES	1	NONE	DRAINS INTO NATURAL WETLAND
P-39	DETENTION POND	121	44I-15	MAGNOLIA CIR - 3	WEST GREENVILLE ESTATES		YES	1	UNKNOWN	ACCESS OVER MANICURED LAWN
P-40	DETENTION POND	30	44I-8	PINE GROVE CT - 9	WEST GREENVILLE ESTATES		NO	1	INFILTRATION / DRYWELLS	ACCESS OBSTRUCTED BY HOUSE
P-41	DETENTION POND	224	44I-20	OAKWOOD CIR - 8	WEST GREENVILLE ESTATES			1	INFILTRATION / DRYWELLS	
P-42	DETENTION POND	132	44-33	LISA ANN CIR	DEERFIELD PARK	2002	YES	1	ORIFICE STRUCTURE	
P-43	DETENTION POND	40	44-33	LISA ANN CIR	DEERFIELD PARK	2002	YES	1	ORIFICE STRUCTURE	WITH VORTEC STRUCTURE
P-44	DETENTION POND	207	45-19	RYAN COURT - 11	LAKEVIEW ESTATES	2003	YES	1	ORIFICE STRUCTURE	
P-45	DETENTION POND	164	42-219	RIDGE VIEW CT - 12	OAKRIDGE ESTATES	2002	SEE COMMENT	1	ORIFICE STRUCTURE	STEEP SLOPES / LIMITED ACCESS
P-46	DETENTION POND	254	48-77	BUSINESS PARK DR	I-295 BUSINESS PARK		YES	1	ORIFICE STRUCTURE	
P-47	DETENTION POND	NA	47-252	McKENZIE DR - 1	HIDDEN VALLEY ESTATES	2004	YES	1	WEIR	AT ENTRANCE - WATERWAY INLET
P-48	DETENTION POND	NA	47-250	McKENZIE DR - 6	HIDDEN VALLEY ESTATES	2004	YES	1	ORIFICE STRUCTURE	PRIVATE FENCE AROUND BASIN

**TOWN MAINTAINED BMP INVENTORY - 2015**

BMP NO.	BMP TYPE	ASSOCIATED OUTFALLS	PARCEL ID	NEAREST STREET	DEVELOPMENT NAME	YEAR BUILT	ACCESSIBLE FOR MAINTENANCE	INLETS	OUTLET CONTROL TYPE	COMMENTS
P-49	DETENTION POND	247	47-212	MEGAN CIR - 6	MAPLEVILLE HIGHLANDS - PHASE 1	1996	YES	1	WEIR	POND ON PRIVATE PROPERTY
P-50	DETENTION POND	156	47-239	KRISTEN DR - 1	MAPLEVILLE HIGHLANDS - PHASE 2	2003	YES	1	ORIFICE STRUCTURE	ACCESS OVER MANICURED LAWN
P-51	DETENTION POND	157	47-281	KRISTEN DR - 13	MAPLEVILLE HIGHLANDS - PHASE 2	2003	YES	1	ORIFICE STRUCTURE	
P-52	INFILTRATION POND	33	46-45	LOG ROAD - 55	MANN SCHOOL RD DRAINAGE	2011	YES	1	INFILTRATION	
P-53	DETENTION POND	NA	44-34	LISA ANN CIR	DEERFIELD PARK	2008	YES	1	ORIFICE STRUCTURE	WETLAND CREATION AREA
P-54	DETENTION POND	9	17-5	SPRAGUEVILLE RD	DPW YARD	2004		1	ORIFICE STRUCTURE	
P-55	RETENTION POND	68 + 155	49C-12	DONGAY DR - 1	MAYFLOWER ESTATES		YES	2	WEIR	
P-56	DETENTION POND	209	49-106A	DECOTIS FARM RD	ROADWAY B	2007	YES	1	ORIFICE STRUCTURE	
P-57	DETENTION POND	255	44-7	MAPLEVILLE RD			YES	1	PIPE(S)	
P-58	INFILTRATION POND	236	50-43	KYLIE CIR - 6	LAUREL WOODS	2006	YES	1	RIP RAP SWALE	
P-59	DETENTION POND	20	42-125	CREST CIR - 1	RIDGELAND ESTATES	2008	YES	1	ORIFICE STRUCTURE	
P-60	DETENTION POND	11	42-249	RIDGELAND RD - 13	RIDGELAND ESTATES	2008	YES	1	PIPE(S)	
P-61	DETENTION POND	21	42-255	CREST CIR - 5	RIDGELAND ESTATES	2009		1	ORIFICE STRUCTURE	
P-62	DETENTION POND	22	42-263	CREST CIR - 23	RIDGELAND ESTATES	2009		1	PIPE(S)	
P-63	DETENTION POND	233	42-228	DILLON LN - 7	DEAN ESTATES	2008	YES	1	ORIFICE STRUCTURE	
P-64	DETENTION POND	234	42-236	DILLON LN - 20	DEAN ESTATES	2008	YES	1	ORIFICE STRUCTURE	
P-65	DETENTION POND	79 + 80	44-41	STONE POST WAY - 12, 13	STONE POST ESTATES	2014	YES	2	ORIFICE STRUCTURE	
U-01	PIPE STORAGE	50	45-121	CLARK RD - 44, 50			SEE COMMENT	1	ORIFICE STRUCTURE	PIPE STORAGE BELOW STREET
U-02	GALLEYS	33	46-10	MANN SCHOOL RD - 8	MANN SCHOOL RD DRAINAGE	2011	YES	1	INFILTRATION	
U-03	GALLEYS	NA	46-5	SWANN RD - 47	CONTI ESTATES	2008	YES	1	INFILTRATION	
U-04	GALLEYS	NA	46-297	REARDON WAY - 2	CONTI ESTATES	2008	YES	1	INFILTRATION	
U-05	GALLEYS	179	46-391	REARDON WAY - 5	CONTI ESTATES	2008	YES	1	INFILTRATION	
U-06	GALLEYS	179	46-393	REARDON WAY - 4	CONTI ESTATES	2008	YES	1	INFILTRATION	
U-07	GALLEYS	169	46-280	POND VIEW CT - 6			YES	1	INFILTRATION	ACCESS THRU PRIVATE DRIVEWAY
U-08	GALLEYS	238	50-90	LOG RD - 487	LAUREL WOODS	2006			INFILTRATION	
U-09	GALLEYS	238	50-89	LOG RD - 491	LAUREL WOODS	2006			INFILTRATION	

TOWN MAINTAINED BMP INSPECTION - 2015

BMP NO.	DATE INSPECTED	INSPECTORS	PLAT & LOT	NEAREST STREET	ASSOCIATED OUTFALLS	BMP TYPE	MAINT. REQ'D	PRIORITY	PERFORMANCE	VEGETATIVE GROWTH	SEDIMENT ACCUMULATION	INLET(S)	OUTLET	EROSION	COMMENTS
P-01	11/30/15	MC	49-202	ELNA DRIVE -12	70	DETENTION POND	YES	LOW	FAIR	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	RIGHT SIDE & BOTTOM NEEDS MOWING - WOODY GROWTH AT INLET, OUTLET & RIGHT SIDE
P-02	11/10/15	MC	45-107	CLARK RD - 25	50	DETENTION POND	YES	LOW	FAIR	NORMAL	NORMAL	NORMAL	NORMAL	NONE	WOODY GROWTH ALONG BANKS, LOW FLOW ORIFICE CLOGS WITH LEAVES
P-03	11/10/15	MC	45-57	CLARK RD - 50	50	DETENTION POND	YES	MED	FAIR	MODERATE	NORMAL	NORMAL	NORMAL	NONE	NEEDS MOWING - WOODY GROWTH, LEAVES CLOGGING OUTFALL
P-04	11/10/15	MC	45-126	CLARK RD - 69	NA	INFILTRATION POND	YES	LOW	FAIR	NORMAL	YES - INLET	NORMAL	NORMAL	NONE	CULVERT INLET NEEDS FLUSHING, SOME WOODY GROWTH ON BERM NOT MOWED
P-05	11/10/15	MC	45-65	CLARK RD - 86	NA	DETENTION POND	YES	LOW	FAIR	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED, INLET PIPE NEEDS FLUSHING
P-06	11/10/15	MC	45-65	CLARK RD - 86	NA	DETENTION POND	YES	LOW	FAIR	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED, WOODY GROWTH ON BERM AND SPILLWAY NOT MOWED
P-07	11/10/15	MC	45-71	CLARK RD - 100	229	DETENTION POND	YES	LOW	POOR	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED, WOODY GROWTH ON SPILLWAY NOT MOWED, POND BOTTOM WET & NOT MOWED
P-08	11/10/15	MC	45-164	VICTORIA DR - 14	206	DETENTION POND	YES	LOW	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED - WOODY GROWTH AT OCS & BOTTOM
P-09	12/03/15	MC	8-66	FACTORY POND CIR - 20	215 + 216 + 217	DETENTION POND	YES	MED	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	MAINTAINED LAWN
P-10	11/17/15	MC	47-187	CONNERS FARM RD - 32	117	DETENTION POND	YES	MED	FAIR	NORMAL	NORMAL	NORMAL	OBSTRUCTED	NONE	NEEDS MOWING, LOW FLOW OUTLET PARTIALLY OBSTRUCTED
P-11	11/17/15	MC	47-193	CONNERS FARM RD - 20	116	DETENTION POND	NO	LOW	FAIR	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED, WET POND BOTTOM
P-12	11/17/15	MC	47-135	CONNERS FARM RD - 1	14	DETENTION POND	NO	LOW	FAIR	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED
P-13	11/17/15	MC	47-135	CONNERS FARM RD - 1	8	DETENTION POND	YES	HIGH	GOOD	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	EXTREMELY THICK - NEEDS MOWING, OUTFALL NOT ACCESSIBLE
P-14	11/17/15	MC	47-168	CONNERS FARM RD - 53	159	DETENTION POND	YES	IMMEDIATE	UNKNOWN	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	WOODY GROWTH, EXTREMELY THICK - NEEDS MOWING, NOT ACCESSIBLE
P-15	11/17/15	MC	47-193	CONNERS FARM RD - 36	151	DETENTION POND	YES	LOW	GOOD	MODERATE	YES - INLET	OBSTRUCTED	NORMAL	NONE	RECENTLY MOWED, WET POND BOTTOM - NEEDS MOWING
P-16	11/05/15	MC	42-213	DEERHILL DR - 2	36	DETENTION POND	YES	MED	FAIR	EXCESSIVE	YES - INLET	NORMAL	NORMAL	NONE	NEEDS MOWING, WOODY GROWTH AT BERM AND SAND AT INLET NEEDS REMOVAL
P-17	11/05/15	MC	42-210	DEERHILL DR - 8	37	DETENTION POND	YES	HIGH	FAIR	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	VERY THICK - NEEDS MOWING, INLET NEEDS DREDGING
P-18	11/09/15	MC	34-90	DINARO DR - 5	26	DETENTION POND	YES	HIGH	FAIR	EXCESSIVE	YES - INLET	NORMAL	NORMAL	NONE	VERY THICK - NEEDS MOWING, SEDIMENT AT INLET
P-19	12/03/15	MC	8-72	FACTORY POND CIR - 4	214	DETENTION POND	YES	LOW	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	OUTLET CB HAS SOME SEDIMENT IN SUMP
P-20	11/05/15	MC	49-214	HIGHLAND TERRACE - 6	NA	DETENTION POND	YES	HIGH	FAIR	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	HEAVILY OVERGROWN WITH TREES, NEEDS CLEARING
P-21	11/05/15	MC	49A-51	HIGHLAND TERRACE - 4	89	DETENTION POND	YES	IMMEDIATE	FAIR	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	HEAVILY OVERGROWN WITH TREES, NEEDS CLEARING
P-22	11/10/15	MC	46-327	BALSAM LN	113 + 183	DETENTION POND	YES	LOW	FAIR	NORMAL	NORMAL	NORMAL	NORMAL	INLET	WOODED WETLANDS WITH OCS, NEEDS CLEARING OF FALLEN LEAVES
P-23	11/13/15	MC	46-270	HANTON CITY TR - 3	168	DETENTION POND	YES	LOW	FAIR	NORMAL	YES - INLET	OBSTRUCTED	NORMAL	NONE	MAINTAINED LAWN, INLET AREA NEEDS DREDGING, INLET PIPE NEEDS FLUSHING
P-24	11/05/15	MC	42-196	HUNTERS KNOLL - 19	232	DETENTION POND	YES	HIGH	FAIR	EXCESSIVE	NONE	NORMAL	NORMAL	NONE	NEEDS MOWING, WOODY GROWTH AT OUTFALL, OUTFALL LEVELSPREADER BYPASSED & SOME EROSION
P-25	11/04/15	MC	44-70	SOPHIA LN - 28	12	DETENTION POND	YES	MED	GOOD	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	REQUIRES MOWING, PINES ON BERM SHOULD BE REMOVED, LOW FLOW OUTLET NOT DRAINING PROPERLY
P-26	11/10/15	MC	45D-22	RED FERN DR - 11	42	DETENTION POND	NO	LOW	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED
P-27	11/10/15	MC	45D-21	FOREST WOOD DR - 9	41	DETENTION POND	YES	HIGH	FAIR	EXCESSIVE	NONE	NORMAL	NORMAL	NONE	HEAVILY WOODED, NOT MAINTAINED, NEEDS CLEARING
P-28	11/10/15	MC	45D-27	FOREST WOOD DR - 43	227	DETENTION POND	YES	LOW	GOOD	NORMAL	YES - INLET	NORMAL	NORMAL	NONE	RECENTLY MOWED, INLET NEEDS DREDGING
P-29	12/03/15	MC	43-11	LARK INDUSTRIAL PWY - 34A	235	SILTATION BASIN	YES	LOW	GOOD	MODERATE	NORMAL	NORMAL	NORMAL	NONE	MINOR AMOUNT OF SILT WITHIN BASIN, NEEDS SOME VEGETATION CLEARING
P-30	11/19/15	MC	44-122	VALLEY VIEW DR - 27	108	DETENTION POND	YES	MED	FAIR	MODERATE	YES - INLET	NORMAL	NORMAL	NONE	REQUIRES WOODY GROWTH REMOVAL & MOWING, SAND AT INLET NEEDS REMOVAL, TRASH
P-31	11/03/15	MC	43-34	STONY LN - 5	28	DETENTION POND	YES	IMMEDIATE	POOR	EXCESSIVE	YES - IN/OUTLETS	OBSTRUCTED	OBSTRUCTED	NONE	OVERGROWN IN WOODS, NEEDS CLEARING, OCS CLOGGED
P-32	11/03/15	MC	43-139	STONY LN - 17	29	DETENTION POND	YES	IMMEDIATE	POOR	EXCESSIVE	YES - OUTLET	DAMAGED	OBSTRUCTED	EMBANKMENT	BERM COMPROMISED, OVERGROWN IN WOODS, NEEDS CLEARING, OCS CLOGGED, INLET PIPE SEPARATED
P-33	11/10/15	MC	44A-61	HAWTHORN RD - 14	105	DETENTION POND	YES	LOW	FAIR	NORMAL	YES - INLET	NORMAL	NORMAL	NONE	SEDIMENT AT INLET NEEDS REMOVAL
P-34	11/19/15	MC	47-56A	CHERRY BLOSSOM LN - 5	139	DETENTION POND	YES	HIGH	FAIR	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	HEAVILY OVERGROWN - NEEDS MOWING, PRIVATELY OWNED - NOT MAINTAINED BY THE TOWN
P-35	11/13/15	MC	46-285	APPAIN WAY - 23	72 + 73	DETENTION POND	YES	IMMEDIATE	POOR	EXCESSIVE	YES - IN/OUTLETS	NORMAL	OBSTRUCTED	NONE	LOW FLOW OUTLET NOT WORKING PROPERLY, NEEDS MOWING, OUTFALL ACCESS NEEDED
P-36	11/19/15	MC	47-56A	VAL-JEAN DR - 20	140	DETENTION POND	YES	LOW	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED, LOW FLOW CLEANOUT PIPE BROKEN OFF
P-37	11/19/15	MC	47-228	FIELD STONE CIR - 4	141	DETENTION POND	YES	HIGH	GOOD	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	OVERGROWN WITH BRIERS - NEEDS MOWING, NO ACCESS TO OCS
P-38	11/19/15	MC	44I-13	ROSEMARY LANE - 22	225	DETENTION POND	YES	LOW	FAIR	NORMAL	NORMAL	NORMAL	NORMAL	NONE	SOME SMALL WOODY GROWTH ON SIDE SLOPES - NEEDS REMOVAL
P-39	11/19/15	MC	44I-15	MAGNOLIA CIR - 3	121	DETENTION POND	YES	MED	GOOD	MODERATE	NORMAL	NORMAL	NORMAL	NONE	BERM, SLOPES & BOTTOM WOODY GROWTH REMOVAL NEEDED, LIMITED MAINTENANCE ACCESS
P-40	11/19/15	MC	44I-8	PINE GROVE CT - 9	30	DETENTION POND	YES	HIGH	POOR	NORMAL	YES - IN/OUTLETS	NORMAL	NORMAL	NONE	SEDIMENT 1/2 FILLED DRYWELL, OVERGROWN TREES, BERM NEEDS REPAIR, NO MAINTENANCE ACCESS
P-41	11/19/15	MC	44I-20	OAKWOOD CIR - 8	224	DETENTION POND	YES	HIGH	FAIR	MODERATE	YES - IN/OUTLETS	NORMAL	NORMAL	NONE	SEDIMENT 1/2 FILLED DRYWELL, NEEDS MOWING
P-42	11/10/15	MC	44-33	LISA ANN CIR	132	DETENTION POND	YES	LOW	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED, STONES INSIDE OUTLET PIPE NEED REMOVAL
P-43	11/10/15	MC	44-33	LISA ANN CIR	40	DETENTION POND	YES	LOW	GOOD	NORMAL	YES - OUTLET	NORMAL	NORMAL	NONE	RECENTLY MOWED, OCS INLET NEEDS CLEARING
P-44	11/10/15	MC	45-19	RYAN COURT - 11	207	DETENTION POND	YES	HIGH	FAIR	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	NEEDS MOWING, POORLY DRAINED, POND BOTTOM WET, CATTAILS
P-45	11/05/15	MC	42-219	RIDGE VIEW CT - 12	164	DETENTION POND	YES	MED	FAIR	MODERATE	NORMAL	NORMAL	NORMAL	NONE	WOODY GROWTH - NEEDS MOWING, LOW FLOW OUTLET CLOGGED WITH MULCH
P-46	11/10/15	MC	48-77	BUSINESS PARK DR	254	DETENTION POND	YES	IMMEDIATE	POOR	EXCESSIVE	YES - IN/OUTLETS	NORMAL	OBSTRUCTED	NONE	NEEDS MOWING, WET POND BOTTOM, LOW FLOW OUTLET NOT WORKING PROPERLY
P-47	11/18/15	MC	47-252	MCKENZIE DR - 1	NA	DETENTION POND	YES	LOW	FAIR	NORMAL	NORMAL	NORMAL	NORMAL	NONE	SOME WOODY GROWTH SHOULD BE REMOVED
P-48	11/18/15	MC	47-250	MCKENZIE DR - 6	NA	DETENTION POND	YES	LOW	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	MAINTAINED, WOODY GROWTH ON BERM NEEDS REMOVAL
P-49	11/18/15	MC	47-212	MEGAN CIR - 6	247	DETENTION POND	YES	MED	FAIR	MODERATE	NORMAL	NORMAL	NORMAL	NONE	NEEDS MOWING, WOODY GROWTH ON BERM NEEDS REMOVAL
P-50	11/18/15	MC	47-239	KRISTEN DR - 1	156	DETENTION POND	YES	MED	FAIR	MODERATE	NORMAL	NORMAL	OBSTRUCTED	NONE	NEEDS MOWING, WOODY GROWTH ON BERM NEEDS REMOVAL
P-51	11/18/15	MC	47-281	KRISTEN DR - 13	157	DETENTION POND	YES	IMMEDIATE	FAIR	EXCESSIVE	NORMAL	NORMAL	NORMAL	NONE	NEEDS MOWING, LOW FLOW OUTLET NOT WORKING PROPERLY, NO ACCESS, NO GATE
P-52	11/16/15	MC	46-45	LOG ROAD - 55	33	INFILTRATION POND	YES	HIGH	FAIR	EXCESSIVE	YES - INLET	OBSTRUCTED	NORMAL	NONE	WOODY BERM, SLOPES & BOTTOM NEEDS MOWING, DREDGING NEEDED AROUND INLET FES
P-53	11/10/15	MC	44-34	LISA ANN CIR	NA	DETENTION POND	NO	MED	GOOD	MODERATE	NONE	NORMAL	NORMAL	NONE	REQUIRES MOWING
P-54	11/03/15	MC	17-5	SPRAGUEVILLE RD	9	DETENTION POND	YES	LOW	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	RECENTLY MOWED, BOTTOM NEEDS MOWING
P-55	11/16/15	MC	49C-12	DONGAY DR - 1	68 + 155	RETENTION POND	NO	LOW	NOT DRAINING	NORMAL	YES - INLET	NORMAL	NORMAL	NONE	POORLY DRAINED, NO LOW FLOW OUTLET
P-56	11/13/15	MC	49-106A	DECOTIS FARM RD	209	DETENTION POND	YES	MED	GOOD	NORMAL	NORMAL	NORMAL	NORMAL	NONE	NEEDS MOWING
P-57	11/20/15	MC	44-7	MAPLEVILLE RD	255	DETENTION POND	YES	MED	GOOD	MODERATE	YES - INLET	NORMAL	NORMAL	NONE	NEEDS MOWING & CLEARING
P-58			50-43	KYLIE CIR - 6	236	INFILTRATION POND									PRIVATELY OWNED - NOT YET ACCEPTED BY TOWN

**TOWN MAINTAINED BMP INSPECTION - 2015**

BMP NO.	DATE INSPECTED	INSPECTORS	PLAT & LOT	NEAREST STREET	ASSOCIATED OUTFALLS	BMP TYPE	MAINT. REQ'D	PRIORITY	PERFORMANCE	VEGETATIVE GROWTH	SEDIMENT ACCUMULATION	INLET(S)	OUTLET	EROSION	COMMENTS
P-59			42-125	CREST CIR - 1	20	DETENTION POND									PRIVATELY OWNED - NOT YET ACCEPTED BY TOWN
P-60			42-249	RIDGELAND RD - 13	11	DETENTION POND									PRIVATELY OWNED - NOT YET ACCEPTED BY TOWN
P-61			42-255	CREST CIR - 5	21	DETENTION POND									PRIVATELY OWNED - NOT YET ACCEPTED BY TOWN
P-62			42-263	CREST CIR - 23	22	DETENTION POND									PRIVATELY OWNED - NOT YET ACCEPTED BY TOWN
P-63	11/05/15	MC	42-228	DILLON LN - 7	233	DETENTION POND	NO	MED	GOOD	MODERATE	NONE	NORMAL	NORMAL	NONE	REQUIRES MOWING
P-64	11/05/15	MC	42-236	DILLON LN - 20	234	DETENTION POND	NO	LOW	GOOD	NORMAL	NONE	NORMAL	NORMAL	NONE	RECENTLY MAINTAINED, TREES ON BERM SHOULD BE REMOVED
P-65			44-41	STONE POST WAY - 12, 13	79 + 80	DETENTION POND									PRIVATELY OWNED - NOT YET ACCEPTED BY TOWN
U-01			45-121	CLARK RD - 44, 50	50	PIPE STORAGE	NO	N/A	GOOD						
U-02			46-10	MANN SCHOOL RD - 8	33	GALLEYS	NO	N/A	GOOD						
U-03			46-5	SWANN RD - 47	NA	GALLEYS	NO	N/A	GOOD						
U-04			46-297	REARDON WAY - 2	NA	GALLEYS	NO	N/A	GOOD						
U-05			46-391	REARDON WAY - 5	179	GALLEYS	NO	N/A	GOOD						
U-06			46-393	REARDON WAY - 4	179	GALLEYS	NO	N/A	GOOD						
U-07			46-280	POND VIEW CT - 6	169	GALLEYS	NO	N/A	GOOD						
U-08			50-90	LOG RD - 487	238	GALLEYS									PRIVATELY OWNED - NOT YET ACCEPTED BY TOWN
U-09			50-89	LOG RD - 491	238	GALLEYS									PRIVATELY OWNED - NOT YET ACCEPTED BY TOWN

RIPDES SMALL MS4 ANNUAL REPORT  
RIPDES PERMIT NO. RIR040034

# APPENDIX H

## OUTFALL MAINTENANCE INSPECTION REPORT

RIPDES PHASE II ANNUAL REPORT, YR 12  
TOWN OF SMITHFIELD, RI

## 2015 OUTFALL MAINTENANCE INSPECTION REPORT

### TOWN OF SMITHFIELD

OUTFALL	DATE	FLOWING?	OUTLET CONDITION	DISCHARGE CONDITIONS	SEDIMENT ACCUMULATION	SCOURING	TRASH	CAUSES FLOODING	COMMENTS
1	11/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
2	11/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
3	11/05/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	YES	NO	NO	Requires clearing and riprap
4	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
5	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
6	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
7	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
8	11/17/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Overgrown - access needs clearing
9	11/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Overgrown - needs clearing
10	11/13/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	YES	NO	NO	Needs riprap at outfall
11	PRIVATE DRAINAGE SYSTEM								Private outfall
12	11/04/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Overgrown
13	11/09/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
14	11/17/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
15	09/25/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
16	11/05/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Sand in channel, CB sump full
17	11/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK - recently mowed
18	11/09/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	YES	NO	NO	Sand in channel to pond, needs riprap
19	11/09/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	OK
20	PRIVATE DRAINAGE SYSTEM								Private outfall
21	PRIVATE DRAINAGE SYSTEM								Private outfall
22	PRIVATE DRAINAGE SYSTEM								Private outfall
23	09/25/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Recently flushed
24	11/09/15	YES	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
25	11/09/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
26	11/09/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Needs dredging at outfall
27	11/18/15	NO	NEEDS MAINT.	UNOBSTRUCTED	MINIMAL	YES	NO	NO	Excessive channel erosion - needs vegetation or riprap
28	11/03/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe needs flushing
29	11/03/15	NO	NEEDS MAINT.	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	Pipe section separated, tree obstruction
30	11/19/15	NO	FAIR	BURIED	NEEDS REMOVAL	NO	NO	NO	Outfall inside drywell. Drywell 1/2 full of sand.
31	11/19/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 1/2 filled - needs dredging and flushing
32	11/09/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
33	11/16/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Needs dredging at outfall
34	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Some sand in pipe
35	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
36	11/05/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
37	11/05/15	NO	NEEDS MAINT.	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Needs mowing for access
38	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK, CB maybe drywell and outlet maybe roof drains
39	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
40	11/10/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
41	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
42	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
43	11/10/15	NO	NEEDS MAINT.	UNOBSTRUCTED	NONE	YES	NO	NO	Scouring is undermining flared end & berm rift repair needed
44	11/10/15	YES	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	Dripping - orange staining
45	11/10/15	YES	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Moderate flow - orange staining and some suds
46	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	OK
47	11/10/15	YES	NEEDS MAINT.	UNOBSTRUCTED	NONE	NO	NO	NO	Dripping flow
48	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
49	11/13/15	YES	POOR	SUBMERGED	IMPEDES DISCHARGE	NO	NO	NO	Trickle flow - pipe 2/3 submerged, needs dredging & flushing
50	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK - some sand in pipe

## 2015 OUTFALL MAINTENANCE INSPECTION REPORT

### TOWN OF SMITHFIELD

OUTFALL	DATE	FLOWING?	OUTLET CONDITION	DISCHARGE CONDITIONS	SEDIMENT ACCUMULATION	SCOURING	TRASH	CAUSES FLOODING	COMMENTS
51	PRIVATE DRAINAGE SYSTEM								
52	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK - Pipe 1/2 dark stained
53	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
54	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
55	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
56	09/28/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
57	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
58	11/18/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Surcharged outfall, OK
59	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Partially submerged
60	11/03/15	YES	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Moderate flow - suspicious 3" PVC pipe
61	11/10/15	NO	FAIR	PARTIALLY BLOCKED	NEEDS REMOVAL	MINIMAL	NO	NO	Pipe 1/2 fill of sand - needs flushing
62	09/28/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Needs flushing
63	12/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	OK
64	11/13/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	OK
65	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	YES	NO	OK
66	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
67	11/13/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe full of sand - needs flushing & dredging
68	11/16/15	NO	NEEDS MAINT.	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Needs vegetative clearing
69	11/16/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
70	11/30/15	NO	NEEDS MAINT.	UNOBSTRUCTED	NONE	NO	NO	NO	Woody vegetation needs clearing
71	11/18/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
72	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
73	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
74	11/13/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
75	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
76	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
77	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
78	11/13/15	NO	POOR	PARTIALLY BLOCKED	NEEDS REMOVAL	MINIMAL	NO	NO	Needs dredging at outfall and flushing
79	PRIVATE DRAINAGE SYSTEM								
80	PRIVATE DRAINAGE SYSTEM								
81	11/13/15	NO	EXCELLENT	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
82	12/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
83	11/16/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Some sand in pipe
84	11/16/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	YES	NO	OK
85	11/16/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
86	11/05/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK - some sand in channel, CB recently cleaned
87	11/05/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
88	11/05/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
89	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
90	10/23/15	YES	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Moderate flow, recently cleaned, some sand in pipe
91	11/05/15	NO	NEEDS MAINT.	COMPLETELY PLUGGED	NEEDS REMOVAL	NO	NO	NO	Pipe 90% full of sand, outlet needs dredging
92	11/18/15	NO	FAIR	UNOBSTRUCTED	NEEDS REMOVAL	NO	NO	NO	Pipe needs flushing
93	11/18/15	NO	EXCELLENT	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
94	12/03/15	NO	NEEDS MAINT.	SUBMERGED	NEEDS REMOVAL	NO	NO	NO	Partially submerged, mound of sand in channel needs removal
95	12/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
96	12/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
97	11/10/15	YES	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK - trickle flow
98	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
99	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
100	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK - needs clearing

## 2015 OUTFALL MAINTENANCE INSPECTION REPORT

### TOWN OF SMITHFIELD

OUTFALL	DATE	FLOWING?	OUTLET CONDITION	DISCHARGE CONDITIONS	SEDIMENT ACCUMULATION	SCOURING	TRASH	CAUSES FLOODING	COMMENTS
101	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
102	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
103	N/A								Does not exist
104	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
105	11/10/15	NO	NEEDS MAINT.	UNOBSTRUCTED	NEEDS REMOVAL	NO	NO	NO	Sediment plume needs removal
106	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Overgrown
107	11/19/15	YES	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK - trickle flow
108	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
109	11/19/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	IMPEDES DISCHARGE	YES	NO	NO	Pipe 1/2 full of sand & covered with yard waste - needs flushing
110	11/18/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK - CB needs marker
111	11/04/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	IMPEDES DISCHARGE	NO	NO	NO	Pipe 1/2 filled - needs flushing and dredging
112	11/04/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
113	11/10/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	IMPEDES DISCHARGE	MINIMAL	NO	NO	Pipe almost 1/2 filled - needs flushing
114	N/A								Does not exist
115	11/16/15	YES	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
116	11/17/15	NO	NEEDS MAINT.	UNOBSTRUCTED	NEEDS REMOVAL	NO	NO	NO	Pipe needs flushing
117	11/17/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
118	11/18/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	4" sand in pipe - needs flushing
119	12/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	OK
120	11/19/15	YES	POOR	SUBMERGED	MINIMAL	NO	NO	NO	Outlet channel needs dredging
121	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	YES	NO	OK, needs better access
122	11/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	YES	At DMH - outlet pipe undersized
123	11/03/15	NO	FAIR	UNOBSTRUCTED	NONE	MINIMAL	NO	NO	Wet pipe with no flow, some channel erosion
124	11/19/15	YES	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	Trickle, OK
125	11/19/15	YES	POOR	SUBMERGED	MINIMAL	NO	NO	NO	Outlet channel needs dredging
126	11/19/15	YES	POOR	SUBMERGED	MINIMAL	NO	NO	NO	Outlet channel needs dredging
127	11/19/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
128	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
129	11/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
130	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	MINIMAL	NO	NO	Some minor channel erosion
131	11/18/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
132	11/10/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK - well maintained
133	11/19/15	YES	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Trickle flow, OK
134	N/A								Does not exist
135	N/A								Does not exist
136	N/A								Does not exist
137	11/18/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 1/3 full, needs flushing
138	12/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	YES	NO	OK - trash from Rt 44
139	11/19/15	NO	NEEDS MAINT.	UNOBSTRUCTED	NONE	NO	NO	NO	Private outfall / needs access clearing & flushing
140	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
141	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Overgrown - needs mowing
142	11/05/15	UNKNOWN	NOT VISIBLE	COMPLETELY PLUGGED					Not found - needs flushing
143	11/05/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 1/2 filled with sand - needs flushing
144	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
145	11/05/15	YES	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Moderate flow - needs access clearing and pipe flushing
146	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Needs vegetation cleared for access
147	11/09/15	NO	EXCELLENT	UNOBSTRUCTED	MINIMAL	NO	NO	NO	6" PVC projecting
148	11/09/15	NO	FAIR	UNOBSTRUCTED	NONE	MINIMAL	NO	NO	OK
149	11/09/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
150	N/A								Does not exist

## 2015 OUTFALL MAINTENANCE INSPECTION REPORT

### TOWN OF SMITHFIELD

OUTFALL	DATE	FLOWING?	OUTLET CONDITION	DISCHARGE CONDITIONS	SEDIMENT ACCUMULATION	SCOURING	TRASH	CAUSES FLOODING	COMMENTS
151	11/17/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
152	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
153	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Extremely steep, poor access
154	11/05/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	OK
155	11/16/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 1/3 full of sand - needs flushing
156	11/18/15	NO	FAIR	UNOBSTRUCTED	NEEDS REMOVAL	NO	NO	NO	Pipe needs flushing
157	11/18/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NONE	NO	NO	NO	Pipe 1/2 submerged, needs vegetative clearing and fence gate
158	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
159	11/17/15	NO	NEEDS MAINT.	UNOBSTRUCTED	NONE	NO	NO	NO	Heavily overgrown - access needs clearing
160	PRIVATE DRAINAGE SYSTEM								Private outfall
161	PRIVATE DRAINAGE SYSTEM								Private outfall
162	11/03/15	NO	FAIR	SUBMERGED	MINIMAL	NO	NO	NO	1/2 submerged
163	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
164	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Tree at flared end should be removed
165	11/19/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 1/3 full - Needs flushing and dredging
166	11/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
167	11/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Pipe 1/4 full - Needs flushing
168	11/13/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 1/2 full, needs flushing and dredging
169	11/13/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	IMPEDES DISCHARGE	NO	NO	NO	Pipe needs flushing and dredging
170	11/13/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Dredging needed, pipe half full of sand - needs flushing
171	11/13/15	NO	NEEDS MAINT.	SUBMERGED	MINIMAL	NO	NO	NO	Needs dredging
172	11/13/15	YES	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK, trickle
173	11/13/15	YES	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK, trickle
174	11/13/15	YES	FAIR	PARTIALLY BLOCKED	IMPEDES DISCHARGE	NO	NO	NO	Vegetative obstruction inside outfall, needs flushing
175	11/13/15	YES	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Min. sand in channel, trickle
176	11/13/15	YES	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Dredging needed, pipe half full of sand - needs flushing
177	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
178	11/13/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
179	11/17/15	NO	NEEDS MAINT.	UNOBSTRUCTED	NONE	NO	NO	NO	Overgrown, yard waste and cut trees dumped in easement
180	11/16/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Pipe recently flushed
181	11/17/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe partially filled - needs flushing
182	11/18/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
183	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	Minor channel erosion
184	11/03/15	NO	FAIR	UNOBSTRUCTED	NEEDS REMOVAL	YES	NO	NO	Pipe may be undersized, needs riprap, CB recently cleaned
185	11/04/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	YES	NO	NO	Recently repaired, needs some stabilization
186	11/10/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
187	12/03/15	YES	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	YES	NO	Sand and trash in channel, poor access for maintenance
188	12/03/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Channel needs dredging and pipe 1/2 full - needs flushing
189	12/03/15	NO	EXCELLENT	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
190	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
191	11/04/14	NO	FAIR	UNOBSTRUCTED	NONE	MINIMAL	NO	NO	New wall at outfall?
192	11/04/14	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
193	N/A								
194	11/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
195	11/04/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
196	11/10/15	NO	NEEDS MAINT.	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Pipe joint compromised
197	11/10/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	IMPEDES DISCHARGE	NO	NO	NO	Needs flushing and dredging
198	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK - steep embankment at outfall
199	NOT FOUND		NOT VISIBLE						Possible yard waste and fill covering outlet, not active
200	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK

## 2015 OUTFALL MAINTENANCE INSPECTION REPORT

### TOWN OF SMITHFIELD

OUTFALL	DATE	FLOWING?	OUTLET CONDITION	DISCHARGE CONDITIONS	SEDIMENT ACCUMULATION	SCOURING	TRASH	CAUSES FLOODING	COMMENTS
201	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
202	11/10/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	IMPEDES DISCHARGE	MINIMAL	NO	NO	Pipe 1/3 filled - needs flushing, pipe joint separation
203	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
204	11/19/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
205	11/10/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	MINIMAL	NO	NO	NO	1/2 full of leaves
206	11/10/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	3" sediment in bottom of pipe - needs flushing and dredging
207	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
208	11/16/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	MINIMAL	NO	NO	Pipe 1/2 full of sand - needs flushing, some channel erosion
209	11/13/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
210	11/16/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 2/3 full of sand - needs dredging and flushing
211	11/13/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NONE	NO	NO	NO	Ditch 1/2 full of leaves
212	12/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Some sand in wetlands, no access available for maintenance
213	12/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
214	12/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	OK
215	12/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
216	12/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
217	12/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
218	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
219	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Overgrown
220	11/03/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	IMPEDES DISCHARGE	NO	NO	NO	Channel needs dredging
221	11/19/15	NO	NEEDS MAINT.	UNOBSTRUCTED	NONE	NO	NO	NO	Needs pipe section repair
222	11/19/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Access recently cleared, slightly submerged
223	11/19/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
224	11/19/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	YES	NO	Garbage inside drywell
225	11/19/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
226	11/10/15	YES	FAIR	UNOBSTRUCTED	MINIMAL	MINIMAL	NO	NO	Trickle flow - partially submerged
227	11/10/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	OK, some sand in flared sand section
228	11/10/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
229	11/10/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	4" sediment in bottom of pipe - needs flushing and dredging
230	12/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
231	12/03/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	MINIMAL	NO	NO	NO	Notified owner to remove riprap obstruction
232	11/05/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe needs flushing
233	11/05/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
234	11/05/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK
235	12/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK, green pipe staining
236	PRIVATE DRAINAGE SYSTEM								Private Outfall
237	11/16/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 1/2 full - needs flushing
238	11/05/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Small amount of sand in channel
239	11/18/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
240	11/18/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Needs dredging at outfall
241	11/19/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	OK
242	11/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	OK - maintained
243	11/03/15	NO	FAIR	UNOBSTRUCTED	NONE	NO	NO	NO	Flushed and found in 2014, not accessible
244	12/03/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe needs flushing
245	11/03/15	NO	FAIR	UNOBSTRUCTED	MINIMAL	NO	NO	NO	Recently flushed and cleaned
246	11/18/15	NO	FAIR	SUBMERGED	NONE	NO	NO	NO	Surcharged outfall OK
247	11/18/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
248	11/18/15	NO	EXCELLENT	UNOBSTRUCTED	NONE	NO	NO	NO	OK
249	11/18/15	NO	NEEDS MAINT.	PARTIALLY BLOCKED	NEEDS REMOVAL	NO	NO	NO	Pipe 1/2 full of sand - needs flushing
250	N/A								

