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## RIPDES SMALL MS4 ANNUAL REPORT GENERAL INFORMATION PAGE

RIPDES PERMIT #RIR040 \_\_\_\_\_

REPORTING PERIOD:  **YEAR 10**  
Jan 2013-Dec 2013

### OPERATOR OF MS4

Name: Rhode Island Department of Transportation			
Mailing Address: 2 Capitol Hill			
City: Providence	State: RI	Zip: 02903	Phone: ( 401 )222-2023
Contact Person: Peter Healey, P.E.	Title: Chief Civil Engineer		
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Legal status (circle one):			
PRI - Private	PUB - Public	BPP - Public/Private	<b>STA - State</b>
FED - Federal			
Other (please specify):			

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

Name:			
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 Michael P. Lewis, P.E.

Print Title Director

Signature \_\_\_\_\_ Date \_\_\_\_\_





**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.)**

IV.B.1.b.1	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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**BMP ID 1A, B – URI AGREEMENT**

The Rhode Island Department of Transportation’s (RIDOT) Natural Resources Unit (NRU) was responsible for partnering with Rhode Island Department of Environmental Management (RIDEM) and the University of Rhode Island (URI), through their Nonpoint Education for Municipal Officials (NEMO) Program at the Cooperative Extension of the College of the Environment and Life Sciences, to provide training to State and Municipal officials, and to create a coordinated statewide public outreach message. The target audience consists of State and Municipal officials, watershed groups, residents, and RIDOT personnel. The RIDOT/RIDEM/URI Agreement was signed in February 2006, and continued through December, 2011. URI continued to provide services to RIDOT in Years 9 and 10 through a no-cost extension to the original agreement.

As a partner in the program, RIDEM has an original copy of the RIDOT/RIDEM/URI Agreement and has approved all Contract extensions. In Year 10, URI continued to provide support through limited public education activities, maintenance of the project website, and responding to requests for information from the public.

In 2013, URI completed a major reorganization of the “*RI Stormwater Solutions*” website at [www.ristormwatersolutions.org](http://www.ristormwatersolutions.org). Launched in July, the new site features improved navigation, new materials, and an updated design.

There was a continuation of updates to, and expand of, the on-line inventory of Low Impact Development (LID) stormwater management practices, housed at: <http://web.uri.edu/riss/lid/lid-inventory/>. In addition, this database was reformatted to allow for easier sorting of LID projects.

Through the NEMO Program, URI continued to coordinate with RIDEM, RIDIOT, other agencies and non-profit organizations on stormwater education and outreach activities targeting municipalities, and continued to respond to requests for use of the “*RI Stormwater Solutions*” education materials.

A detailed summary of URI work has been provided. [\[ATTACHMENT 1A\]](#)

Throughout 2013, RIDOT, RIDEM, and URI continued to work on drafting a new Agreement between these entities, which provides measurable goals, and a five year timeline, and a budget for implementation. The Agreement was finalized and signed by all parties in June 2014. The Agreement is structured so as to be funded for one (1) year, with the ability to extend the term to a total of five (5) years, pending funding availability. This Agreement is anticipated to constitute full compliance with Minimum Measure 1 of both the current and the next RIPDES General Permit during the term of the Agreement. [\[ATTACHMENT 1B\]](#)

**RESPONSIBLE PARTIES** - The University of Rhode Island is the primary entity responsible for the implementation of RIDOT’s Public Education and Outreach Program with significant support & coordination from the RIDOT Natural Resources Unit and RIDEM.

**EFFECTIVENESS** - It is felt that this Minimum Measure work has been extremely effective. Both Municipal officials and RIDOT personnel have received effective, appropriate, and useful training through this initiative. URI NEMO has continued to provide very high quality training with support from RIDEM, RIDOT, and the URI Technology Transfer (T2) Center.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT executed a new contract with URI and RIDEM in June, 2014. URI NEMO will manage the training of the newly revised Rhode Island Soil Erosion and Sediment Control Handbook (RISESCH); continue development of a Linear LID Stormwater Design Manual; continue to provide stormwater training to Municipal and RIDOT staff; provide TMDL-specific trainings as needed; and provide children's public education relating to stormwater topics. RIDEM is an involved partner in this Agreement and has had an active role in developing it. A scope of work has been developed, and is included in the new Agreement. **[ATTACHMENT 1B]**

IV.B.1.b.2	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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URI has provided an annual report and assessment to RIDOT & RIDEM, which provides the measurable goals set and agreed upon by RIDOT, RIDEM, and URI in the contract agreement, and the success towards each. **[ATTACHMENT 1A]**

Additional Measurable Goals and Activities: Please indicate if the following training sessions were attended and list the name(s) and municipal position of all staff who attended the training.

Attendance at the following trainings if applicable:

**Doing More With Less: The Benefits of Stormwater Regionalization Within Your Watershed** (September 30, 2013)

Attending name of staff and title: Aleksandra Uniejewska, MMAP Intern

Other Trainings:

RIFMA: Community Resiliency After Sandy – A Coastal No Adverse Impact Approach Workshop  
3/15/13 - E. Holland attended

NBEER: RI Transfer of Development Rights Mini-Conference  
3/27/13 – E. Holland attended

FHWA/USGS: Stochastic Empirical Loading Dilution Model Training  
9/18 – 9/19/13 – E. Holland attended

ICEA –Northeast Chapter Annual Conference  
11/19-11/21/13 – E. Holland, M. Dahlquist, and E. Johnstone attended

**Construction Winter Training 2013:**

**Environmental Compliance on RIDOT Construction Sites**  
January 29, February 6 & 13

Allison Hamel, Environmental Scientist - RIDOT Natural Resources Unit – presented  
RIDOT Construction Personnel attended (Resident Engineers, Inspectors, Staff)

**Maintenance Training 2013:**

**TRAIN-THE-TRAINER**

**Facility Stormwater Pollution Prevention Plans (SWPPPs)  
Spill Prevention, Control, & Countermeasure Plans (SPCCs)  
Universal Waste, Right-To-Know & Material Safety Data Sheets**

January 14, 2013 – at Gloucester Facility

June 27, 2013 – at Maintenance HQ

Allison Hamel, Environmental Scientist - RIDOT Natural Resources Unit – presented  
Maintenance Facility Superintendents attended

Superintendents provided training to Facility Personnel. Information relating to the facility training sessions which was available at the time this report was completed is as follows:

Midstate – 9 Aug 2013

Hope Valley - multiple dates in 2013

Portsmouth – 6 August 2013

Headquarters –27 June 2013

Gloucester – 13 Aug 2013

Belleville – 8 Aug 2013

Smithfield – September 2013

**Professional Development:**

In 2012, RIDOT established an Office of Professional Development and Training to coordinate, develop, implement, and monitor RIDOT's staff development and training programs. The Office of Professional Development and Training is committed to help meet RIDOT's professional development needs and will continue to strive to offer learning opportunities and schedule training according to demand. All future RIDOT training will be coordinated through this new Office, offering better record keeping and development of required training. [\[ATTACHMENT 1C\]](#)

**RESPONSIBLE PARTIES** - The University of Rhode Island is the primary entity responsible for the implementation of RIDOT's Public Education and Outreach Program with significant support & coordination from the RIDOT Natural Resources Unit and RIDEM.

The Natural Resources Unit is the primary RIDOT entity responsible for the implementation of storm water management training within the RIDOT Construction Winter Training program and the RIDOT Maintenance Summer Training program; support from RIDOT Design, Construction, and Maintenance are also provided as needed. Going forward, the Natural Resources Unit will coordinate with the new Office of Professional Development and Training for environmental and stormwater training of RIDOT staff.

**EFFECTIVENESS** - It is felt that this Minimum Measure work has been extremely effective. Both municipal officials and RIDOT personnel have received effective, appropriate, and useful training through this initiative.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT executed a new contract with URI and RIDEM, in June, 2014. URI NEMO will manage the training of the newly revised Rhode Island Soil Erosion and Sediment Control Handbook (RISESCH); continue development of a Linear LID Stormwater Design Manual; continue to provide stormwater training to Municipal and RIDOT staff; provide TMDL-specific trainings as needed; and provide children's public education relating to stormwater topics. RIDEM is an involved partner in this Agreement and has had an active role in developing it. A scope of work has been developed, and is included in the new Agreement. [\[ATTACHMENT 1B\]](#)

The RIDOT Natural Resources Unit will continue to provide stormwater education to RIDOT Construction, Maintenance, and Design personnel. RIDOT NRU will also continue to aid RIDEM and other State Agencies in stormwater education.

RIDOT has established an Office of Professional Development and Training to coordinate, develop, implement, and monitor RIDOT's staff development and training programs. The Office of Professional Development and Training is committed to help meet RIDOT's professional development needs and will continue to strive to offer learning opportunities and schedule training according to demand.

The Natural Resources Unit has been coordinating with the Chief of the Office of Professional Development and Training to provide stormwater and environmental training to all of RIDOT staff through a "RIDOT 101" Training series which every existing and new RIDOT employee will be required to attend. Additional job-specific stormwater & environmental training will be provided through the "RIDOT 201" training series. It is anticipated that these training series will be developed over the next two to four years.

**BMP ID 1C – RIDOT STORMWATER PROGRAM WEBSITE**

RIDOT has continued to maintain the Stormwater Program web page on the RIDOT website at: <http://www.dot.ri.gov/programs/stormwater/index.asp>. RIDOT does not regularly update this website because the URI NEMO program launched the "Know Where It Goes" website at: [www.ristormwatersolutions.org](http://www.ristormwatersolutions.org) as part of the RIDOT/RIDEM/URI Agreement. This website is updated regularly with training and resources. Additionally, "RI Stormwater Solutions" has been added to the US Environmental Protection Agency's "Soak up the Rain" campaign and website at: <http://www.epa.gov/region1/soakuptherain/learnmore.html>

**RESPONSIBLE PARTIES** - The RIDOT Office of Communications, working with support from the Natural Resources Unit, is the primary RIDOT entity responsible for the updating of the RIDOT Stormwater Program web page. The University of Rhode Island NEMO is the primary entity responsible for the updating of the "Know Where It Goes" web site.

**EFFECTIVENESS** - It is felt that this Minimum Measure is an effective tool to provide general information about storm water issues.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT is involved in a complete redesign of the Department's website, including the Stormwater Program web page. The primary on-line resource for Public Education and Outreach information will continue to be the "Know Where It Goes" website. The new RIDOT/RIDEM/URI Agreement will continue to provide funding for staff time for regular website maintenance.





## 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.)**

IV.B.2.b.2.ii

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.

**BMP ID 2B – PUBLIC INVOLVEMENT**

The RIDOT Natural Resources Unit (NRU) was responsible for partnering with RIDEM and URI, through their NEMO Program at the Cooperative Extension of the College of the Environment and Life Sciences, to provide a coordinated, statewide public outreach and involvement program. The target audience consists of State and Municipal officials, environmental & watershed groups, residents, and educational organizations. The RIDOT/RIDEM/URI Agreement was signed in February 2006, and continued through December, 2011. URI continued to provide services to RIDOT in Years 9 and 10 through a no-cost extension to the original agreement. Please See BMP ID 1A, B under Section IV.B.1.b.1.

As a partner in the program, RIDEM has an original copy of the RIDOT/RIDEM/URI Agreement and has approved all Contract extensions. In Year 10, URI continued to provide support through limited public education activities, maintenance of the project website, and responding to requests for information from the public.

A detailed summary of URI work has been provided. **[ATTACHMENT 1A]**

Throughout 2013, RIDOT, RIDEM, and URI continued to work on drafting a new Agreement between these entities, which provides measurable goals, and a five year timeline, and a budget for implementation. The Agreement was finalized and signed by all parties in June 2014. The Agreement is structured so as to be funded for one (1) year, with the ability to extend the term to a total of five (5) years, pending funding availability. This Agreement is anticipated to constitute full compliance with Minimum Measure 2 of both the current and the next RIPDES General Permit, with exception of the requirement for Public Notice of the Annual Report, during the term of the Agreement. **[ATTACHMENT 1B]**

**RESPONSIBLE PARTIES** - The University of Rhode Island is the primary entity responsible for the implementation of RIDOT's Public Education and Outreach Program with significant support & coordination from the RIDOT Natural Resources Unit and RIDEM

**EFFECTIVENESS** - It is felt that this Minimum Measure work has been extremely effective. Municipal officials, RIDOT personnel, and the general public have been given the opportunity to provide their input and insight on RIPDES requirements. URI NEMO has continued to provide very high quality training with support from both DEM and DOT and the URI T2 Center.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT executed a new contract with URI NEMO and RIDEM, in June 2014. Currently, it is anticipated that URI NEMO will manage the update of the newly revised Erosion and Sediment Control Handbook; continue development of a Linear LID Stormwater Design Manual; continue to provide municipal and RIDOT staff stormwater training; provide TMDL-specific trainings; and provide children's public education of stormwater topics. RIDEM is an involved partner in this Agreement and has an active role in developing the next Agreement. A scope of tasks has been developed, and is included in the new agreement. **[ATTACHMENT 1B]**

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Additional Measurable Goals and Activities:

The RIDOT Stormwater Program Coordinator position has been vacant, due to employee leave, since July 2013. Prior to this time, the RIDOT Stormwater Program Coordinator participated in several State-wide Stormwater Management initiatives. Where possible, RIDOT has utilized remaining staff resources to continue participation in these initiatives:

**Watershed Counts** <http://watershedcounts.org/>

Watershed Counts is a broad coalition of agencies and organizations, including RIDOT, that have committed to work together to examine and report regularly on the condition of the land and water resources of the Narragansett Bay Watershed Region. The coalition's first report (2011) featured information on five key indicators (climate change, impervious cover, beach closures, fresh water flow and invasive species). In 2012, indicators were added for marine water quality, freshwater quality, open space and resource economics. These indicators will be used to describe the condition of the watershed region and then to communicate this information to the public and decision makers in order to inform and guide



future management and development of the watershed. The indicators consider the region's interwoven economic and environmental assets. More information may be found at: <http://www.watershedcounts.org/>. "Watershed Counts" reports the 'report card' to the Legislators on Earth Day each year.

A. Hamel – Agency Partner 1/2013 to 6/2013

**Roger William Park Ponds Restoration Steering Committee** <http://nbep.org/rwppondsrestoration.html>

Roger Williams Park is Providence's most important greenspace, with more than a million visitors each year. The centerpiece of the park is a network of urban ponds--100 acres of fresh water valued for fishing, boating, and the scenic beauty they provide. The ponds, however, are polluted by urban runoff from nearby roads, shoreline erosion, waterfowl and other sources. NBEP is working with the City of Providence and a steering committee of stakeholders and technical experts, including RIDOT, to begin restoring the ponds through innovative stormwater management and the development of a restoration master plan to guide the two-year project.

This commitment addresses TMDL requirements listed in the Total Maximum Daily Loads for Phosphorus To Address 9 Eutrophic Ponds in Rhode Island. RIDOT tried to incorporate two of the suggested BMPs in to ongoing contracts, but scheduling and other commitments did not allow for the BMPs to be installed.

A. Hamel – Steering Committee Member 1/2013 – 6/2013

**Providence “After The Storm”**

A series of workshops was held in 2012 & 2013 to discuss developing a regional solution to the regional problem of stormwater management. This effort brought together top municipal elected officials and managers, Public Works Directors and Planning Directors in the communities at the head of Narragansett Bay, as well as Narragansett Bay Commission, RIDOT, and other non-traditional MS4's. Building on the workshops that the Department of Environmental Management sponsored, a multi-phase study was initiated to examine the potential for the development of a stormwater utility district as a potential strategy to address the currently under-funded efforts to manage stormwater.

A. Hamel/E. Holland attended

**Erosion and Sediment Control Handbook – Technical Review Committee**

The TRC is a group of professionals from State agencies, including RIDOT, and private industry that have developed an updated to the 1989 Rhode Island Soil Erosion and Sediment Control Handbook (original version completed by the Rhode Island Department of Environmental Management, USDA Soil Conservation Service, and Rhode Island State Conservation Committee (SCC)). The goals of this effort were to develop an updated Rhode Island Soil Erosion and Sediment Control Handbook that:

- Meets the needs of RI's practitioners
- Contains the most up-to-date technical information on BMPs
- Contains up-to-date information on the regulatory and implementation processes relating to erosion control
- Is consistent with the 2010 Rhode Island Stormwater Design and Installation Standards Manual
- Is easy to use and understand
- Is internally consistent in terms of level of detail, utility of illustrations, and applicability to RI

A. Hamel – TRC Member 1/2013 – 6/2013; RIDOT – Reviewing Agency

E. Holland – TRC Member 7/2013 to 12/2013; RIDOT – Reviewing Agency

**Excellence in Bay Management**

The Goals 1) Address regularly expressed concerns about lack of satisfactory progress on major issues that are addressed by mandate or mission by a range of agencies, NGOs, etc. 2) Facilitate a neutral, wide-ranging conversation – within the predetermined parameters – that examines the interaction, communication and consistency between and among various agencies and organizations. 3) Make the best use of the talents and resources available both in the planning and execution of agreed upon action steps.

The Outcomes: 1) Identify overlaps or gaps in addressing selected issue(s). 2) Decrease the frustration exhibited and/or expressed by dedicated professionals. 3) Increase morale and public recognition of value added. 4) Identify ways to provide people with a greater sense of accomplishment.

A. Hamel – Attended 1/2013-6/2013

**Municipal Mapping Assistance Program (MMAP)**

RIDOT assisted RIDEM in developing the MMAP program in 2012. This program is intended to advance the GPS/GIS mapping capabilities of Municipalities in support of RIPDES compliance efforts.

**In 2013, this program focused on assisting North Providence to advance their GPS/GIS mapping capabilities in support of RIPDES compliance efforts. RIDOT provided training, technical assistance, maintenance of catch basins, and intern field work for the project. During 2013, a total of 366 catch basins, 107 manholes, and over 9 miles of pipe were mapped, measured, and photographed, and added to RIDEM's database. The majority of the priority outfall catchment areas within the Town of North Providence have been mapped. [ATTACHMENT 2A]**

**RESPONSIBLE PARTIES** - The RIDOT Natural Resources Unit is the primary responsible party

**EFFECTIVENESS** - It is felt that this Minimum Measure work has been effective. RIDOT attends, presents, and offers technical expertise to many local and state-wide initiatives.

**YEAR 11 (2014) EXPECTED ACTIONS**

Continue statewide coordination

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**BMP ID 2A – ADOPT-A-HIGHWAY PROGRAM**

The Maintenance Division has continued supporting both the Adopt-a-Highway and the Sponsor-a-Highway programs.

The Adopt-A-Highway Program (AAH) is geared for non-profit, volunteer groups such as environmental groups, students, boy/girl scouts and civic minded businesses. RIDOT Maintenance provides advanced warning signs, safety vests, litter picks and trash bags. RIDOT Maintenance Division also fabricates and installs signs for this program (small signs are free to not-for-profit organizations; larger signs are a charge). The Sponsor is responsible to do a minimum of 4 cleanups per year. The segments in the AAH Program are on secondary roads (no high speed routes or interstates).

**In 2013, the Adopt A Highway program continued, however no report of the total amount of trash collected through this program was available at the time this report was completed.**

The Sponsor-A-Highway Program (SAH) is geared toward businesses and there are currently two companies that the Department does business with, Adopt-A-Highway Maintenance Corporation (AAHMC) and Adopt-A-Highway Litter Removal Service of America, Inc. (AAHLRSA). AAHMC and AAHLRSA are both based out of California and they are active in many states. They both charge a monthly fee to each Sponsor for the sign panel (*Catch the Wave- Ride with Pride*) and they are obligated to clean each segment 19 times per year. There is a set schedule for each company to follow and the cleanups take place on Mondays throughout the year. All companies send electronic cleanup reports.

**In 2013, the Sponsor-A-Highway program had 22 Sponsor Segments, and a total of 15 Sponsors. Through this program, over 650 bags of trash were picked up by two companies.**

**Adopt-A-Highway Maintenance Corporation.**

The total miles cleaned - 482 in 2013  
Bags of litter monthly and annually – 93 (monthly Average – 2013).  
Total bags for 2013 were 837.  
This company has 14 Sponsor Segments

**Adopt-A-Highway Litter Removal service of America, Inc.**

Total miles cleaned - 128 miles in 2013.  
Bags of litter pick-up – 174 bags for 2013  
This company has 8 Sponsor Segments

**RESPONSIBLE PARTIES** - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT Natural Resources Unit is provided as needed.

**EFFECTIVENESS** - RIDOT considers this BMP very effective in both public involvement and the reduction of floatables/trash along RIDOT roadways.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT Maintenance will continue this BMP

#### **BMP ID 2C – PRISON CREW CLEANUPS**

The Maintenance Division has continued funding prison crew cleanups along RIDOT roadways.

**In 2013, RIDOT paid \$592,510 for prison crews and picked up 61, 958 bags of litter.**

**RESPONSIBLE PARTIES** - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT Natural Resources Unit is provided as needed.

**EFFECTIVENESS** - RIDOT considers this BMP very effective in both public involvement and the reduction of floatables/trash along RIDOT roadways.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this BMP

#### **BMP ID 2E – ENHANCEMENT PROGRAM**

The recently adopted transportation bill - Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) - created the Transportation Alternatives (TA) Program, which combines the Transportation Enhancement Program with two other popular, non-traditional transportation programs; Safe Routes to School and the Recreational Trails Program.

The TA Program provides funding for activities that include:

- On road/off road pedestrian and bicycle facilities;
- Infrastructure projects to improve/enhance non-driver mobility;
- Community improvement programs;
- Environmental mitigation;
- Recreational trails projects; and
- Safe Routes to School

The legacy projects in the former Transportation Enhancement Program are being implemented with funding left over from previous transportation funding efforts and MAP-21. These projects were selected and recommended by RIDOT's Transportation Enhancement Advisory Committee (TEAC), which conducted a thorough solicitation, outreach, and proposal evaluation process.

All enhancement projects listed in the TIP are initiated through the development of a project agreement with the sponsor and/or the commencing of the design process. The funds to be allocated for each project as well as the year of anticipated implementation is available at <http://www.planning.state.ri.us/transportation/>. The implementation schedule is based on the information available to RIDOT and is subject to change. To expedite program implementation, RIDOT is given flexibility in advancing projects within the annual Enhancement budget when other projects are delayed.

**In 2013, 2 projects were advanced to construction; 2 projects were completed, 16 projects are currently in design with 5 of those in the final stages of design. The Enhancement Program has required the inclusion of the RIDOT Small-Site Stormwater Pollution Prevention Plan for active construction sites as part of their process.**

**RESPONSIBLE PARTIES** - RIDOT Intermodal Planning Division is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT Natural Resources Unit is provided as needed.

**EFFECTIVENESS** - RIDOT does not consider this BMP measure effective. RIDOT has limited control over what projects are submitted for Enhancement Program funding, and therefore cannot be held accountable for the lack of stormwater-related projects.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue to evaluate more suitable goals for this Program for the next RIPDES General Permit. The RIDOT Enhancement Program continues to evaluate the possibility of developing a "Low Impact Development Demonstration Project" that could fund the incorporation of more LID practices in the traditional submissions of Enhancement projects. The Enhancement Program and the NRU plan to evaluate the possibility of prioritizing LID inclusion to areas of significant environmental concern (the State's Impaired/TMDL waters and Special Resource Protection Waters).

**SECTION II. Public Notice Information (Parts IV.G.2.h and IV.G.2.i)**

Date of Public Notice: 9 May 2014	How public was notified: Advertisement in Providence Journal, and through the RIDOT Website
Was public meeting held? YES <u>NO</u>	Date: _____ Where: _____
Summary of public comments received: No Comments Received	
Planned responses or changes to the program: No planned responses or changes	



**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.)**

IV.B.3.b.1:	Indicate if the outfall map was not completed, 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.)  <b>Date of Completion: 2010</b>
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**BMP ID 3A, 3B – OUTFALL MAPPING, GIS DATABASE**

**This measurable goal was completed in 2010.** RIDOT required additional time to map its entire state-wide system. The Natural Resources Unit Summer Interns, supported by the MIS Office, inventoried outfalls through plan research and field data collection using GPS. To date, RIDOT has 3811 outfalls and associated photos in the GIS database. RIDOT NRU continues to use Summer Interns to verify and update the outfall database.

**RESPONSIBLE PARTIES** - The Natural Resources Unit is the primary RIDOT entity responsible for the implementation of this BMP; support from RIDOT Design, Construction, Maintenance, and MIS/GIS are also provided as needed.

**EFFECTIVENESS** - RIDOT has mapped its entire outfall system – not just within the regulated areas. This has taken longer than the Permit allowance; however RIDOT felt that it was an acceptable alternative to achieve state-wide outfall coverage.

**YEAR 11 (2014) EXPECTED ACTIONS** - (Continued from Year 8) RIDOT is developing a policy to have newly constructed outfall geographical locations provided by design consultants to maintain the database in an as up-to-date as possible condition. The Natural Resources Unit updates as needed, or as new information is available.

IV.B.3.b.2	Indicate if your municipality chose to implement the tagging of outfalls activity under the IDDE minimum measure, activities and actions undertaken under the 2013 calendar year.
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**N/A** – RIDOT used GPS/GIS to develop outfall map

IV.B.3.b.3	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.
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**BMP ID 3C – RECORDING OF ADDITIONAL ELEMENTS**

Catch Basins along major interstate highways, limited-access roads, and primary routes have been mapped. Additional work to complete mapping on ramps and secondary roads is planned as funding and staff time allows. At this time, this is a geographical inventory of catch basins with limited information.

As illicit discharges are investigated, additional elements are recorded as necessary to aid in the tracing, sourcing, and removal of the illicit connection. The Natural Resources Unit developed an IDDE plan which details the procedure for locating additional elements (catch basins, man holes, etc.), recording pertinent information about them, and amending mapping to depict these features. The IDDE Plan was submitted to RIDEM with the 2006 Annual Report. To date, IDDE investigations have not required extensive mapping; field investigations using existing plan sets have been sufficient to conclude the investigations.

Additionally, all construction projects have engineering plans electronically submitted to RIDOT, and this information is available to aid in investigations.

In 2011, the Natural Resource Unit's summer interns initiated drainage catchment analysis in the Woonasquatucket Watershed. The interns completed the catch basin inventory in the watershed in 2012. Outfalls had previously been identified and inspected in the watershed; through field work, interns verified the outfalls and began to map the drainage pipe connectivity to the outfalls.

**In 2013, the Natural Resource Unit's summer interns worked with RIDEM interns to continue implementation of the *Municipal Mapping Assistance Program (MMAP)*. In 2013, the MMAP interns mapped the catchment of the Woonasquatucket TMDL priority outfalls with the town of North Providence. [\[ATTACHMENT 2A\]](#)**

In 2011, the RIDOT Maintenance Division purchased the VueWorks Asset Management software system. This product is intended to provide the basis of a systematic approach to the mapping of additional elements (see Minimum Measure 6 for further information). This system is currently being implemented in the Maintenance Division. This system will enable RIDOT to accurately report Maintenance activity.

**In 2013, the RIDOT Maintenance Division continued to configure the VueWorks Asset Management System. Drainage system structures continue to be a priority focus.**

In 2011, the Design Section initiated contract development for Drainage System Inspection and Cleaning Program. **In 2013 a pilot project including newly developed specifications to clean/inspect/repair the drainage system received funding through the RICAP program, and was advertised for construction. This work within the I-295 corridor was initiated in 2013. As part of the 'inspection' of catch basins, GPS coordinates and connecting pipes and outfall information will be documented. It is anticipated that the I-295 contract will be used as a template for future construction projects, where appropriate, and that these specifications will be routinely utilized by the RIDOT Design Section, overseen by the Construction Division, and that the resulting data will be made available to the Maintenance Division. This program will fulfill the requirement for mapping and inspections of "additional elements."**

**RESPONSIBLE PARTIES** - The Natural Resources Unit, the MIS/GIS Office, Design, Construction, and the Maintenance Division are the primary RIDOT entities responsible for the implementation of this BMP.

**EFFECTIVENESS** - Mapping system elements as part of IDDE investigations, new construction projects, or catch basin inspection/maintenance has not been effective for RIDOT due to the size and complexity of the RIDOT drainage system.

Mapping small portions of the drainage system (i.e. during an IDDE investigation where typically less than 10 manholes/catchbasins and connecting pipes would require mapping) is a very inefficient and time-consuming process for an insignificant data set. RIDOT has had less than 5 IDDE investigations per year, and the state-wide drainage system is estimated at over 25,000 catch basins. Developing and maintaining such a small dataset is not practical for RIDOT. A broader, systematic approach to mapping the state-wide system in a discrete time-period is required.

RIDOT will continue mapping of additional elements during TMDL investigations, however, as this dataset is considered to be of significant environmental importance. This has been completed in the Greenwich Bay TMDL area as part of RIDOT's Stormdrain Retrofit Demonstration Project, and in both the Easton's Beach and Scarborough Beach areas as part of the Priority Beach projects.

It is anticipated that once the preventative maintenance program for drainage system cleaning, inspection, and repair is active, it will be an effective tool for drainage system cleaning, inspection, & mapping. Please see Minimum Measure 6 for more information.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT Maintenance is currently implementing an Asset Management System (please see Minimum Measure 6). It is anticipated that the initial rollout of this system will be complete by the end of 2014. RIDOT will continue to develop a policy to have newly constructed outfall/catch basin/stormwater structure geographical locations provided by design consultants to maintain the database in as up-to-date a manner as possible.

RIDOT will continue to develop and implement a Preventative Drainage System Maintenance Program through Design/Construction contracts. RIDOT NRU summer interns will continue catchment mapping and analysis in Priority Watersheds, as identified through the RIDEM MMAP Program, described in Minimum Measure 2

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> If the Ordinance was amended in 2013, please indicate why changes were necessary.</p>
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**N/A** – RIDOT does not have regulatory authority to develop and implement ordinances.

IV.B.3.b.5.ii, iii, iv, & v	<p>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>
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**BMP ID 3D – DEVELOP & IMPLEMENT IDDE PLAN**

RIDOT developed an IDDE program during 2006 that addresses the SOP requirements under the General Permit. The RIDOT IDDE Program and Manual were developed using the New England Interstate Water Pollution Control Commission's *Illicit Discharge Detection and Elimination Manual – A Handbook for Municipalities* (January 2003), the Center for Watershed Protection's *Illicit Discharge Detection and Elimination – A Guidance Manual for Program Development and Technical Assessments* (October 2004), as well as RIDEM IDDE workshop materials (December 2004). The IDDE Manual was modified to reflect RIDOT organizational structure and procedures.

RIDOT received an informal response from RIDEM regarding the IDDE Plan in 2010. RIDOT's Plan will require further development to be in compliance with RIDEM. RIDOT wishes to work with RIDEM to develop an acceptable plan, and will submit a new plan when completed.

**RESPONSIBLE PARTIES** - The Natural Resources Unit is the primary RIDOT entity responsible for the implementation of this plan; support from RIDOT Design, Construction, and Maintenance are also provided as needed.

**EFFECTIVENESS** - RIDOT considers the IDDE plan an effective guidance document; however RIDOT has had few IDDE investigation requirements.

**YEAR 11 (2014) EXPECTED ACTIONS** - (continued from Year 8) RIDOT wishes to work with RIDEM and develop a compliant IDDE plan that can be fully implemented in RIDOT and also provided to other MS4s as a template – similar to the Construction Site SESC Plans and Maintenance Facility Plans.

IV.B.3.b.5.vi

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.

In 2011, the Natural Resource Unit's summer interns initiated drainage catchment analysis in the Woonasquatucket Watershed. The interns completed the catch basin inventory in the watershed. Outfalls had previously been identified and inspected in the watershed; through field work, interns verified the outfalls and began to map the drainage pipe connectivity to the outfalls. In 2012, the Natural Resource Unit's summer interns worked with RIDEM interns to develop the *Municipal Mapping Assistance Program* (MMAP). In 2012, the MMAP interns mapped the catchment of the Woonasquatucket TMDL priority outfalls S1 and S2 with the towns of Johnston and Smithfield.

**In 2013, the Natural Resource Unit's summer interns worked with RIDEM interns to map the catchment of the Woonasquatucket TMDL priority outfalls in North Providence. [ATTACHMENT 2A]**

As reported previously, RIDOT cannot inspect all catchbasins and manholes as an independent project due to the size and complexity of the RIDOT drainage system (estimated at over 25,000 catch basins; the majority of them located within the urban area or on divided highways), and for personnel safety (inspecting catch basins on any roadway in the urban area/divided highway would require significant & costly Maintenance traffic protection detail). RIDOT inspects catch basins as part of regular Maintenance activities, and during Design and Construction projects involving drainage components.

RIDOT has established a prioritized approach to inspecting catch basins and manholes. Standard operating procedures have been established to inspect catch basins if dry weather discharge (DWD) is visible at the outfall, during all IDDE investigative work, and during regular Maintenance drainage activities (cleaning of catch basins via Stetco & Vactor trucks).

Each Maintenance Facility bases catch basin cleaning on institutional knowledge of system. The RIDOT Maintenance Division regularly cleans catch basins throughout the state during the Spring/Summer/Fall months. Cleaning is primarily based on institutional knowledge of 'trouble spots' in the areas, response to complaints, and response to flooding issues.

RIDOT Maintenance purchased (in 2011) and is still implementing an Asset Management System Program (VueWorks). This system is GIS-based, and will replace the "Daily Activity Log" excel files that are currently used to document routine Maintenance work. Once RIDOT can document the catch basins that are cleaned each year, RIDOT can develop a systematic program for annual catch basin cleaning. Please see Minimum Measure 6 for more information.

The RIDOT Construction Division is also responsible for maintenance and cleaning of drainage system components involved in active construction projects. As part of any project that requires drainage work, contractors are typically required to 'flush and clean' the drainage system. RIDOT also develops projects that investigate/maintain/flush & clean whole drainage systems.

**In 2012/2013, RIDOT developed standard procedures for drainage system investigations to be included in these projects. Standard language for drainage system cleaning/inspection/mapping has been developed and was included in a pilot project on the I-295 corridor. Based upon the results of these contracts, the contract language may undergo further revision, with the intent of inclusion in to more contracts in 2014.**

**RESPONSIBLE PARTIES** - The Natural Resources Unit, RIDOT Maintenance, and RIDOT Construction are all responsible for the implementation of this plan.

**EFFECTIVENESS** - RIDOT does not consider this an achievable requirement. The RIDOT catch basin/manhole/pipe system is significantly larger than any other MS4, and inspecting every catch basin every year is not feasible with the resources that RIDOT currently has.



**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT Maintenance will continue to inspect and clean catch basins as part of regular Maintenance activities. Maintenance inherently does this on a prioritized approach; however the Natural Resources Unit will work with the Maintenance Division to develop a Standard Operating Procedure to ensure that catch basins within TMDL areas and around environmentally sensitive areas (wetlands, rivers/streams/ponds, etc.) receive priority cleaning & maintenance.

RIDOT Natural Resources Unit will continue to work with RIDOT Maintenance to document inspection work.

RIDOT Natural Resources Unit will continue to work with cities/towns and local citizen groups to continue coordination efforts.

RIDOT wishes to work with RIDEM to establish an acceptable variance to General Permit requirements regarding annual catch basin inspections. RIDOT anticipates developing an acceptable plan for each of the Maintenance districts with coordination from RIDEM. This work will be concurrent with the implementation of VueWorks in the Maintenance Division.

RIDOT will implement the Maintenance Division Asset Management System (VueWorks). It is anticipated that this program will be fully implemented by the end of 2014. Please see Minimum Measure 6.

RIDOT will include video inspection, gps location, and documentation to applicable Construction contracts to increase the inspection rate of catch basins. This data will be compatible with VueWorks, and will be documented in next year's RIPDES Annual Report.

IV.B.3.b.5.vii

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. **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 must include a report of all outfalls and indicate the presence or absence of dry weather discharges.**  
 Date of Completion: **ONGOING**

**BMP ID 3E, F – Outfall Surveys / Sampling**

Outfalls were examined for dry weather discharges during the initial Outfall Mapping effort, which occurred during dry weather conditions between July and October each year. Outfalls that were determined to have dry weather discharge, or were unknown, have been re-visited, and another dry weather survey conducted. If dry weather discharge was present during the re-inspection, the flow was sampled for pH, conductivity, temperature, and bacteria as described in the RIDOT IDDE Plan.

In 2012, RIDOT identified priority inspection/sampling outfalls and created a schedule for the Jan/Apr and Jul/Oct sampling efforts. All RIDEM TMDL reports (including drafts) were examined to identify RIDOT outfalls identified in the reports as contributing to TMDL listings. The outfalls were identified using the TMDL reports in conjunction with RIDOT ArcGIS data to approximate outfall locations. After priority outfalls were established, a database was created to ensure follow-up sampling and monitoring.

**A sampling schedule for the summer 2013 was created, with a goal of having all TMDL outfalls sampled by September 1, 2013 (weather dependent). In addition to the TMDL priority outfalls, all outfalls with a history of dry weather discharge were scheduled to be examined/sampled again.**

In 2013, based on prior data, a total of 164 outfalls were selected as priorities for re-inspection. 75 of these outfalls had previously been identified as "YES" for Dry Weather Discharge (DWD).

Based on field investigation completed in 2013, these outfalls are currently classified as follows:

- 94 outfalls are "NO" for DWD
- 32 outfalls are "YES" for DWD

The remaining 38 outfalls either still require a re-inspection, based on lack of Dry Weather days in 2013, or require a revisit due to other issues (ie: unreachable, submerged, couldn't be located).

Based on sample results, outfalls will be 1) routinely monitored and scheduled for IDDE inspection, or 2) taken off of the monitoring list based on "normal" field data and analytical results.

The "Outfall" layer in the RIDOT Geographic Information System (GIS) database was updated and additional notes describing conditions at each outfall were added. Where DWD was observed, conductivity, pH, and temperature, were recorded on the Outfall Inspection Sheet, and samples were collected and analyzed for bacteria levels at the RI State Laboratory. Findings were mapped in ArcGIS and documented in the attribute tables for the corresponding outfall locations. [ATTACHMENT 3A]

**RESPONSIBLE PARTIES** - RIDOT Natural Resources Unit is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT Maintenance, GIS, Design, & Construction is provided as needed.

**EFFECTIVENESS** - RIDOT considers the IDDE Plan an effective guidance document, however RIDOT has found few Dry Weather Flows that require investigation.

The Jan-Apr survey/sampling has not been an achievable measure. Due to snow cover & snow melt in January & February, and frequent rain in March & April, there are very few 'dry weather days' in the sampling period. RIDOT will continue to monitor weather and attempt Jan-Apr sampling when possible.

**YEAR 11 (14) EXPECTED ACTIONS** - RIDOT will continue examining outfalls for Dry Weather Flow and sampling/investigating as appropriate. RIDOT summer interns will revisit outfalls with Dry Weather Flow, and also all Priority TMDL outfalls.

IV.B.3.b.7

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.

RIDOT NRU attempts to work with other MS4 Coordinators, and with the RIDEM Office of Compliance and Inspection (OC&I) to investigate dry weather discharges and possible illicit connections. RIDOT provides plans and field support when requested by either the MS4 or OC&I.

**RESPONSIBLE PARTIES** - RIDOT Natural Resources Unit is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT Maintenance, GIS, Design, & Construction is provided as needed.

**EFFECTIVENESS** - RIDOT considers the coordination with MS4s and RIDEM OC&I an extremely effective effort.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue working with RIDEM OC&I and all other MS4s as needed.

IV.B.3.b.8

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.

No referrals were made to DEM in 2013.

**RESPONSIBLE PARTIES** - RIDOT Natural Resources Unit is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT Maintenance, GIS, Design, & Construction is provided as needed.

**EFFECTIVENESS** - RIDOT considers the coordination with other MS4s and RIDEM an effective effort.

**YEAR 11 (2014) EXPECTED ACTIONS-** RIDOT will continue working with the MS4s and RIDEM as needed.

IV.B.3.b.9	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.
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This permit requirement is covered under the URI NEMO Agreement and RIDOT Winter (Construction) & Summer (Maintenance) Training (Please see Minimum Measure 1).

Additional Measurable Goals and Activities:

**BMP ID 3D – EXISTING/FUTURE CONNECTIONS**

The Design Office oversees the drainage discharges to the RIDOT system accounted for through Physical Alteration Permit Application (PAPA) system drainage. Issuance of a Physical Alteration Permit (PAP) by RIDOT is required whenever a private party desires to make a physical change to any State owned Right of Way (ie: for a curb cut, or to add drainage to the State system, etc). The PAPA process does not typically allow for any net increase in peak flow or runoff volume to be routed to any component of an existing RIDOT drainage system. Applicants proposing to route flows to an existing drainage system are required to treat the storm water coming off of their site, in accordance with the RISDISM, prior to the point of connection.

In 2006, PAP's issued from 2002-2006 were reviewed and each documented connection into the RIDOT system was inspected, geo-located utilizing a GPS unit, and documented. A revised policy for PAP policy/regulation was established in Year 3 (2006) to include geo-referencing of proposed drainage interconnections. The PAP records may be reviewed during an illicit discharge investigation to aid in identification of existing contributors.

**In 2013, there were 135 PAPA's either issued by RIDOT, or recommended for approved by the Design Section. Of these, there were 12 permits issued for a total of 14 interconnections to RIDOT's drainage system. [ATTACHMENT 3B]**

**RESPONSIBLE PARTIES** - RIDOT Highway Design is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT Natural Resources Unit and GIS is provided as needed.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort. RIDOT is working towards updating the existing PAP Policy & Manual to include further guidance (for both RIDOT personnel and the public/consultants submitting the applications) on stormwater quality and volume treatment requirements. This effort is complicated by the need for Legislative action in concert with the proposed amendments

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

# of Illicit Discharges Identified in 2013: 2	# of Illicit Discharges Tracked in 2013: 2
# of Illicit Discharges Eliminated in 2013: 0	# of Complaints Received: 0
# of Complaints Investigated: 0	# of Violations Issued: 0
# of Violations Resolved: 2	# of Unresolved Violations Referred to RIDEM: 0
Total # of Illicit Discharges Identified to Date (since 2003): (not reported in 2012)	Total # of Illicit Discharges remaining unresolved at the end of 2013: (not reported in 2012)
<p>Summary of Enforcement Actions:</p> <p>On May 3, 2013 RIDEM issued a Warning Letter to Eco Logic Limited, of Charlestown MA, based on a report that they received of illegal discharge of wastewater into a catch basin on Diamond Hill Road, in Woonsocket. This is part of a State owned drainage system. RIDOT was copied on the Warning Letter. No further action was taken by RIDOT, and no further violations were reported to RIDOT for this location. This situation is assumed to be resolved.</p> <p>On August 29, 2013 RIDEM issued a Notice of Intent to Enforce (NOIE) to Warwick Materials, of Warwick, RI, based on an inspection which confirmed that there was an illegal discharge from property located on Warwick Ave, which was entering a State drainage system and discharging to the Pawtuxet River. RIDOT was copied on the NOIE. No further action was taken by RIDOT, and no further violations were reported to RIDOT for this location. This situation is assumed to be resolved.</p>	
<p>Extent to which the MS4 system has been mapped:</p> <p>Outfalls: 99% completion for easy-access, standard DOT roadways; 99% divided highway/limited access DOT roadways</p> <p>Catchbasins: 90%-95% completion for divided highway/limited access DOT roadways (via Right-of-Way images)</p> <p>The RIDOT Maintenance Division has purchased an Asset Management System (VueWorks). RIDOT is still configuring the system, but anticipates full implementation by the end of 2014. This System will allow RIDOT to more accurately document and report drainage asset (catch basins, manholes, pipes, outfalls, etc.) inspections and maintenance work.</p> <p>Additionally, RIDOT Design and Construction anticipate adding a "Video inspect, Coordinate Location and Documentation" to Construction contract for further documentation of drainage systems. This policy is expected to be implemented in 2014. Please see Minimum Measure 3C.</p> <p>Total # of Outfalls Identified and Mapped to date: 3811</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:
<p>2013: Please See PAPA records. <b>[ATTACHMENT 3B]</b></p>					



**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.)**

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> If the Ordinance was amended in 2013, please indicate why changes were necessary. Please also indicate if amendments have been made based on the 2010 <i>RI Stormwater Design and Installation Standards Manual</i>, and provide references to the amended portions of the local codes/ordinances.</p>
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RIDOT does not have authority to develop &/or adopt ordinances. RIDOT relies on the RIDOT Standard Specifications for Road and Bridge Design and Other Specifications, Contract Specific and Job Specific Specifications, and the RIPDES General Permit for Storm Water Discharge Associated with Construction Activity for compliance with this measure.

The RIPDES General Permit for Storm Water Discharge Associated with Construction Activity requires sediment and erosion control and other waste control at construction sites. As the RIPDES permit requirement is met by the Construction General Permit, RIDOT has focused on creating standardized construction site Soil Erosion & Sediment Control (SESC) Plan templates, which have been in use at RIDOT since 2008 and have been made available to all MS4s via a training session in August 2009. RIDOT created both a Large Site Soil Erosion & Sediment Control (SESC) Plan Template for projects with over an acre of soil disturbance (required by the General Permit), and a Small Site Soil Erosion & Sediment Control (SmallSESC) Plan Template for projects with less than an acre of soil disturbance (not required by the General Permit, but enacted by RIDOT to further control erosion and sedimentation at our Construction sites). Note: These plans and plan templates were previously known as Site Specific Stormwater Pollution Prevention Plans (SWPPP's)

**RIDOT Construction personnel received training on the updated SESC Plans and inspection requirements as part of Winter Construction Training in 2013.**

In 2012, RIDOT approved funding for a URI proposed research project to investigate implementation of a revised model of the RIDEM "Environmental Results Program" on RIDOT Construction Sites. Due to delayed funding issues, and faculty turnover at URI, the project was postponed.

**In 2013, a URI lead investigator, Dr. Vinka Craver, was identified to carry out this project, however the project did not move forward during this reporting period.**

**In 2013, the RIDOT Natural Resources Unit continued to work on revisions to the 1989 Rhode Island Erosion and Sediment Control Handbook, through participation on the Technical Review Committee (TRC) headed by the RI State Conservation Committee.**

**RESPONSIBLE PARTIES** - RIDOT Design, Construction, and the Natural Resources Unit are the primary RIDOT entities responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers the SESC Plan templates successful, however full implementation still remains inconsistent with the small-site SESC Plan; RIDOT considers the update of the 1989 E&S Handbook to be a valuable effort.

**YEAR 11 (2014) EXPECTED ACTIONS** - Continued RIDOT training on SESC Plans and inspection requirements during 2014 is anticipated.

RIDOT expects that the URI led "ERP" project will conduct significant field work and begin reporting results in 2014. The State Conservation Committee completed a Draft Revised RISESCH, which was put out to Public Notice on March 7, 2014. It is anticipated that URI NEMO will begin providing training to State & Municipal staff regarding use of this guidance document, under the RIDOT/RIDEM/URI Agreement (See Minimum Measure 1)

IV.B.4.b.6

Describe actions taken as a result of receipt and consideration of information submitted by the public.

RIDOT's Executive Office includes a Customer Service Office. The purpose of the Customer Service Office is to keep information lines open between the citizens of Rhode Island and RIDOT. We hope to inform, assist, and coordinate our efforts with the general public, cities/towns, businesses, chambers of commerce, public and private organizations, and elected officials during all phases of transportation projects, from concept through completion, to lessen both construction inconveniences and economic impacts. We will strive to produce an effective public information program incorporating such tools as public meetings, project brochures and informational handouts concerning our roads and bridges. Our web site will continue to post up-to-date information on the progress of our projects. The Customer Service Office will also respond to any questions or concerns the public may have regarding the Department of Transportation. The Customer Service Office may be contacted via phone, email, or the RIDOT website: <http://www.dot.state.ri.us/custserv/index.html>.

In 2013, the RIDOT NRU was not informed of any storm water complaints received.

**RESPONSIBLE PARTIES** - RIDOT Office of Customer Service, Design Section, Construction Section, and the Natural Resources Unit are the primary RIDOT entities responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort. The VueWorks Asset Management Program that was purchased by the Maintenance Division has a "Customer Service" module that will be fully implemented across the Department in 2014/15. This module will allow better tracking, coordination, and reporting of measurable goals for the receipt and consideration of stormwater-related complaints.

IV.B.4.b.8

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.

RIDOT requires the Prime Contractor awarded each construction contract that includes an SESC Plan to sign the plan as "Operator.". Any sub-contractor involved in earthwork is also required to sign a signature page acknowledging SESC Plan requirements.

RIDOT has implemented a revised Job-Specific Specification that allows to the imposition of a tiered fine for non-compliance with the Maintenance and Cleaning of Erosion and Pollution Controls. This Specification will remain Job Specific in order to be tailored to meet the requirements of each individual contract. Fines have been imposed on several construction projects.

**RESPONSIBLE PARTIES** - RIDOT Design, Construction, and the Natural Resources Unit are the primary RIDOT entities responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort.

Additional Measurable Goals and Activities:

**BMP ID 4A – E, H – J – REVIEW/REVISE RIDOT POLICIES**

RIDOT has stated in the Annual Reports that many of the additional BMPs (RIDOT SWMPP 4A – E; H-J) have been informally adopted. Although the Standard Specifications have not been formally revised, the BMPs have been implemented in a manner such that legal responsibility is placed on the Contractors to follow environmental permits, conditions, and requirements. RIDOT has implemented many of the BMPs via the Job Specific (J-S) pages or the Contract Specific (C-S) pages of the Contract Documents. RIDOT has also drafted a revised Environmental Protection specification (Section 104.15 of the RIDOT Standard Specifications) to further clarify what is required of State contractors bidding on RIDOT construction projects. This specification, along with the entire Chapter it is part of, are under Legal review, which must be completed prior to adoption.

Both Construction Site SESC Plan Templates (large-site and small-site) are being utilized for RIDOT Construction projects. Job Specific and Contract Specific pages include specific requirements regarding additional, or more specific, specifications regarding environmental protection. The Natural Resources Unit ensures that the JS and/or CS pages include the environmental protection language in all appropriate contracts

RIDOT has reviewed the BMPs originally provided in the SWMPP Measure 4 – Construction Site Runoff Control, and feels that the spirit of the BMPs are satisfied with the Standard Specification section 104.15 revision, the inclusion of environmental protection language in to J-S and C-S pages, and the development and use of the Construction Site SESC Plan templates.

**BMP ID 4G – EROSION AND SEDIMENTATION CONTROL TRAINING**

Please see Minimum Measure 1.

**BMP ID 4K, 4L – WASTE CONTROL TRAINING**

The standard specifications require proper control and disposal of construction site waste. The Resident Engineer is responsible for ensuring these specifications are met onsite; training is provided as part of the Construction Winter Training Series. Please see Minimum Measure 1.

**BMP ID 4M, 4N, 4O – PRE-CONSTRUCTION MEETINGS**

When properly notified by the RIDOT construction division, the NRU attempts to attend meetings with Construction Contractors (ie “Operators”) prior to construction commencement to review environmental constraints and permit conditions.

**RESPONSIBLE PARTIES** - RIDOT Design, Construction, and the Natural Resources Unit are the primary RIDOT entities responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort.

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

**SECTION II. A - Plan and SWPPP/SESC Plan Reviews during Year 10 (2013), 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:
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.
The NRU reviews <u>engineering drawings</u> and SESC Plans as part of the design review and permitting process. RIDOT is required to submit plans to DEM, CRMC, ACOE, etc for permits.
<b>RESPONSIBLE PARTIES</b> - The RIDOT Natural Resources Unit is the primary RIDOT entity responsible for the implementation of this program.
<b>EFFECTIVENESS</b> - RIDOT considers this effort effective.
<b>YEAR 10 (2013) EXPECTED ACTIONS</b> - RIDOT will continue this effort. As part of the next RIPDES General Permit measurable goals, RIDOT will evaluate how to better track SWPPP reviews and inspections.

**SECTION II.B - Erosion and Sediment Control Inspections during Year 10 (2013), 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 Site Inspections:	# of Complaints Received:
# of Violations Issued:	# of Unresolved Violations Referred to RIDEM:
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.	
RIDOT Construction projects that disturb an area greater than one acre are required to have Soil Erosion & Sediment Control (SESC) Plans under the RIPDES Construction General Permit. SESC Plans require erosion and sedimentation control inspections on a weekly basis, and after a storm event. RIDOT hires consultant inspectors to perform SESC Plan inspections on RIDOT construction projects. Each active construction project with an SESC Plan has weekly &/or storm event E&S monitoring. In 2013, there were 29 active construction projects with large-site SWPPPs (102 total active projects). <b>[ATTACHMENT 4A]</b>	
RIDOT Construction projects that disturb an area less than one acre are required to have a Small Site Soil Erosion & Sediment Control (SmallSESC) Plans. Small SESC require erosion and sedimentation control inspections on a weekly basis, and after a storm event. RIDOT Resident Engineers (or a designated inspector) perform the inspections on RIDOT construction projects.	
Final Inspections are conducted on every RIDOT construction project, and are attended when possible by appropriate personnel from the Finals, Maintenance, Design, Construction, and Environmental sections. If any drainage work, BMP, or proper stabilization is noted as not being correctly installed/established, the contractor is notified of this as part of a "Punch List" and must remedy the issue before Final Acceptance is granted. Final payment is based on this Final Acceptance. <b>In 2013, there were 48 Final Inspections. [ATTACHMENT 4B]</b>	





**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.)**

IV.B.5.b.5	Describe activities and actions taken to coordinate with existing State programs requiring post-construction stormwater management.
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RIDOT & RIDEM have a Memorandum of Agreement which includes a joint monthly meeting to review projects. IN 2013, these meetings were held through the month of May. After this time, the meetings were suspended, pending RIDEM's appointment of a new Chief of the Office of Water Resources

The NRU also coordinates an Interagency meeting (CRMC, Army Corps, RIDEM, F&W, etc.) as necessary. In 2013, an Interagency Meeting was held on October 31.

**RESPONSIBLE PARTIES** - RIDOT Natural Resources Unit is the primary RIDOT entities responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort. In early 2014, the vacancy at RIDEM was filled, therefore it is expected that the monthly coordination meetings will resume in the Spring of 2014.

IV.B.5.b.6	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).
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Not applicable to RIDOT

IV.B.5.b.9	<p>Indicate if the Post-Construction Runoff from New Development and Redevelopment 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></p> <p>If the Ordinance was amended in 2013, please indicate why changes were necessary. Please also indicate if amendments have been made based on the 2010 <i>RI Stormwater Design and Installation Standards Manual</i>, and provide references to the amended portions of the local codes/ordinances.</p>
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Not applicable to RIDOT

IV.B.5.b.12 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.

**BMP ID 5C – IDENTIFICATION OF EXISTING STRUCTURAL BMPS & BMP ID 5B – MAINTENANCE AND CLEANING OF STRUCTURAL BMPS**

In 2012, the RIDOT BMP database was been updated to include newly installed structural BMPs and additional information regarding inspections and maintenance. This updated database will be used to populate the Maintenance Division asset management program, VueWorks (please see Minimum Measure 6 for more information). This information has also been collated for each Maintenance Garage into binders. The RIDOT Maintenance Division, with assistance from the Natural Resources Unit, is responsible for the regular inspection and cleaning of these units.

Additionally, RIDOT requires that newly installed storm water treatment units are cleaned before construction final acceptance and payment. The new RI Stormwater Design and Installation Standards Manual requires Operations and Maintenance Manuals to be developed as part of project permitting requirements. The O&M manuals are forwarded to RIDOT Maintenance for review, and the information will be entered in to the VueWorks system once implemented.

**RESPONSIBLE PARTIES** - RIDOT Maintenance and MIS/GIS are the primary RIDOT entities responsible for the implementation of this program, with assistance from the Natural Resources Unit as necessary.

**EFFECTIVENESS** - RIDOT considers the implementation of the VueWorks System in Maintenance will be an effective method to ensure long term operation and maintenance of the storm water treatment units.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort.

Additional Measurable Goals and Activities

**IV.B.5.B.2; BMP ID 5A: MEETING WATER QUALITY STANDARDS**

Current RIDOT policy requires that all new construction meet the State water quality standards for pollutant removal from storm water and redevelopment projects must incorporate BMPs to improve storm water quality to the maximum extent practicable. Management of post-construction runoff is incorporated into project designs. All RIDOT projects are required to follow all federal, state, and local regulations, including the use of the 2010 RIDEM/CRMC [Rhode Island Stormwater Design and Installation Standards Manual](#) for the design of construction projects.

**RESPONSIBLE PARTIES** - RIDOT Design and Natural Resources Unit are the primary RIDOT entities responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort.

**IV.B.5.B.4 – REVIEW OF PLANS**

Current RIDOT policy requires that all new construction meet the State water quality standards for pollutant removal from storm water and redevelopment projects must incorporate BMPs to improve storm water quality to the maximum extent practicable. Management of post-construction runoff is incorporated into project designs. RIDOT's Natural Resource Unit reviews all construction design plans to determine if Permits from regulatory agencies (RIDEM, CRMC, ACOE, Coast Guard, etc) are required.

**RESPONSIBLE PARTIES** - RIDOT Natural Resources Unit is the primary RIDOT entity responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort. In January 2014, RIDOT held a kick off meeting for the development of an Environmental Management System (EMS), based on the findings of an earlier audit. The entire Department will be involved in the development and implementation of the EMS during 2014. Based on the scheduled developed for this project, and submitted to RIDEM, it is anticipated that an EMS Manual and Permit Commitment Tracking System will be implemented at RIDOT by the end of 2015.

**SECTION II.A. - Plan and SWPPP/SESC Plan Reviews during Year 10 (2013), 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:

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.

Engineering drawings and SESC Plans are reviewed by RIDOT Design and NRU before contract award. Post-construction storm water BMPs are reviewed at that time. Please see Minimum Measure 4, Section III.

**RESPONSIBLE PARTIES** - RIDOT Natural Resources Unit & Design are the primary RIDOT entities responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort. In January 2014, RIDOT held a kick off meeting for the development of an Environmental Management System (EMS), based on the findings of an earlier audit. The entire Department will be involved in the development and implementation of the EMS during 2014. Based on the scheduled developed for this project, and submitted to RIDEM, it is anticipated that an EMS Manual and Permit Commitment Tracking System will be implemented at RIDOT by the end of 2015.

**SECTION II.B. - Post Construction Inspections during Year 10 (2013), 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 Site Inspections: 48	# of Complaints Received: n/a
# of Violations Issued: n/a	# of Unresolved Violations Referred to RIDEM: n/a

Summary of Enforcement Actions:

**BMP ID 5D, 5E**

Every RIDOT Construction project receives a Final Inspection before final payment. All 2013 Final Inspections were typically attended by Design, Construction, and Maintenance personnel. Environmental personnel attended when appropriate. **[ATTACHMENT 4B]**

**RESPONSIBLE PARTIES** - RIDOT Final Inspections Division, Construction, Maintenance, Design and the Natural Resources Unit are the primary RIDOT entities responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this effort effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue this effort.

**SECTION II.C. - Post Construction Inspections during Year 10 (2013), 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: 0

# 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.

RIDOT Maintenance will include the BMP database in their Asset Management System (VueWorks) (please see Minimum Measure 6). Once this system is implemented, post-construction stormwater BMP installation, inspection, and maintenance will be tracked.

**RESPONSIBLE PARTIES** - RIDOT Maintenance and MIS/GIS are the primary RIDOT entities responsible for the implementation of this program, with assistance from the Natural Resources Unit as necessary.

**EFFECTIVENESS** - RIDOT considers this effort will be effective once implemented in to the Maintenance Asset Management System.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will continue the effort of configuring VueWorks for post-construction BMP inspections and maintenance.



**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.)**

IV.B.6.b.1.i	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.
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The NRU and the Design Section have identified RIDOT BMPs through plan inspection and contract document searches. An Access Database was developed by the NRU to document the BMP inventory, inspection, and maintenance ( a copy of the database was provided as an attachment to the 2012 Annual Report). This data will be used in the Asset Management System.

In 2011, RIDOT Maintenance purchased an Asset Management System – VueWorks. This system continues to be configured and implemented by the RIDOT Highway and Bridge Maintenance Division. RIDOT understands the importance of accurate records and reporting with respect to storm water management, and RIDOT has chosen to prioritize the implementation of the drainage network assets. Configuration is still underway, with full implementation in the Maintenance Division anticipated.

**RESPONSIBLE PARTIES** – The RIDOT Natural Resources Unit was the entity to compile the inventory and inspection data. The RIDOT Maintenance Division & GIS Division are the primary RIDOT entities responsible for the implementation of the VueWorks program.

**EFFECTIVENESS** - RIDOT considers the implementation of VueWorks will be effective to document existing BMPs, implement an inspection program, and document maintenance activities.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT will develop a policy/procedure to have consultants provide geographical coordinates for future installations. RIDOT Maintenance anticipates the implementation of VueWorks in Maintenance will be continue throughout 2014. RIDOT also anticipates implementing VueWorks in other Divisions through 2014/2015.

IV.B.6.b.1.ii	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.
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**BMP IDs 6F, 6G, 6H, 6I, 6J, 6M, 6N, 6O, 6P, 6Q, 6R**

All RIDOT BMPs have been inspected and were cleaned as necessary in 2010. RIDOT STUs installed on currently active Construction sites are cleaned as part of the final acceptance requirements. In 2012, RIDOT NRU interns reviewed the database to ensure QA/QC. The updated database will be used as the base data for the newly configured Asset Management Program.

**RESPONSIBLE PARTIES** - RIDOT Natural Resources Unit was the primary RIDOT entity responsible for the implementation of the 2009 BMP Monitoring contract.

RIDOT Maintenance is the primary RIDOT entity responsible for the inspection and maintenance of the units. This will be part of the VueWorks Asset Management System.

**EFFECTIVENESS** - RIDOT considers the BMP Monitoring Contract an effective one-time-baseline inspection/cleaning effort. RIDOT anticipates the VueWorks system will be an effective tool to schedule and document BMP inspections and maintenance work.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT Maintenance anticipates implementation of VueWorks in 2014, after configuration and training is complete; structural BMPs will be part of this system.

RIDOT Maintenance Division will conduct future inspections, maintain the stormwater structures, and document work in the VueWorks system.

IV.B.6.b.1.iii	<p>Describe activities and actions taken to support the requirement of yearly inspection and cleaning of all catch basins (a lesser frequency of inspection based on at least two consecutive years of operational data indicating the system does not require annual cleaning might be acceptable). Evaluate appropriateness and effectiveness of this requirement.</p> <p>Total # of CBs within regulated area (including SRPW and TMDL areas): <u>unk</u></p> <p>Total # of CBs inspected in 2013: <u>578 by Maintenance</u></p> <p>Total # of CBs cleaned in 2013: <u>578 by Maintenance +724 in Construction Contracts = 1208 total</u></p>
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**BMP ID 6K, 6L – ANNUAL CATCH BASIN CLEANING**

RIDOT cannot inspect &/or clean every catch basin annually due to the extent of the RIDOT system and the resources available.

Each Maintenance Facility bases catch basin cleaning on institutional knowledge of system. The RIDOT Maintenance Division regularly cleans catch basins throughout the state during the Spring/Summer/Fall months. Cleaning is primarily based on institutional knowledge of 'trouble spots' in the areas, response to complaints, and response to flooding issues.

RIDOT is able to provide the following documentation of what has been inspected/cleaned by the Maintenance Division. A copy of the Catch Basin Database is included; however it is not a complete documentation of RIDOT Maintenance inspections or activities. **In 2013, RIDOT estimates that 578 catch basins were cleaned as part of Maintenance projects. [ATTACHMENT 6A]**

The RIDOT Construction Division is also responsible for maintenance and cleaning of drainage system components involved in active construction projects. As part of any project that requires drainage work, contractors are typically required to 'flush and clean' the drainage system. RIDOT estimates these catch basins by examining the "Distribution of Quantities" in projects that have been Finalized in 2013 (the "DOQ" provides a listing of payment items; and 'clean and flushing of the system is typically one of the last procedures of an active construction project). **In 2013, RIDOT estimates that 107,085 linear feet of drainage lines, 210 manholes, and 724 catch basins were cleaned as part of Construction projects. [ATTACHMENT 6B]**

In 2011, the Maintenance Division purchased an Asset Management System (VueWorks). VueWorks is currently being configured for implementation in the RIDOT Highway and Bridge Maintenance Division. RIDOT understands the importance of accurate records and reporting with respect to storm water management, and RIDOT has chosen to prioritize the implementation of the drainage network assets. The current RIDOT catch basin database will be used as base data and concept. . RIDOT also anticipates implementing this program in the Design and Construction Divisions to more accurately document the catch basins inspected and cleaned as part of their routine work.

**RESPONSIBLE PARTIES** - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program.

RIDOT Construction is the secondary RIDOT entity responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT does not consider this measure achievable. However, with the implementation of VueWorks, it is anticipated that RIDOT will be able to provide accurate documentation of inspections and maintenance and develop a programmatic preventative maintenance schedule for the drainage network. This is anticipated to take several years.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT Maintenance will continue to inspect and clean catch basins as part of regular Maintenance activities; Maintenance will continue the implementation of VueWorks – including the drainage network assets.

IV.B.6.b.1.iv	Describe activities and actions taken to minimize erosion of road shoulders and roadside ditches by requiring stabilization of those areas. Evaluate appropriateness and effectiveness of this requirement.
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**BMP ID 6S – Stabilization of roadside shoulders**

RIDOT funded Dr. Rebecca Brown of the University of Rhode Island to develop a slope stabilizing, salt tolerant grass mix. The study with URI on the Salt Tolerant Grass Mixes is entitled *Evaluation of Native Grasses for Highway Slope Stabilization and Salt Tolerance*. The purpose of the study was to help develop a grass seed mix that can be used along the highway, especially at the road edge, where grass is being killed by the winter salt. It would be advantageous to have a grass seed mix that will grow in this 20 foot zone, so erosion of the road edge would not occur. Another part of this study is to help develop a seed mix that consists of native grasses that are deep rooted for use on steep slopes to help prevent erosion. This would be used in rural areas and would possibly not be mowed. This project was funded with research monies from FHWA.

**RESPONSIBLE PARTIES** - URI has completed the research study.

**EFFECTIVENESS** – RIDOT anticipates the research will aid in future stabilizations efforts.

**YEAR 11 (2014) EXPECTED ACTIONS** - The RIDOT Landscape Unit has reviewed the studies, and will continue to implement key findings as appropriate.

RIDOT will continue to fund environmental studies through the National Highway Cooperative Research Program with URI.

IV.B.6.b.1.v	Describe activities and actions taken to identify and report known discharges causing scouring at outfall pipes or outfalls with excessive sedimentation, for the Department to determine on a case-by-case basis if the scouring or sedimentation is a significant and continuous source of sediments. Evaluate appropriateness and effectiveness of this requirement.
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Discharges causing scouring are identified during the initial outfall location identification and GPS field work

**PERMIT ID# IV.B.3.B.1; BMP ID 3A – OUTFALL MAPPING**

**RIDOT NRU has developed a new Specifications that was included in two (2) Construction contracts in 2013. This specification includes “video inspections, GPS locating, and documenting” as part of the “Clean and Flush” work. It is anticipated that this specification will be presented to the RIDOT Spec. Committee for adoption as a standard Specification in 2014.**

**RESPONSIBLE PARTIES** - RIDOT Natural Resources Unit was the primary RIDOT entity responsible for the initial identification of outfalls with scouring &/or sedimentation.

RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program. RIDOT Construction is the secondary RIDOT entity responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT does not consider this measure achievable. However, with the implementation of VueWorks, it is anticipated that RIDOT will be able to provide accurate documentation of inspections and maintenance and develop a programmatic preventative maintenance schedule for the drainage network. This is anticipated to take several years.

**YEAR 10 (2013) EXPECTED ACTIONS** - RIDOT Maintenance will continue to inspect and clean catch basins as part of regular Maintenance activities; Maintenance will continue the implementation of VueWorks – starting with the drainage network assets.

IV.B.6.b.1.vi	<p>Indicate if all streets and roads within the urbanized area were swept annually and if not indicate reason(s). Evaluate appropriateness and effectiveness of this requirement.</p> <p>Total roadway miles within regulated area (including SRPW and TMDL areas): <u>unknown</u></p> <p>Total roadway miles that were swept in 2013: <u>unknown</u></p>
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**BMP ID 6T, 6U – ANNUAL ROAD SWEEPING**

The RIDOT Maintenance Division has attempted to sweep 100% of the state highways each year, however this is often not achieved due to the limited availability of overtime, personnel, and equipment. It is estimated that 80-90% of divided highway sweeping is completed each year. The individual facilities estimate that 90-100% of the secondary roadways are completed each year.

Beginning in 2007 the RIDOT Highway & Bridge Maintenance Division implemented an alternate program for sweeping the high-speed/limited access facilities in and around the Providence metropolitan area. Known as the "Big Sweep", all seven of the Division's District Maintenance Facilities perform a coordinated sweeping operation, with each District operating outside of its usual boundaries. This concerted effort allows for a great deal of highway miles to be swept over a brief period of three to four weeks.

Per year the Division is typically authorized for 3-4 nights of overtime operations in order to schedule this program, which occurs one night per week in April/May. In addition, portions of these segments may be re-swept 2-4 times over the remainder of the year as debris and sediments accumulate.

Currently, RIDOT cannot provide accurate documentation of roadway sweeping operations. However, in 2011, the Maintenance Division purchased an Asset Management System (VueWorks). VueWorks is currently being implemented in the RIDOT Highway and Bridge Maintenance Division. RIDOT understands the importance of accurate records and reporting with respect to storm water management, and RIDOT has chosen to prioritize the implementation of the drainage network assets. The sweeping operations are also anticipated to be fully implemented early in the process.

**RESPONSIBLE PARTIES** - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT does not consider this measure achievable. Currently, RIDOT has insufficient resources to conduct roadway sweeping more than once per year other than as a response to complaint or need. However, with the implementation of VueWorks, it is anticipated that RIDOT will be able to provide more accurate documentation of sweeping operations and develop a programmatic maintenance schedule for the sweeping operation.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT Maintenance will continue to sweep roads as part of regular Maintenance activities; Maintenance will continue the implementation of VueWorks – including the drainage network assets.

IV.B.6.b.1.vii	<p>Describe activities and actions taken for controls to reduce floatables and other pollutants from the MS4. Evaluate appropriateness and effectiveness of this requirement.</p>
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RIDOT uses prison work crews to pick up litter along highways. **In 2013, RIDOT paid \$592,510 for prison crews and picked up 61, 958 bags of litter.** Please see Minimum Measure 2C.

Additionally, RIDOT is utilizing state-of-the-art snow equipment to reduce sand pollutants. [\[ATTACHMENT 6C\]](http://www.ecori.org/government/2013/2/8/liquid-salt-reducing-sand-on-ri-roads.html)  
<http://www.ecori.org/government/2013/2/8/liquid-salt-reducing-sand-on-ri-roads.html>

**RESPONSIBLE PARTIES** - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this measure effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT Maintenance will continue this program.



**POLLUTION PREVENTION & GOOD HOUSEKEEPING cont'd**

IV.B.6.b.1.viii	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>RIDOT Maintenance facilities have Stormwater Pollution Prevention Plans and/or Spill Prevention Plans (as appropriate) which require the proper storage and removal of waste. (Submitted to RIDEM RIPDES w/ 2006 Annual Report; Updated Reports submitted with 2012 Annual Report). Catch basin and street sweeping wastes are disposed of at the Johnston Rhode Island Resource Recovery landfill following applicable state regulations and guidance. In 2011, the SWPPPs and SPCCs were evaluated and updated.</p> <p>In 2012, a full SWPPP &amp; SPCC Audit was conducted at each Maintenance Facility to determine purchasing needs for compliance issues. RIDOT Maintenance continues to work toward full implementation of the updated plans.</p> <p>RIDOT Construction projects must adhere to the RIDOT Standard Specifications ("Blue Book"), which requires the proper and legal disposal of waste from all RIDOT Construction sites. In order for a Contractor to get paid for the item, proper documentation and record-keeping is required.</p> <p><b>RESPONSIBLE PARTIES</b> - RIDOT Maintenance and Construction are the primary RIDOT entities responsible for the implementation of this program.</p> <p><b>EFFECTIVENESS</b> - RIDOT considers this measure effective.</p> <p><b>YEAR 11 (2014) EXPECTED ACTIONS</b> - RIDOT Maintenance &amp; Construction will continue this program. RIDOT Maintenance is currently implementing the compliance items for each facility SWPPP &amp; SPCC</p>	
IV.B.6.b.4 and IV.B.6.b.5	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>RIDOT Maintenance facilities have Stormwater Pollution Prevention Plans and/or Spill Prevention Plans (as appropriate). The Facility SWPPP requires actions (inspections, monitoring, reporting) fulfilling obligations under IV.B.6.b.4 and IV.B.6.b.5. The SWPPPs and SPCCs were updated in 2011. In 2012, a full SWPPP &amp; SPCC Audit was conducted at each Maintenance Facility to determine purchasing needs for compliance issues.</p> <p><b>RESPONSIBLE PARTIES</b> - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program.</p> <p><b>EFFECTIVENESS</b> - RIDOT considers this measure effective.</p> <p><b>YEAR 11 (2014) EXPECTED ACTIONS</b> - RIDOT Maintenance is currently implementing the SWPPPs &amp; SPCCs. RIDOT Maintenance is also implementing an asset management program, VueWorks, and it is anticipated that facility inspections will be documented in VueWorks in the future as part of the FACILITIES module.</p>	
IV.B.6.b.6	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><b><u>BMP ID 6C, 6D, 6E – EMPLOYEE TRAINING</u></b></p> <p>Please see Minimum Measure 1.</p>	

IV.B.6.b.7	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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Not applicable to RIDOT

Additional Measurable Goals and Activities

**BMP ID 6A, 6B – WINTER OPERATIONS - ONGOING**

**Salt Storage:** Currently, 14 out of 20 RIDOT Salt Storage facilities have permanent cover. Where facilities do not have salt barns, a contractor has been hired to cover & uncover salt piles. The contract was originally awarded late in the FY2010 winter season and was in full effect for the FY2011 winter. New salt storage barns are now being designed & constructed to have completely enclosed loading and unloading operations. These new barns are being constructed as funding allows. It is anticipated that all RIDOT salt storage will be under permanent cover in 2015 (dependent upon funding).

In 2011, RIDOT Maintenance Division invested significant capital expense in the Winter Operations program. A salt-brining machine was purchased and installed at the Mid-State Facility in 2011. This machine allows Maintenance to pre-treat the roadways with a brine solution before a snow event. Maintenance also purchased 61 closed-loop spreader control systems to upgrade or refurbish existing Maintenance vehicles with better machinery to control salt/sand spreading rates. RIDOT Maintenance also initiated a 20% *Green Equipment Incentive* for RIDOT vendors. Vendors must have an operating and functional AVL/GPRS closed loop spreader to receive the 20% increased pay rate. These investments will significantly reduce the amount of salt and sand on RIDOT roadways.

RIDOT Maintenance has also decided to keep the updated RFP for the 'end of season salt/sand transport' which includes large material haulers to expedite the final state-wide consolidation of salt/sand piles to covered locations. Previously, this final winter operation task took several months of transporting the temporary salt piles to permanent structures. With this updated RFP, it is now completed within several weeks.

**2013 SALT BARN STATUS:**

Anthony Road, Portsmouth – New Maintenance Facility scheduled to be constructed 2014, pending funding availability. Salt Storage Facility will follow that construction, likely in 2015-2016. Projects were delayed due to use of RIDOT parcel as a stockpile area for Sakonnet River Bridge project.

Apex/I-95 Pawtucket – New paved stockpile area was constructed in 2010 near Exit 30 (I-95 South). RIDOT is currently in negotiations with the City of Pawtucket to construct a new salt storage (shared use) at their existing DPW facility off of Armistice Blvd.; construction likely in 2014.

Belleville, NK – Completed 2009.

**Dillon's Corner, Narragansett – Anticipated to be complete in 2014.**

**Geo. Washington Hwy, Lincoln - Construction completed in 2013.**

Route 116, Smithfield –Completed in 2010.

Route 6 & 295, Johnston - Completed 2010.

Warren Ave, E. Prov – Scheduled for construction in 2014-2015, depending upon funding and use of stockpile area as a staging area for accelerated bridge replacement project.

West Main Road, Middletown – Site was discontinued in 2010; new stockpile area is located at Route 138 off-ramp in Newport. Long term plan is to construct a shared-use facility at the Newport DPW site off of Adm. Kalbfus. Construction not likely before 2015.

Of note is that the new environmental regulations which took effect in 2010 have increased our overall construction costs by about 25% thus reducing our ability to construct 2 new facilities per year, we now can only afford to build 2 facilities over 3 years based on current funding appropriations. The new environmental regulations require the entire

**POLLUTION PREVENTION & GOOD HOUSEKEEPING cont'd**

storage and loading process to occur under the same roof, within the structure, which forced us to expand the square footage of the facilities in order to continue to maintain adequate salt quantities to maintain safe and operable highways.

**RESPONSIBLE PARTIES** - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program.

**EFFECTIVENESS** - RIDOT considers this measure effective.

**YEAR 11 (2014) EXPECTED ACTIONS** - RIDOT Maintenance will continue this program. RIDOT Maintenance will continue to upgrade equipment & salt barns as funding allows.

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

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

**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:

**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).**

RIDOT Design/Construction projects are required to use the 2010 Rhode Storm Water Design and Installation Standards Manual, as applicable, which requires water quality BMPs & LID. RIDOT Design/Construction projects are also subject to DEM RIPDES, Water Quality, & Wetland regulations, CRMC, ACOE, USCG, etc. permit requirements.

**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).**

None



## 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.**

RIDOT has been awaiting RIDEM's issuance of a new RIPDES General Permit (expected in 2008, when the last permit expired) to amend its SWMPP to include RIDEM TMDL implementation plan efforts. The Request for Proposals (RFPs) to seek consultant services for developing a 5-year state-wide TMDL implementation plan for RIDOT did not move forward as anticipated in the 2012 Annual Report, and is currently not being considered for advertisement.

### **Municipal Mapping Assistance Program (MMAP)**

**In 2013, RIDOT was a project partner with RIDEM in the MMAP. Through this program, RIDEM and RIDOT interns worked together with the town North Providence to delineate the catchment area and the drainage system components of the priority outfalls identified in the Woonasquatucket River TMDL Report. [\[ATTACHMENT 2A\]](#)**

In 2014, RIDOT plans to continue partnering with the RIDEM MMAP program, with the focus in the Oakland Beach section of the City of Warwick.

### **Roger Williams Park Ponds Restoration**

RIDOT has also participated as a member of the Roger Williams Park Ponds Restoration Steering Committee. This team, led by Providence's Roger Williams Park and the Narragansett Bay Estuary Program, focuses on restoring Roger Williams Park ponds through stormwater management BMP's. Roger Williams Park ponds were identified in the Total Maximum Daily Loads for Phosphorus To Address 9 Eutrophic Ponds TMDL report. RIDOT received several conceptual design practices that may be incorporated in to future RIDOT projects in the area.

In 2012, RIDOT developed a comprehensive database for RIDOT TMDL compliance. This database includes information regarding the TMDL document, the listed waterbodies, RIDOT associated outfalls, and other pertinent information that will aid RIDOT in developing a comprehensive action plan. In 2013, RIDOT began a program to visit each TMDL-listed priority outfall to evaluate dry weather discharge, catchment area (if applicable), and contribution to impaired waterbody. This effort is anticipated to be ongoing through 2014.

### **Stormdrain Retrofit**

The Stormdrain Retrofit Demonstration Project started in 1993 with Federal Funding from the Intermodal Surface Transportation Equity Act (ISTEA, 1991). In 1996, URI conducted a study to determine Priority Outfalls within the Moshassuck, Pawtuxet, and Woonasquatucket River watersheds. RIDEM, RIDOT, and numerous other agencies and stakeholders agreed that 20 of these outfalls were to be the priority focus of RIDOT retrofit efforts. In 1998, Crossman Engineering, Inc (CEI) was contracted to re-assess the priority outfall report, and provide recommendations of the final outfall retrofits. CEI provided the Phase III Report in 2003 that recommends the prioritization of the outfalls. Of the 20 priority outfalls highlighted in the Phase III Report, RIDOT has one remaining outfall to be retrofitted. Ten priority outfalls have been constructed; five priority outfalls have been designed but then incorporated in to larger construction projects; four priority outfalls have 'no build' as the design recommendation from CEI; the remaining outfall (P106) has a conceptual design completed, and is on hold. In addition to these 20 priority outfalls, 10 other project areas have been retrofitted.

In 2012, RIDOT obtained funding to advance work to resolve beach closure issues at Scarborough State Beach. Funding approvals have been issued for completing preliminary designs in order to determine a final design scenario. Final design work is dependent upon the State (not RIDOT) obtaining construction and maintenance funding.

**TMDL Watersheds**

In addition to the Stormdrain Retrofit Program, RIDOT incorporates drainage improvements in construction projects within TMDL areas where feasible.

Apponaug Cove, Gorton Pond, Greenwich Bay: The Apponaug Circulator Improvements project design was approved by RIDEM in 2013. Construction is set to begin in 2014. This project is incorporating significant improvements to the current river and wetland system, including daylighting of a portion of the Apponaug River.

Greenwich Bay: Consultant has received both RIDOT and RIDEM TMDL comments on the Initial Project Assessment Report. This work was not advanced in 2013 due to resource constraints.

Sakonnet River: The Sakonnet River Bridge Replacement project drainage work is designed to achieve improved TSS removal rates through the addition of deep sump catch basins, extended detention basins, and the use of bio-retention facilities. Local roads were added to the drainage system improvements to achieve a greater water quality benefit over a larger area. The bridge construction was completed in 2014. Advertisement of the next contract, including the local drainage is currently on hold due to funding issues.

Bailey Brook: The Two Mile Corner Reconstruction project will mitigate untreated stormwater through a created gravel wetland. This project has been advertised for construction in 2014..





## 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.

RIDOT has chosen to implement our Storm Water Management Program state-wide, not just within the Urban Boundary and divided highways. As such, all 6 minimum measures are being implemented state-wide.



## **Storm Water Phase II Public Outreach, Education, Involvement and Participation**

### **Progress Report University of Rhode Island March, 2013**

Reporting Period:	January 1, 2013 to December 31, 2013
University of Rhode Island Investigators	Lorraine Joubert, Lisa D. Philo and Arthur Gold
URI Project Officer	Lorraine Joubert, Coordinator RI NEMO University of Rhode Island, CELS Cooperative Extension, NRS Dept. Coastal Institute 1 Greenhouse Road Kingston, RI 02881
RI Dept. of Transportation Project Officer	Emilie Holland, Principal Environmental Scientist RI Department of Transportation Natural Resource Unit 2 Capitol Hill, Rm. 368 Providence, RI 02903
RI Dept. of Environmental Management Project Officer	Eric Beck, Supervising Engineer RI Department of Environmental Management Division of Water Resources, RIPDES Program 235 Promenade Street Providence, RI 02908
Contracting Office	University of Rhode Island Sponsored Projects Review 70 Lower College Road Kingston, RI 02881
Project Period:	10/1/05 –12/31/11



## **Storm Water Phase II Public Outreach, Education, Involvement and Participation**

### ***Progress Summary January 1 – December 31, 2013***

#### **Project Description**

With funding from the Rhode Island Department of Transportation and oversight by the Rhode Island Department of Environmental Management (RIDEM), the University of Rhode Island Cooperative Extension (URI) and the Southern Rhode Island Conservation District (SRICD) have developed public education materials, outreach methods and related tools to assist the RI Department of Transportation (RIDOT), Rhode Island municipalities, and other groups implement effective stormwater management programs. This education and outreach project has directly supported RIDOT and participating municipalities in complying with Phase II permit requirements.

The major project objectives were to:

1. Promote public awareness of storm water impacts and control actions through a statewide media campaign;
2. Develop educational materials and outreach methods for use by municipalities, state agencies, community organizations and others, in a readily accessible format;
3. Provide model ordinances for local storm water management with related training; and
4. Train government staff, local officials, and others in updated storm water management practices.

#### **Major Accomplishments**

The Storm Water Phase II Outreach and Education Project ended in 2011. Without funding, there were no DEM-required workshops and public stormwater education activities were very limited. However, RI NEMO continued to maintain the project website and respond to requests for information. In addition, URI assistance to municipalities on drinking water source protection as resulted in progress towards better local stormwater management. RI NEMO's accomplishments are described below.

1. RI NEMO completed a major reorganization of the RI Stormwater Solutions website at [www.ristormwatersolutions.org](http://www.ristormwatersolutions.org). Launched in July, 2013, the new site features improved navigation, new materials, updated design with fresh look, compatibility with URI web design standards, and transition to WordPress platform for ease of use. We have continued to maintain and update the site since its debut. The new site will be publicized following a similar overhaul of the RI NEMO website.
2. We continued to update and expand the on-line inventory of LID stormwater management practices at <http://web.uri.edu/riss/lid/lid-inventory/>. In addition, we



transitioned to a new WordPress database that allows for easier sorting of LID projects.

3. Lorraine Joubert, NEMO program director, served on the Technical Review Committee overseeing a major update of the RI Soil Erosion and Sediment Control Handbook and helped coordinate review of the draft handbook with municipal stormwater managers and planners. This revision, led by the Southern Rhode Island Conservation District, is the first in 25 years.
4. URI developed Soil Depth and Quality Standards that were incorporated into the revised draft RI Soil Erosion and Sediment Control Handbook, and which will set the standard for all development regulated by state agencies and municipalities. The technical standards were initially created by Dr. Mark Stolt, professor of soil science in the URI Department of Natural Resources Science, in cooperation with RI NEMO.

The standards are designed to reduce post-construction stormwater runoff in two ways: 1) to ensure that construction sites are properly decompacted and restored to maintain pre-development soil infiltration rates, and 2) to provide sufficient depth of topsoil and organic matter content to maintain healthy plant growth and vegetative cover without need for excessive water and fertilizer following land development.

The new technical standards were reviewed and approved by a team of private sector consultants, researchers, and state and federal agency staff with expertise in soils, agronomy and hydrology. The standards were then incorporated into the draft RI Erosion and Sediment Control Handbook, with review and approval by the technical review committee. The handbook establishes the technical standard used by all state agencies and municipalities, including all land development projects subject to review and approval by these entities.

5. RI NEMO provided technical support to the town of North Smithfield which led to adoption of two new ordinances with improved local stormwater standards. URI assistance included: completion of a GIS-based impervious analysis of the town's critical groundwater recharge areas and surface water reservoir watersheds using town parcels and zoning; review of ordinance drafts and recommendations; and participation at public hearings to address technical questions.

The adopted ordinances include an innovative "Water Resource Protection Overlay District" (Zoning section 6.19) focused on the town's groundwater aquifers, WHPAs and Woonsocket Reservoir Watershed. It establishes impervious cover limits by zoning district which are designed to keep average impervious in the Reservoir watershed below 10% while taking into account future growth.

Also adopted was "Wetland Setbacks for Onsite Wastewater Treatment Systems (OWTS), Buildings and Impervious Surfaces" (zoning section 6.12). This establishes setbacks that are more protective than state minimum standards. Both ordinances require use of the RI Storm Water Standards Manual and mandates use of LID practices with new construction and redevelopment. In late 2012 North Smithfield also adopted an updated erosion and sediment control ordinance based on the model ordinance developed by RI NEMO and the Southern Rhode Island Conservation District under the Storm Water Phase II Education Project.

6. We continued to respond to requests for use of RI Stormwater Solutions educational materials from RI municipalities, state agencies, organizations and individuals in Rhode Island and occasionally from other states. The fact sheets, cartoons and rain garden sign have been the most popular. For example, the attached rain garden sign example shows how Illinois adapted the RI sign from the EPA Region 1 website and substituted their own native rain garden plant and partner logos using original files provided by URI.
7. RI NEMO continued to coordinate with RIDEM, RIDIOT, other agencies and non-profit organizations on stormwater education and outreach activities targeting municipalities.
8. URI continued to offer youth stormwater education programs. In this reporting year three types of programs were held:

The URI Outreach Center has incorporated a stormwater education module in the Learning Landscape program for K-grade 2 students at the URI Botanical Center, Kingston campus, which is offered annually for interested schools as a field trip. This includes use of the Enviroscope watershed model and other interactive learning exercises.

The URI Outreach Center conducted an Eco-Exploration Camp at the URI Botanical Center in Kingston, and at the Roger Williams Park Botanical Center in Providence. This also incorporated stormwater education using the model and other hands learning activities. In addition, this program was led by URI students in the URI Science and Engineering Fellows program, exposing them to stormwater concepts not always encountered in their required classes.

RI NEMO conducted a half-day stormwater education program for all three classes of second graders at the West Kingston Elementary school on June 14, 2013. The coincided with completion of the "water cycle" science module and reached 66 children. RI NEMO organized the program at the request of Bill Boardman, the South Kingstown Stormwater Coordinator and Kim Mather, principal of the West Kingston Elementary school. Working closely with both individuals, RI NEMO developed the curriculum, managed logistics, organized and trained teachers to assist with the lesson, and with help from the URI Outreach Center, recruited a group of URI Science and Engineering Fellows to assist. The program included use of the Enviroscope model and other learning activities held outdoors. Mr. Boardman was actively involved in the program, greeting each class, introducing the concept of stormwater pollution and describing actions the town is taking to keep water clean. Principal Mathers views this as a pilot and hopes to offer the program each spring, targeting all students within one grade level annually.

9. In cooperation with the RI Coastal Resources Management Council, RI NEMO is working with the University of Connecticut NEMO program to develop a rain garden design application for mobile devices that will be specific to Rhode Island. The current app was first developed for Connecticut and later customized for CT, NJ, MD and DE. It is available at the iPhone store at: <https://itunes.apple.com/us/app/rain-garden/id588712983?mt=8> .

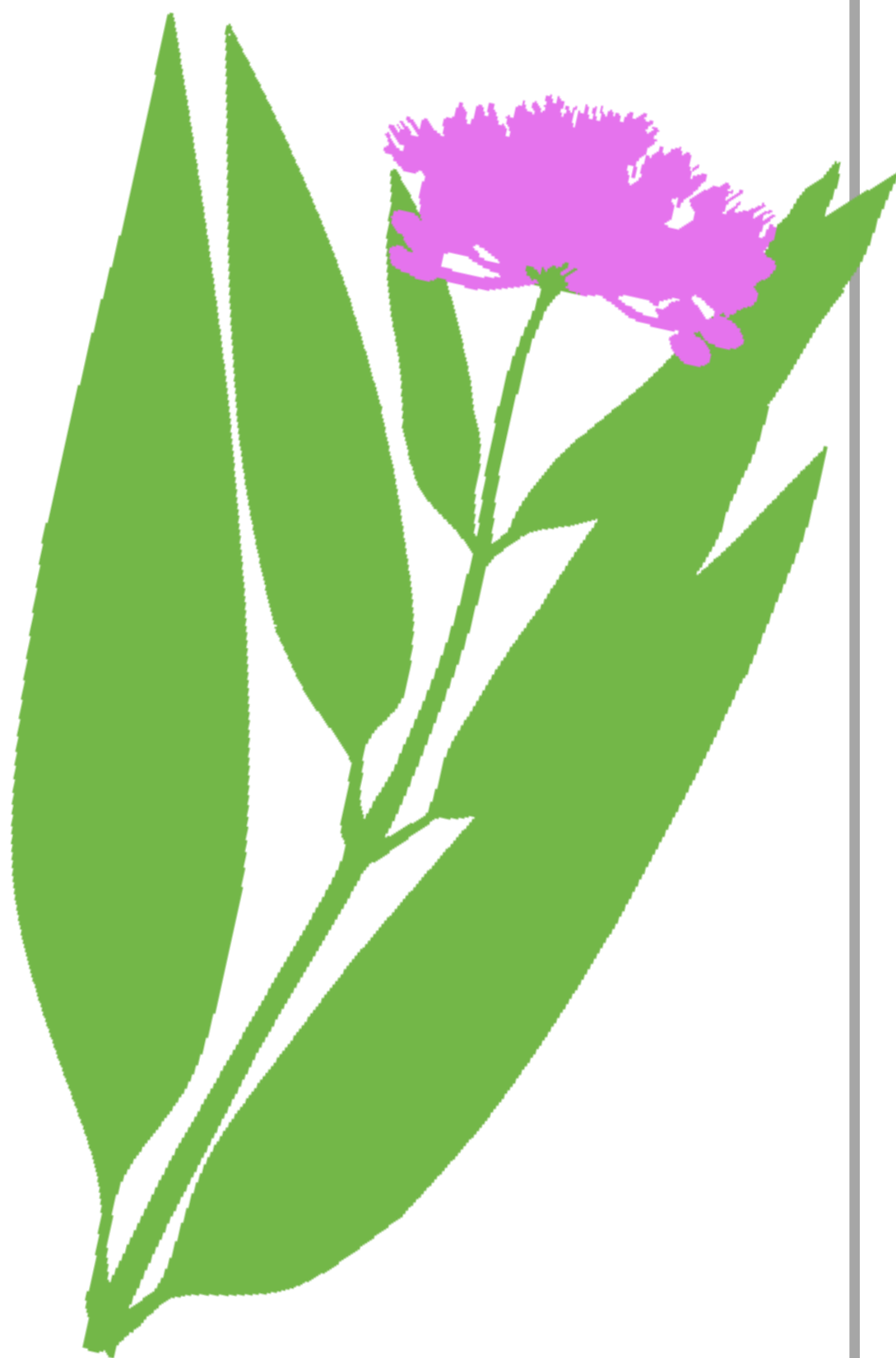
Under this new project, the application will be customized for 17 other states, including Rhode Island. This will incorporate the sizing requirements of the RI Stormwater Management Guidance for Individual Single-Family Residential Lot Development. RI NEMO will be responsible for developing a RI-specific plant list for rain gardens and bioretention facilities based on the URI/CRMC RI Coastal Plant Guide. The Rhode Island plant list is unique in that it will include a list of salt tolerant plants appropriate for roadside locations subject to salt spray or runoff from deicing salt. This will be a valuable feature that other states can use or adapt for their own areas.



# RAIN GARDEN

**T**his garden is designed to catch stormwater from a roof or pavement and let it soak into the ground.

**Rain gardens reduce flooding, replenish groundwater and remove pollutants that would otherwise flow to local waters.**



**A G R E E M E N T**

Between the

**State of Rhode Island and Providence Plantations**

**Department of Transportation**

and

**The University of Rhode Island**

and

**The Rhode Island Department of Environmental Management**

In the Amount of

**One Hundred and Seventy Thousand Dollars (\$170,000 )**

For a Period of Twelve Months

For the Purpose of

**Storm Water Phase II  
Public Outreach, Education, Involvement and Participation**

Contract Identification Code FAP # STP-SDRP(004)

This contract is funded in whole or in part with federal funds, 1270.39001102 (federal),  
1270.38851019 (State)

**Whereas**, the State of Rhode Island and Providence Plantations, hereinafter referred to as **STATE**, by and through its Department of Transportation, hereinafter referred to as **DOT**, has applied for and received FHWA federal grant funds; and

**Whereas**, the University of Rhode Island, hereinafter referred to as **CONTRACTOR**, has agreed to undertake services described in Appendix I, herein, Scope of Work of this Agreement; and

**Whereas**, the Department of Environmental Management, hereinafter referred to as **DEM**, has agreed to provide technical assistance and undertake certain other services as described in Appendix I – Scope of Work of this Agreement; and

**Whereas**, the **STATE** has delegated contracting authority to the **DOT** to enter into agreements with sponsors of projects to accomplish work to enhance transportation; and

**Whereas**, the **DOT**, **DEM** and the **CONTRACTOR**, under their respective authorities are cooperating to implement programs to enhance transportation as well as protect ground and surface water resources that are threatened by stormwater; and

**Whereas**, the **DOT** and **DEM** have agreed that the successful completion of the services and activities further described in the Scope of Work will fulfill the **DOT's** responsibilities under *Rhode Island Pollution Discharge Elimination System Regulations Storm Water Phase II*, hereinafter referred to as Storm Water Phase II, minimum measure for the *Public Outreach and Education*; and

**Whereas**, the **DOT** and **DEM** have agreed that the successful completion of the services and activities further described in the Scope of Work will fulfill certain aspects of the **DEPARTMENT's** responsibilities under the Storm Water Phase II *Public Involvement and Participation* minimum measure; and

**Whereas**, the **DOT** and **DEM** acknowledge further services and activities are required to fulfill the **DOT's** Stormwater Management Plan responsibilities under Storm Water Phase II minimum measure *Public Involvement and Participation*.

**Whereas**, the **DOT** desires to engage the **CONTRACTOR** to perform certain services and activities, in conjunction and cooperation with **DEM** and other parties, further described in Appendix I, herein, Scope of Work; and

**Whereas**, the **CONTRACTOR** is willing and qualified to provide the services.

**Now Therefore**, the **DOT**, **DEM** and the **CONTRACTOR** hereto do mutually agree as follows:

### **Paragraph 1 - Governing Law and General Terms and Conditions**

This Agreement is deemed executed and delivered in the **STATE**, and all questions arising out of or under this Agreement shall be governed by the laws of the **STATE**.

The **STATE'S** Purchasing Law (Chapter 37-2 of the Rhode Island General laws),

Purchasing Rules and Regulations and General Terms and Conditions, which can be obtained at [www.purchasing.state.ri.us](http://www.purchasing.state.ri.us) shall apply as the governing terms and conditions of this Agreement.

## **Paragraph 2 - Federal Funding Provisions**

Funds made available to the **CONTRACTOR** under this Agreement are derived from federal funds made available to **DOT**. The provisions of Paragraph 1 notwithstanding, the **CONTRACTOR** agrees to make claims for reimbursement under this Agreement in accordance with the applicable federal policies governing allowable costs to be charged against federal grants which specific policies are clearly identified to Contractor elsewhere in this Agreement. The **CONTRACTOR** agrees that no expenditures claimed for reimbursement under this Agreement will be claimed for reimbursement under any other Agreement, grant or contract that the **CONTRACTOR** may hold which provides funding from **STATE** or federal sources. The **CONTRACTOR** further agrees to be liable for repayment of monies that the State's auditor reasonably determines, after an audit of the Contractor's accounts for this project, and after a consultation with Contractor, to have been mistakenly or wrongly paid to the Contractor for examination of expenditures:

- a) claimed by the **CONTRACTOR** for reimbursement under this Agreement; and/or
- b) submitted by the **CONTRACTOR** in meeting any cost participation (i.e., match) requirements.

In executing this Agreement, the **CONTRACTOR** acknowledges that it is serving as an independent **CONTRACTOR** performing services for the **DOT** paid for by the **DOT** with funding provided in part under a federal contract between the **DOT** and the federal government, the terms of which federal contract are hereby incorporated into and made a part of this Agreement. The **CONTRACTOR** specifically agrees that, in the performance of its activities under this Agreement, it will abide by all applicable federal requirements, including all applicable requirements in the said federal contract between the **DOT** and the federal government which the **DOT** specifically makes known to the **CONTRACTOR**. In the event that such federal contract terms conflict with the terms of this Agreement, the federal contract terms shall prevail.

## **Paragraph 3 - Disclosure and Certifications**

The **CONTRACTOR** has executed **Appendix III--Contractor Certification Form.**

## **Paragraph 4 - Contract Period**

The **CONTRACTOR** shall commence performance of this agreement on the February 1, 2014 and shall complete performance no later than January 31, 2015 with the option for four, one-year renewals subject to available funding, unless both parties mutually agree to extend the contract period or one or both parties terminate the Agreement prior to that day in accordance with other provisions of this Agreement.

In accordance with Chapter 37-2-54 (3) of the Rhode Island General Laws "no purchase or contract shall be binding on the **STATE** or any agency thereof unless approved by the Department of Administration." Authorization for the **CONTRACTOR** to proceed with the contract shall be in the form of a Purchase Order issued by the Department of Administration or, in urgent circumstances, a Letter of Authorization to Proceed issued by the Purchasing Agent in anticipation of the issuance of a Purchase Order.

#### **Paragraph 5 - Performance**

The **CONTRACTOR** shall, in a manner to be determined satisfactory at the sole and exclusive discretion of the **DOT** and **DEM** acting on behalf of the **STATE**, perform all obligations and duties required of Contractor as specified in Appendix I - Scope of Work, hereby incorporated by reference into this Agreement.

The **DOT** and **DEM** or their agents and if appropriate representative(s) of the federal government shall have the right at all times to inspect the work performed or being performed under this Agreement as well as the places where such work is performed; and to that end, **DOT** and **DEM** representative(s) shall be given reasonable access to all activities related to this Agreement.

#### **Paragraph 6 - Licenses and Permits**

The **CONTRACTOR** certifies that he possesses all licenses and permits required by Federal and State law and regulation as they pertain to the requirements of this Agreement as set forth herein. The **CONTRACTOR** shall maintain such required licenses and permits during the entire course of this Agreement and, should such licenses or permits lapse or be suspended, shall immediately inform the Contract Officer in writing of such circumstance. Failure to maintain proper licenses or comply with permit requirements is consider a material breach of this Agreement and may result in termination without notice.

#### **Paragraph 7 - Contract Officer**

The **DOT** shall appoint a Contract Officer to manage this contract as specified in Appendix IV--Contract Management. Such Contract Officer shall be the contact person for all matters regarding implementation of this Agreement. The **DOT** shall notify the **CONTRACTOR** in writing, immediately, should the Contract Officer be changed.

The **CONTRACTOR** and **DEM** agree to maintain close and continuing communication with the **DOT** Contract Officer, throughout the performance of work and services undertaken under the terms of the Agreement. The Contract Officer is responsible for assuring that all terms and conditions set forth in this Agreement and that all performance criteria are met before approving any payments made by the **STATE** to the **CONTRACTOR**.



## Paragraph 8 - Project Officers

The **CONTRACTOR** shall appoint a Project Officer, as specified in Appendix IV--Contract Management. Such Project Officer shall be the contact person for all matters regarding implementation of this Agreement. The **CONTRACTOR** shall notify the **DOT** in writing immediately should a significant problem arise regarding implementation of any material part of this Agreement or should a material change be necessary. No Project Officer shall be appointed by the **CONTRACTOR** without the written consent of the **DOT**.

**DEM** shall appoint a Project Officer, as specified in Appendix IV--Contract Management. Such Project Officer shall provide technical assistance to the **DOT** by overseeing and helping ensure the proper performance by **DEM** of all of its obligations under this Agreement, and by reviewing **CONTRACTOR** products for technical accuracy and compliance with Storm Water Phase II and notifying the Contract Officer of **DEM**'s findings. No payment shall be made by the **DOT** prior to **DEM**'s review and approval; however, **DEM** shall not be responsible for contract administration beyond technical review of products and notification of the **DOT** as described in this paragraph. The **DEM** shall notify the **DOT** in writing immediately should a problem arise regarding implementation of any part of this Agreement or should a change be necessary. No Project Officer shall be appointed by **DEM** without the written consent of the **DOT**.

## Paragraph 9 - Compensation

Total payment for services to be provided to the **CONTRACTOR** under this agreement shall not exceed Eight Hundred Fifty Thousand Dollars (\$851,300) subject to the availability of funds. The **CONTRACTOR** shall provide documentation and certification of matching expenses for the project in the amount of Zero Dollars (\$0). Changes shall not be implemented without prior written authorization and shall be made in accordance with the provisions of Paragraph 15 - Changes of this agreement. There shall be no payment to **DEM**.

Total value of this agreement may be subject to availability of funds to the **STATE**. Whether funding availability is reduced because of executive or legislative actions or because of any fiscal limitations not presently anticipated, the **STATE**, at its sole discretion, may reduce the value of a contract or eliminate the value of the contract as a whole, or may reduce or eliminate any budget line item(s) to accommodate funding availability amendments. The **CONTRACTOR** and **DEM** shall be notified in writing of such amendments after first being consulted and being given an opportunity to object to or provide comment on specific proposed amendments.

All payments shall be made in accordance with procedures established by the **STATE** Controller. Upon submission of an original signed invoice and documentation as required in accordance with provisions of Appendix V--Payments and Reports Schedule, **DEM** shall notify the **DOT** of the findings of its Project Officer technical review as described in Paragraph 8 and the **DOT** shall notify the Controller of the request for payment to the **CONTRACTOR**. The **CONTRACTOR** will complete and forward narrative and fiscal reports as per Appendix V--Payments and Reports Schedule.

Ten percent (10%) of the grant amount shall be withheld pending the completion and acceptance of tasks and products as described in **Appendix I--Scope of Work**. Failure to complete tasks or provide products in a timely manner may result in termination of this Agreement.

**Paragraph 10 - CONTRACTOR Liability for Reimbursement Denied to the STATE for Work Conducted Under this Agreement**

It is understood and agreed that in the event the CONTRACTOR receives payment for its expenditures related to its work under this Agreement and the STATE is later denied reimbursement by the federal government for those same expenses, due solely to the CONTRACTOR'S alleged failure to adhere to the applicable federal requirements made part of this Agreement, the CONTRACTOR shall refund those payments to the STATE, provided that (1) the federal government's decision was reasonable, (2) the CONTRACTOR's failure was not attributable to the negligent, mistaken or wrongful action or inaction of the STATE, and (3) if the CONTRACTOR or STATE reasonably believe the federal government's decision did not appear to be reasonable, the STATE utilizes all reasonable and available means to appeal or seek the reversal or modification of the federal government's decision.

**Paragraph 11- Fiscal Assurances**

The CONTRACTOR agrees to abide by **Appendix VI--Fiscal Assurances**. Failure to comply is considered a material breach of this Agreement and may result in immediate termination.

**Paragraph 12 - Accessibility and Retention of Records**

The CONTRACTOR agrees to make accessible and to maintain all fiscal and activity records relating to this Agreement to STATE and/or federal officials. This requirement is also intended to include any auditing, monitoring, and evaluation procedures, including on-site visits performed individually or jointly, by STATE or federal officials or their agents. Minutes of town council and board of directors meetings, fiscal records, and narrative records pertaining to activities performed will be retained for audit purposes for a period of at least three (3) years following the submission of the final expenditure report for this Agreement or, if audit funding has not been received at the end of the three (3) years, the records shall be retained until resolution of the audit findings are made.

**Paragraph 13 – Confidentiality of DOT Records**

The CONTRACTOR agrees to abide all federal and STATE laws and regulations governing the confidentiality of information to which the CONTRACTOR may have access pursuant to the terms of this Agreement. In addition, the CONTRACTOR agrees to recognize basic rights to privacy and to the confidentiality of personal information. (“Confidential records” are the records as defined in Section 38-2-3(d) (1) - (1 - 19) of the General Laws, entitled “Access to Public Record.”) Failure to abide by this paragraph will result in termination of this Agreement.

#### **Paragraph 14 - Termination of Agreement**

This Agreement may be terminated upon thirty (30) days written notice (delivered by certified mail, return receipt requested) by **DEM**, the **DOT** or the **CONTRACTOR**. In the event of termination by any party, all property and finished or unfinished documents, data, studies, and reports prepared by the **CONTRACTOR** under this Agreement, shall, at the option of **DOT**, become **STATE** property subject to a non-exclusive license retained by the **CONTRACTOR** for future use in its educational or research activities. Notice of the effective date of termination will include the reports that must be completed. The above mentioned thirty (30) day written notice notwithstanding, the **DOT** expressly reserves the unilateral right to terminate, amend and/or reduce services and payments under this agreement, effective immediately upon notice to the **CONTRACTOR** and **DEM**, in the event that the funding underlying the participation of **DOT** is limited or curtailed.

The **DOT** may terminate this agreement without notice in the event of material breach of the Agreement by **CONTRACTOR** or **DEM**.

#### **Paragraph 15 - Changes**

The **STATE** may permit changes in Appendix I—Scope of Work, time of performance, or approved budget of the **CONTRACTOR** to be performed hereunder. Such changes, which are mutually agreed upon by the **STATE** and the **CONTRACTOR**, must be in writing and shall be made a part of this agreement by numerically consecutive amendment and shall be issued by the **STATE** in the form of Change Orders. No amendment shall be valid until and unless approved by the Rhode Island Department of Administration in the form of Change Order to the Purchase Order established for this agreement.

#### **Paragraph 16 - Assignability**

The **CONTRACTOR** shall not subcontract or otherwise assign or novate any interest in this Agreement without **DOT'S** approval.

#### **Paragraph 17 - Subcontracts**

Any proposed subcontract under this Agreement shall be submitted to the **DOT** contract officer for approval prior to execution. To be valid, all subcontracts shall incorporate this grant agreement by reference and attachment. Subcontracting shall transfer all provisions of this grant agreement to subcontractors pursuant to the scope of work they are to perform. Notwithstanding, the **CONTRACTOR** shall remain liable to the **STATE** for all aspects of this Agreement. Failure to comply with the provisions of this article may result in denial of reimbursement for such nonapproved subcontractual services.

#### **Paragraph 18 - Partnership**

It is understood and agreed that nothing herein is intended or should be construed in any manner as creating or establishing the legal relation of partnership between the parties

hereto, or as constituting the employees, agents, or representatives of the **CONTRACTOR** included in this agreement as employee, agents, or representatives of the **DOT** or **DEM**.

#### **Paragraph 19 - Pecuniary Interest**

The **CONTRACTOR** covenants that it presently has no pecuniary interest and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. The **CONTRACTOR** further covenants that in the performance of this Agreement no person having any such interest shall be employed.

#### **Paragraph 20 - Intellectual Property, Equipment, Capital and Other Assets**

All equipment, property, management practices, finished or unfinished documents, computer software, data studies, and reports prepared or acquired by the **CONTRACTOR** under this Agreement and for which reimbursement was claimed under this Agreement shall, at the option of **DOT**, become the property of **STATE**.

The **CONTRACTOR** further understands and agrees to abide by federal regulations, requirements, and policies governing the disposition of equipment or property purchased with funds made available to the **CONTRACTOR** under this Agreement or with funds identified by the **CONTRACTOR** as matching expenditures under this Agreement. The **CONTRACTOR** agrees to maintain an equipment inventory list under this Agreement and to identify related equipment properly for inspection.

The **CONTRACTOR** agrees to operate, maintain and repair any management practices installed or equipment purchased pursuant to this Agreement, in accordance with state-of-the-art standards as approved by the **DEPARTMENT**, throughout their life. The **CONTRACTOR** agrees to provide the **DEPARTMENT** free and clear access to any such management practices and equipment for the purpose of inspection and monitoring.

#### **Paragraph 21 - Copyrights and Publicity**

The **DOT**, **DEM** and the **CONTRACTOR** shall retain permanent right to receive use and distribute copies of all documents and materials (hardcopy and digital formats) developed under this Agreement.

All printing, signage, advertising, publicity, or outreach materials distributed for the purpose of this grant will require prior review and approval by the **DOT** and **DEM** and must recognize the **DOT** and federal agencies as appropriate as a source of funding. Additionally, the **DOT** and **DEM** logo shall be prominently displayed where textual acknowledgements are included on materials produced for the purposes of this Agreement.

#### **Paragraph 22 - Use of recycled paper for printing**

All written correspondence, documents, reports and other printed materials for work

pursuant to this Agreement shall utilize nontoxic ink and recycled paper (minimum 20% post-consumer content) whenever practicable.

**Paragraph 23 – No liability for personal injuries**

Each party agrees that during the term of this Agreement each will keep and maintain, at their sole cost and expense, adequate insurance providing coverage for the activities and risks contemplated by this Agreement in such amounts and with such companies as are reasonably acceptable to the other and will further provide each other certificates of insurance in usual form evidencing such insurance coverage upon reasonable request which request shall not be made more than once a year. Each party will provide notice to the other prior to any cancellation or any change in the agreed upon insurance coverage which may be cause to termination of this Agreement.

Each party assumes any and all risks of liability for property damage and personal injury, including bodily injury and death, caused by the willful misconduct or negligent acts or omissions of themselves, and their respective officers, employees and agents.

**Paragraph 24 - Nondiscrimination in Employment and Services**

The **CONTRACTOR** agrees to comply with the requirements of Title VI of the Civil Rights Act Of 1964 (42 USC 200d et seq.); Section 504 of the Rehabilitation Act Of 1973, as amended (29 USC 794); Title IX of the Education Amendments of 1972 (20 USC 1681 et seq.); The United States Department of Health and Human Service Regulations found in 45 CFR, parts 80 and 84; and the United States Department of Education Implementing Regulations (34 CFR, parts 104 and 106); which prohibit discrimination on the basis of race, color, national origin, handicap, or sex, in acceptance for or provision of services, employment, or treatment in educational or other programs or activities.

The **CONTRACTOR** acknowledges receipt of **Appendix VII--Notice To Department Contractors Of Their Responsibilities Under Title VI Of The Civil Rights Act Of 1964** and **Appendix VIII--Notice To Department Contractors Of Their Responsibilities Under Section 504, Of The Rehabilitation Act Of 1973** incorporated herein by reference and made part of this Agreement.

The **CONTRACTOR** agrees to comply with all other provisions applicable to law, including the Americans with Disabilities act of 1990; the Governor's Executive Order No. 93-1, which prohibits discrimination on the basis of race, sex, age, national origin, sexual orientation, or disability; and the Governor's Executive Order No. 95-11, relating to sexual harassment.

Failure to comply with the provisions of this paragraph may be the basis for cancellation of this Agreement.

#### **Paragraph 25 – Fair Share for Procurement, Construction and Subcontracting**

The **CONTRACTOR** agrees to abide by **Appendix IX--Fair Share for Procurement, Construction and Subcontracting.**

#### **Paragraph 26 - Drug-free Workplace Policy**

The **CONTRACTOR** agrees to comply with the requirements of the Governor's Order No. 89-14 and The Federal Anti-Drug Abuse Act of 1988. As a condition of contracting with the **STATE**, the **CONTRACTOR** hereby agrees to abide by **Appendix X--Drug-Free Workplace Policy**, and in accordance therewith has executed **Appendix XI--Drug-Free Workplace Policy CONTRACTOR Certificate of Compliance.**

Furthermore, the **CONTRACTOR** agrees to submit to the **DOT** any report of forms which may periodically be required to determine the **CONTRACTOR**'s compliance with this policy.

The **CONTRACTOR** acknowledges that a violation of the drug-free workplace policy may, at the **STATE**'s option, result in termination of this Agreement.

#### **Paragraph 27 - Pro-Children Act of 1994 (Act)**

As a condition of contracting with the **STATE**, the **CONTRACTOR** hereby agrees to abide by **Appendix XIII - Certification Regarding Environmental Tobacco Smoke** and in accordance has executed **Appendix XIII - Certification Regarding Environmental Tobacco Smoke.**

#### **Paragraph 28 - Contractor Certificate of Compliance Regarding Hotel and Motel Safety**

As a condition of contracting with the **STATE**, the **CONTRACTOR** hereby agrees to abide by **Appendix XIV--Contractor Certificate of Compliance Regarding Hotel and Motel Safety.**

#### **Paragraph 29 - Debarment, Suspension and Other Responsibility Matters**

The **CONTRACTOR** agrees to abide by **Appendix XV - Certification Regarding Debarment, Suspension, and Other Responsibility Matters**, and in accordance has executed the required certification included in **Appendix XV--Certification Regarding Debarment, Suspension and Other Responsibility Matters--Primary Covered Transactions.**

#### **Paragraph 30 - Lobbying**

**CONTRACTOR** agrees to comply with all federal laws restricting and/or limiting lobbying activities of recipients of federal funds including but not limited to 31 U.S.C. Section 1352 and Section 503 of the Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act (Public Law 104-209).

**Paragraph 31 - Campaign Contributions**

Pursuant to Rhode Island General Law 17-27, all contractors must file campaign contribution affidavits when the cumulative annual value of all State contracts to a vendor exceeds \$5000. Affidavits may be obtained at the Rhode Island Board of Elections.

**Paragraph 32 - Severability**

If any provision of this Agreement is held invalid, the remainder of this Agreement shall not be affected thereby if such remainder would then continue to conform to the terms and requirements of applicable law.

**Paragraph 33 - Appendices**

Attached hereto and made part of this Agreement are the following appendices:

Appendix I	Scope of Work
Appendix II	Budget Forms
Appendix III	Contractor Certification Form
Appendix IV	Contract Management
Appendix V	Payments and Reports Schedule
Appendix VI	Fiscal Assurances
Appendix VII	Notice to Department Contractors of Their Responsibilities Under Title VI of The Civil Rights Act of 1964
Appendix VIII	Notice to Department Contractors of Their Responsibilities Under Section 504 of the Rehabilitation Act of 1973
Appendix IX	Contractor Responsibilities Regarding Fair Share for Procurement, Construction and Subcontracting
Appendix X	Drug-Free Workplace Policy
Appendix XI	Drug-Free Workplace Policy Contractor Certificate of Compliance
Appendix XII	Drug-Free Workplace Policy Subcontractor Certificate of Compliance
Appendix XIII	Contractor Certificate of Compliance Regarding Environmental Tobacco Smoke
Appendix XIV	Contractor Certificate of Compliance Regarding Hotel and Motel Safety
Appendix XV	Certification Regarding Debarment, Suspension, And Other Responsibility Matters - Primary Covered Transactions



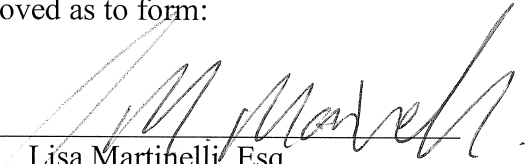
IN WITNESS THEREOF, the parties, through their duly authorized representatives have executed this Agreement on the 12 June day of, 2014 A.D.

**RI DEPARTMENT OF TRANSPORTATION**


Recommended for Approval:

By:   
Kazem Farhoumand PE  
Chief Engineer

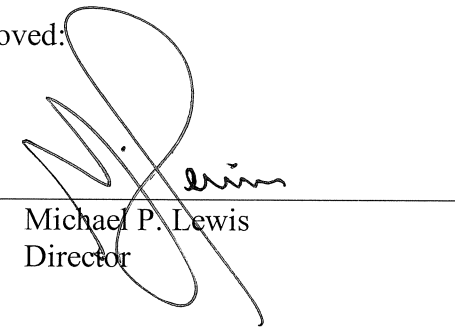
Approved as to form:

By:   
Lisa Martinelli, Esq.  
Executive Counsel

Approved:

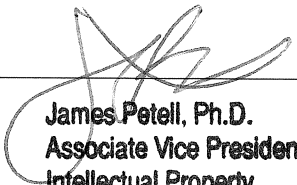
By:   
Phillip Kydd  
Deputy Director

Approved:

By:   
Michael P. Lewis  
Director

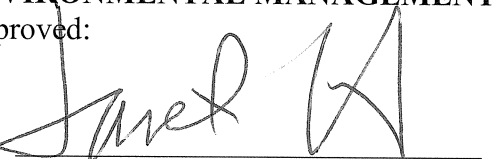
**UNIVERSITY OF RHODE ISLAND**

Approved:

By:   
James Petell, Ph.D.  
Associate Vice President  
Intellectual Property  
Management & Commercialization

**RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

Approved:

By:   
Janet Coit  
Director



## Appendix I Scope of Work Revised

### **TITLE: Storm Water Phase II Public Outreach, Education, Involvement and Participation**

#### **PROBLEM / NEED**

Under the Storm Water Phase II regulations, the Rhode Island Department of Transportation (DOT) is required to undertake and maintain ongoing public education and outreach on preventing stormwater pollution, and to actively involve the public in carrying out its stormwater management program plan. DOT believes that many aspects of these initiatives will be most efficiently developed and implemented via a contract for services. The University of Rhode Island Cooperative Extension (URI) has successfully provided public outreach, education, involvement and participation on water quality issues to municipalities and the general public for many years and has developed a high degree of expertise in this arena.

In addition, URI has developed the award-winning stormwater education program known as RI Stormwater Solutions under contract to DOT, in partnership with the Rhode Island Department of Environmental Management (DEM) and a diverse group of municipal, state, business, and non-profit partners. From 2005 to 2011, the Stormwater Solutions project has directly assisted DOT and other owners of Municipal Separate Storm Sewer Systems (MS4s) to meet Phase II permit requirements for Public Education and Involvement. This scope of work is designed to maintain and expand public education and involvement activities under the Stormwater Solutions project, in support of DOT's stormwater management program.

#### **PURPOSE**

The purpose of this project is to contract URI for services to establish continued DOT compliance with their obligations under the Rhode Island Pollutant Discharge Elimination System (RIPDES) General Permit for Storm Water Discharges for the *Public Education and Outreach* minimum measure. This project will also establish compliance with the following aspects of the *Public Involvement and Participation* minimum measure that are related to public outreach and education of the Storm Water Phase II general permit:

- Identification of target audiences (Item IV.B.2.b.2 (i)).
- Description of public involvement activities (Item IV.B.2.b.2 (ii)).
- Evaluation of success (Item IV.B.2.b.4).

DEM will, in addition to its other roles and responsibilities as specified in this Scope of Work, provide technical assistance to DOT by reviewing URI's deliverables for technical accuracy and compliance with Storm Water Phase II to achieve approval. After reviewing deliverables, DEM will forward their findings to DOT. No payment shall be made by DOT prior to DEM's review and approval; however, DEM shall be responsible for no contract administration beyond technical review of deliverables and notification to DOT of acceptability for payment.

In undertaking this effort, DOT anticipates that a number of very valuable public education and outreach tools will be produced that will be applicable to the Storm Water Phase II needs of Rhode Island municipalities and will enable the general public to prevent stormwater pollution.

## **GENERAL PROJECT PLAN**

DOT and DEM will contract with URI to establish and describe the roles and responsibilities of URI, as well as those of DEM and other parties, relating to the performance of the scope of services described below.

These activities, combined with other initiatives by DOT, will fully comply with the *Public Education and Outreach* and *Public Involvement* and Participation minimum measures of the Storm Water Phase II program.

This project plan has been developed with extensive input from State agency partners, regulated municipalities and other MS4s, engineering and planning professionals, and nonprofit organizations involved in stormwater outreach. Their input on outreach and training needs has been gathered through discussions between DEM and local stormwater managers on Phase II permit issues, numerous workshop evaluations, and surveys of stormwater managers, including a 2012 survey used as a basis for this project plan.

## **A. STATE, MUNICIPAL AND PRIVATE SECTOR TRAINING AND TECHNICAL SUPPORT**

### **TASK A-1 MS4 Workshops on Stormwater Manual Updates and Policies**

#### **Overview**

This task will provide continued training and technical support on proper use of and compliance with the RI Storm Water Design and Installation Standards Manual. This will build on introductory workshops organized under the RI Stormwater Solutions project following release of the Manual in December, 2010 through January, 2012. The initial 4-part workshop series attracted 577 attendees, including stormwater managers from all 39 RI municipalities, other MS4s, designers, and project reviewers. In addition, more than 100 individuals participated in two specialized workshops for DOT staff and consultants on designing LID for linear transportation projects.

Given the introductory nature of the previous workshops, the DEM anticipates the need for continued training to address technical questions and policy issues that arise as the manual is used. Results of URI workshop evaluations and surveys of MS4 operators clearly document the need for continued support in applying the manual. The training topics most frequently listed as high priority included: clarification of state and local responsibilities, procedures for inspection and maintenance of LID practices, information on manual updates and policies, and more in-depth training in applying the standards using problem solving exercises. Notably, there was also widespread interest in meeting these information needs through new guidance documents and instructions rather than workshops. This task is designed to address these priority topics using a variety of training methods and /or guidance documents. In cases where a meeting or workshop is determined to be the most effective approach, these will be in group settings small enough to promote interaction and discussion rather than large auditoriums.

#### **Training Topics**

The annual training schedule will be determined by DEM and DOT with input from other MS4s. At a minimum, the following training topics, which have been identified as priorities by agency partners and MS4 stormwater managers, will be considered:

#### MS4 Training Priorities Statewide

- Manual updates and amendments, including revised technical standards, supporting guidance in applying the standards, and updated permit review and approval procedures
- State and local permit coordination in using the manual. Examples include: state and local permit coordination on linear transportation projects, state and local permit coordination on projects subject to municipal review such as development of single family lots, subdivisions and other land development projects, redevelopment projects, and coordination of State stormwater, wetlands and OWTS permits
- Technical details for linear LID transportation projects by DOT and municipalities
- Policies for applicability of stormwater manual standards to typical municipal /DOT projects
- Procedures for inspection and maintenance of post-construction stormwater facilities, including methods for promoting and enforcing compliance. When available, the inspection and maintenance manual developed under Task A-2 will be used in training on this topic.

#### MS4 Training Priorities for Critical Resources

These areas may include impaired waters, Special Resource Protection Waters, cold water fisheries, CRMC Special Area Management Plan (SAMP) areas, and other locally-identified critical water resources.

- Designing LID for no-net increase in TMDL pollutants, with supporting hydrologic /nutrient loading calculations
- Designing LID for difficult sites (shallow groundwater, small lots, etc.)

#### **Tasks**

URI will provide support to DEM in organizing training for municipalities, DOT and other manual users on applying the RI Stormwater Manual, focusing on manual updates, policies and current topics.

DEM will assume the lead role in developing educational materials and conducting training on the manual. DEM may seek assistance from DOT, other agency staff, stormwater managers, municipal planners and other professionals on specialized topics as needed.

DEM and URI will work closely with DOT to address DOT training needs and schedules of DOT staff and consultants to the extent possible. Training and technical assistance may be delivered using a variety of formats such as meetings, work sessions, webinars and workshops. In general, these will be half day programs or shorter. All events will be designed to promote discussion and active participation to the extent possible. For the later stages of the project, an annual RI stormwater management conference may be considered, with invited speakers showcasing LID project examples and lessons learned using the RI Stormwater Standards Manual and related LID guidance.

URI responsibilities will be based on DEM needs, to include the following:

- Support workshop planning. This will include development of an annual training work plan, agenda review, and assistance in outlining training modules.
- Coordinate with MS4s and other stakeholders in developing workshops and supporting educational materials. Workshops will be developed with input from project partners and planning committees as needed.
- Develop workshop materials and provide logistical support including: workshop flyers, agendas and other notices distributed primarily through electronic news, manage registrations, coordinate with speakers and attendees, organize meeting arrangements and other logistics, and evaluate training results using pre- and post- workshop testing where appropriate.
- Manage subcontracts with trainers and/or reimburse speakers expenses for workshop preparation, travel and related expenses where funds are budgeted for this purpose, with assistance from the Southern Rhode Island Conservation District as needed.
- Maintain workshop website. All workshop materials including flyers and registration forms, presentations, handouts, and other supporting educational materials, will be made easily accessible via the [ristormwatersolutions.org](http://ristormwatersolutions.org) website, maintained by RI NEMO. Where appropriate, the URI Coastal Institute will assist in coordinating educational and outreach efforts with statewide coastal management initiatives carried out under the umbrella of the Coastal Institute.
- Coordinate with the URI T2 Center to co-sponsor and assist with training where possible.
- URI may charge registration fees to offset training expenses not included in the budget for this task, including but not limited to, travel expenses for presenters, refreshments, meeting room and audio visual fees, printing, and other expenses. Where registration fees are necessary to cover expenses, a sliding fee scale and/or incentives will be offered to state, local and nonprofit organizations.

**Trainers:** DEM/CRMC staff; other professionals to be identified based on workshop topic. URI will coordinate with T2 Center to provide training to appropriate audiences.

**Format:** To be Determined (TBD); May be conducted through meetings, presentations, training sessions with practice exercises, or guidance documents. An annual RI stormwater meeting may be considered in later stage of the project with speakers showcasing LID project examples and lessons learned using the RI Standards Manual or related LID guidance.

**Lead / Support:** DEM /URI

**Deliverables:**

- 1 - 3 workshops annually (determined by DEM)
- Annual schedule of stormwater manual workshops developed and incorporated into project work plan, to include: topic(s), target audience, preliminary format, trainers, supporting educational materials needed, and responsibilities
- Coordination with MS4s, including opportunity to comment on training topics annually, and to participate in workshop planning on an ad hoc basis
- Draft and final workshop agendas and training modules including presentations, handouts, and exercises

- Workshop organization, publicity and registration including: workshop flyer, electronic notices and other publicity, website, registration, communication with speakers and attendees, meeting room arrangements, refreshments and other logistics, and training evaluation.
- Workshop conducted, educational materials revised as needed
- Training evaluation completed and workshop materials posted to website

## **TASK A-2 Inspection and Maintenance Manual for Post Construction Stormwater Facilities**

### **Overview**

Inspection and maintenance of post-construction stormwater facilities, particular for LID practices, was consistently reported as the chief concern of all those attending stormwater manual training. Among MS4 stormwater managers, 87% ranked inspection and maintenance procedures as the important topic for future training. These groups expressed a need for guidance in how to conduct inspections and maintenance, and how to promote and enforce compliance with maintenance requirements.

To meet these needs, URI will provide assistance to DEM and DOT in developing an inspection and maintenance manual for post construction stormwater best management practices. The manual will be designed as **templates** that can be easily customized for various types of stormwater best management practices (BMPs) based on site specific landscape features. The templates will address inspection and maintenance activities and procedures to promote and enforce compliance. Supporting instructions and educational materials for MS4 staff and BMP owners will be included. The need to create different templates for use with linear transportation projects versus other commercial and residential development projects will be considered and prepared if needed. Training and practice in using the templates will be provided under Task A-1 of this project.

Similar to the Stormwater Standards Manual, we expect the Inspection and Maintenance Manual will be a state document, with DEM and CRMC as “owners” and responsible for future updates. URI will be responsible for managing development of the manual with active involvement of project partners (DEM, CRMC, and DOT). An advisory committee of MS4 representatives, consulting professionals, and others will be formed to provide guidance in scoping the manual, identifying available inspection and maintenance resources, and reviewing manual drafts. DEM and CRMC, with support from DOT, will be responsible for the technical accuracy of the inspection and maintenance procedures.

We expect that the manual can be developed with in-house expertise at state agencies and URI support. However, the assistance of a professional contractor will help ensure that the final manual addresses a range of post-construction practices, meets needs of DOT and other MS4s, and is designed in a user-friendly format with sufficient guidance for users. We expect that the final product will help overcome resistance to use of LID due to maintenance concerns. Because EPA is also committed to promoting use of LID and Green Infrastructure, we will coordinate development of the manual with EPA Region 1. In addition, we will seek EPA assistance to develop the manual as a model for other Phase II programs beyond Rhode Island.

### **Task A-2.1 Coordinate manual development with MS4s and EPA Region 1**

URI will coordinate development of the manual with support by DEM, DOT, CRMC, and EPA Region 1 where possible. MS4s, private sector professionals, and others will be invited to participate in review and development of the materials at key decision points.

### **Task A-2.2 Collect and review existing resources**

Manuals and related inspection, maintenance and enforcement procedures will be collected and evaluated. The focus will be on readily available information and well established methods that may be practical for use in RI. Materials will be collected by a general web search and requests to MS4s, UNH stormwater center, and stormwater professionals. This is a short term effort, and not a comprehensive search.

### **Task A-2.3 Outline manual contents**

URI will evaluate collected materials, select models for RI, and outline the contents of the manual and its use, considering the following features:

- **Scope of manual.** At a minimum the manual will address post construction stormwater management facilities focusing on nonstructural LID (stormwater credit) practices and structural treatment practices for water quality control specified within the RI Stormwater Manual. The need to include pretreatment practices, storage practices for water quantity control, and pre-existing drainage system components will be determined by DEM and DOT.
- **Manual format.** The main body of the manual will be the inspection and maintenance templates with inspection checklists, schedules, and maintenance reporting forms. The templates will be easily customized, similar to the RI Model SWPPP, based on factors such as BMP design, site conditions, and any specialized maintenance requirements. Other supporting information may include, for example, instructions in troubleshooting typical problems and corrective maintenance measures.
- **Procedures for communication and enforcement.** The manual will include procedures to promote proper inspection and maintenance, and to enforce compliance with such requirements. In determining the scope of work, the need to develop different templates based on the local, State, or non-traditional MS4 responsible for project approval and enforcement, and type of BMP owner.
- **Residential LID.** The need to simplify inspection and maintenance materials for residential properties will be considered, including individual lots with rain gardens or other small scale practices. Separate templates may also be needed for homeowners associations who own for drainage systems, particularly in procedures MS4s can use to communicate with these groups and support compliance.
- **Regulatory authority.** DEM and CRMC will determine if the inspection and maintenance manual is adopted as enforceable regulatory standards or provided only as technical guidance.

### **Task A-2.4 Prepare draft and final manual**

URI will coordinate development of the manual with assistance from agency partners. The final will incorporate input from MS4s, consultants, and agency staff to address both technical issues and enforcement procedures. Preparation of the final manual will include final editing, revisions to graphics, design and layout, and final production of the document for publication. The manual will be designed as a printable document. On-line access in a format optimized for mobile devices will be considered.

### **Task A-2.5 Distribute the final inspection and maintenance manual**

The manual will be made available through the DEM website with links from other state agency sites and URI. Supporting materials will be prepared including a summary factsheet on the manual, with publicity on



release of the manual provided by agency partners and URI. Training in use of the inspection and maintenance manual will be developed and conducted under Task A-1 of this project as needed.

**Lead / Support:** URI / DEM

**Deliverables:**

- Meeting agendas and notes, record of communication with MS4s
- Summary of inspection and maintenance resources
- Table of contents outlined
- Draft and final manual developed with input from MS4s
- Final manual produced and distributed as printable document and online access

**TASK A-3 Outreach and Training in Use of the Revised RI Soil Erosion and Sediment Control Handbook**

The RI State Conservation Committee (RI SCC) has agreed to a major revision of the RI Erosion and Sediment Control Handbook. The revision is currently underway, spearheaded by the Rhode Island Resource Conservation and Development (RC&D) Council, in cooperation with an expert review panel composed of private sector volunteers and government agency staff representing DOT, DEM and CRMC. The revised handbook is based on a number of reference materials, including, but not limited to the 2002 Connecticut Erosion and Sediment Control Guidelines, the 2005 New York State Standards and Specifications for Erosion and Sediment Control, and other state manuals and documents.

The Southern Rhode Island Conservation District (SRICD) is managing this project, with funds provided by the USDA Natural Resources Conservation Service, through the end of March, 2013. There are no other funds to support the project after this point. Since March, the volunteer committee has proceeded with the review process and final edits with support from agency staff, primarily DOT and DEM. The release of the final revised Handbook is scheduled for March, 2014.

Under this task we propose to distribute the revised RI Erosion and Sediment Control Handbook, develop an outreach and training program in use of the updated Handbook: and develop a condensed field guide for contractors and field inspectors. The Southern Rhode Island Conservation District (SRICD) will have primary responsibility for completing this work, under sub-contract to URI, with support from URI and agency partners as needed.

**Task A-3.1 Distribute the revised erosion and sediment control handbook**

- After the completion of the public review comment period and final edits, develop the final Handbook as a printable document to be viewed and downloaded from the RI DEM website. It is expected this may require limited final revisions to graphics, design and layout. The possibility of printing a small number of handbooks will be considered based on needs of agency staff and printing costs.
- Finalize the RI DEM website as the central location for public access to the Handbook, related documents, and future revisions. The RI State Conservation Committee and RI DEM will cooperate to maintain and update the handbook with notification of future revisions managed

through subscription to a list serve made available to those accessing the Handbook. The website will include and /or link to existing resources for construction site stormwater control and permit compliance, including links to the RI model SWPPP, the RI Construction Site Stormwater Compliance Self-Certification Program, and other supporting materials developed under this project. Information on workshops and supporting training materials will continue to be made available through the RIstormwaterSolutions.org site with links to this website and others sites as appropriate.

- Publicize availability of the Handbook via press releases, e-news, professional newsletters, etc., in cooperation with the review panel and state agencies. The SRICD will engage industry professionals and organizations, both public and private, to assist in this publicity. This task will include development of a factsheet summarizing key features of the Handbook.

### **Task A-3.2 Develop a training program in use of the Erosion and Sediment Control Handbook**

The goal of the training program is to build practical skills in using the updated and new control measures and in complying with new procedures presented in the updated Handbook. The program will be designed to provide a basic overview of the Handbook for all users in the first year of the project, highlighting the following topics. In subsequent years, basic training will continue as needed, with additional training developed and conducted on specialized topics or for specific audiences.

#### **Topics**

- New and updated features of the revised Handbook
- Proper implementation of new site planning techniques, housekeeping and control measures
- State and local permit coordination
- Procedures for inspection, maintenance and enforcement
- Use of the RI Model SWPPP (or Soil Erosion and Sediment Control plan).
- Implementation of the RI Construction Site Stormwater Compliance Self-Certification Program (Environmental Results Program, or ERP) at DOT construction sites and projects subject to municipal review

To the extent possible, the training will be customized to suit key audiences such as MS4 construction site inspectors and plan reviewers, DOT staff and their contractors in applying the Handbook to linear projects, and other contractors responsible for installing and maintaining erosion controls.

Field training may be held to demonstrate and/or provide practice installing new types of erosion control measures. Condensed training will also be considered for municipal officials, project managers, and builders responsible for small residential sites. The opportunity to link training to existing professional certification programs for site inspectors will be explored.

#### **Tasks**

- Organize and coordinate with an advisory review committee to guide design of the training program. Members of the existing Handbook committee will be invited to participate, with new members recruited as appropriate. It is likely that subcommittees will be formed to plan individual training programs.

- Compile information on existing erosion and sediment control (ESC) training and certification programs, including but not limited to those offered by the Massachusetts Association of Conservation Commissions, T2 Centers, Maine DEP, NC State University, CPESC Inc., the IECA, and other government /professional organizations.
- Draft the training plan. The plan will establish the scope of training, target audiences, training objectives and evaluation methods, format of each program, and preliminary schedule of training. For each program, the plan will identify supporting guidance and educational materials needed, co-sponsors, trainers, and potential locations. Training programs for MS4s and DOT will be designed with input from the URI T2 Center and with their co-sponsorship where possible. Options for creating a self-sustaining training program will be considered, including opportunities to partner with entities currently offering training in ESC and related stormwater topics.

At a minimum, the following training modules will be considered:

- Basic training module for MS4 field inspectors, plan reviewers and contractors;
- Training for DOT field inspectors and contractors in installing, maintaining and inspecting erosion and sediment controls during active construction, possibly as field training. This will be coordinated with specialized DOT training under Task A-5.
- Brief “tailgate” training for construction contractors and MS4 public works staff, with educational materials for participants and trainers.
- Condensed training for municipal officials, board and commission members, and project managers. This module will include educational materials for their use, such as:
  - o Recommended procedures for pre-construction meetings with contractors with supporting educational materials
  - o Summary of basic erosion and sediment control practices used on residential lots for those applying for building permits and land development projects
  - o Factsheet on application requirements for property owners and builders seeking a building permit for small residential sites
  - o Factsheet for municipal officials on local responsibilities in applying the Handbook and procedures for state/local permit coordination
- Finalize the plan with input from project partners and MS4s as needed. Incorporate the plan into the project work plan and update the training schedule annually.

### **Task A-3.3 Develop training modules and conduct training**

- Select staff and/or contractors. The SRICD will identify qualified professionals available to develop the training modules based on the completed training plans and to conduct training. The training may be conducted by members of the Handbook advisory review committee and state agency staff. Where additional assistance is necessary, the SRICD will be responsible preparing a request for proposals for a contractor and/or conducting a search for a temporary employee to assist in this task. For workshops sponsored by the T2 Center, the SRICD will be responsible for applying to the T2 Center for support to cover trainer’s expenses, in developing training materials, and in delivering the program.
- Develop modules and conduct training. For each training program, the module will include all presentations, handouts, exercises, factsheets, and other supporting materials. These will be designed to build skills in using updated measures and procedures, specifically for each target audience. To the extent possible, training methods will be designed to actively engage trainees in active learning, using interactive techniques throughout the program.

- Seek input from the advisory committee at each stage in developing the training program, to include:
  - For each program, prepare draft agendas, training modules, and schedule
  - Finalize the agenda, workshop schedule, and complete training module to include presentations, exercises, handouts, and other supporting educational materials
  - Organize the workshops to include: workshop flyer and e-news, publicity, workshop website, registration, meeting arrangements, coordination with trainers and registrants, training evaluations, and other logistical support. URI will provide assistance in this task.
  - Make all training materials available online for easy access and use before each program
  - Conduct training program(s).
  - Modify training modules as needed based on feedback from the review committee, trainers, and results of workshop evaluations. For each program, prepare a trainer's module with additional resources needed to plan and deliver the program.

**Task A-3.4 Develop a Field Guide to Erosion and Sediment Control**

The purpose of the Field Guide is to offer a quick reference on proper installation, inspection, maintenance and trouble-shooting of erosion and sediment controls for field staff, primarily field inspectors and supervisors. The guide will be developed in the final year of the project if needed, based on DOT and DEM priorities and interest by Handbook users. Workshop evaluations conducted under Task A-3.3 will be used to survey inspectors and others on potential use of the field guide and key features needed. Waiting until the final year will also allow time for any corrections or updates to the Handbook that might be needed.

- Collect and review examples of existing field guides, including those developed by the MA Association of Conservation Commissions, University of Minnesota, and CT, NC and KY state agencies. Search for examples designed for mobile devices.
- Survey handbook users on need for field guide through workshop evaluations. Identify key information needed, type of mobile devices used, and most useful format considering online format optimized for mobile devices, downloadable pdf, and printed guide.
- Outline contents and select format with input from the review panel and considering costs to develop, update and distribute.
- Prepare the draft and final guide, and produce in final format(s). If web access version is used, conduct usability testing at draft stage.
- Distribute the Field Guide. Prepare summary information about the guide and publicize its availability. Update the training modules to address use of the field guide as needed.

**Trainers:** TBD; may be conducted by state agency staff and members of the advisory review committee.

**Lead / Support:** SRICD / DEM, DOT, URI, Advisory Committee,

**Deliverables:**

**Year 1**

- Final Handbook produced and distributed
- Publicity and summary factsheet on the Handbook
- Summary of existing erosion and sediment control training programs

- Training plan with schedule and outline of training modules
- Complete basic training modules for 3-4 types of programs, with all supporting educational materials, considering:
  - Handbook overview for MS4 field inspectors, plan reviewers and contractors
  - Handbook overview customized for DOT field inspectors and contractors
  - Condensed training for municipal officials and project managers
- Field guide produced if needed

#### **Years 2 - 5**

- Training schedule developed and minimum of 3 training programs completed annually. Basic program offered as needed. Specialized programs by topic and audience developed and conducted as needed, considering for example, “Tailgate” training for construction contractors and MS4 public works staff, and use of Field Guide for inspectors.

### **TASK A-4 Model Ordinances, Technical Support, and Training to Incorporate RI Stormwater Standards in Municipal Ordinances and Regulations**

#### **Overview**

The purpose of this task is to enable RI municipalities to apply the RI Stormwater Manual standards to land development activities subject to municipal approval, including small projects not regulated by DEM or CRMC. This task will support compliance with the MS4 general permit for post construction stormwater management by providing direct assistance to municipalities in updating land use standards, and by providing consistent, peer-reviewed ordinance language for use by all MS4s in updating ordinances. The major sub-tasks include the following:

- Develop model language and supporting guidance for planners to apply the RI Stormwater Manual standards in local ordinances and regulations, focusing on excerpts that can be inserted into existing codes.
- Work directly with selected communities to review local ordinances and draft recommended updates, using the model provisions as a guide.
- Provide municipal officials with training and educational materials to support adoption of LID ordinances in all communities throughout the state.

#### **Need for Local Ordinance Updates**

RI Municipalities are required by their MS4 permit to have applicants for local permits adhere to the RI Stormwater Design and Installation Standards Manual (as noted in Section 1.2 of the Manual). At a minimum, the permit requires MS4s to manage runoff from new and redevelopment projects disturbing one or more acres, including projects less than one acre that are part of a larger common plan of development or sale. Most, if not all MS4s currently require use of the RI Stormwater Manual in design of subdivisions and other land development projects. However, these references alone are not sufficient for the following reasons:

- The RI Stormwater Manual establishes Low Impact Development (LID) as the primary method to avoid and reduce stormwater runoff impacts to the maximum extent practicable, beginning with LID Site Planning and Design Strategies as the first minimum standard. To meet this standard,

municipalities must review land development standards that can generate excessive runoff, and revise these to incorporate current LID practices. This includes for example, roadway and parking design, clearing and grading standards, landscaping requirements, and wetland buffer setbacks. These standards are not found in one ordinance, but are embedded in Zoning ordinances, Subdivision and Land Development Regulations, and other stand-alone ordinances.

- Use of the RI Manual on small sites needs to be addressed. The Stormwater Manual clearly notes that the design and installation standards are not only for subdivisions and other land development projects but “should be applied to the maximum extent practicable for single-family lots of record” (Section 1.2). The RI Stormwater Management Guidance for Individual Single-Family Residential Lot Guidance should also be referenced where appropriate.
- Application review procedures need to address stormwater planning in early stages of project review. This should begin with soils-based site assessment at pre-application review, and site planning in early master plan review phase. In many local ordinances, LID may not be addressed at all and drainage plans are typically required only much later, with development of preliminary engineering plans.
- Municipalities must ensure consistency between local and state standards. For example, in cases where local regulations specify design storms for flood control or infiltration volumes, the local provisions must at least meet state standards.
- Local policies and standards are needed on applying the Manual in critical areas. The Manual establishes minimum standards and clearly notes that higher levels of stormwater treatment may be needed cold-water fisheries, special resource protection waters, and impaired waters. In addition, areas with approved TMDLs, the MS4 is responsible for preventing any increase in the pollutant of concern to waterbodies with an approved TMDL, which may require more stringent standards than the state minimum.
- Effective local procedures are needed for long term stormwater system inspection and maintenance Existing procedures need to be reviewed, updated as needed, and incorporated into local ordinances and regulations consistent with the RI Manual standards.
- Procedures are needed for coordination of local and State storm water management permits, and referrals for enforcement action. This includes situations where municipal and DOT drainage systems are interconnected.

### **Approach**

To address these needs, we will work directly with municipalities to update land use standards. A consulting professional planner(s) will be hired to lead this effort, with support by stormwater design/engineering professionals as necessary. Providing direct technical assistance was selected as the most effective strategy based on surveys of MS4 stormwater managers, who clearly expressed a strong preference in two areas: 1) Assistance in applying the RI standards, rather than training alone; and 2) Technical guidance in applying the standards, including procedures to enforce compliance. Development of consistent, peer-reviewed ordinance language created under this task will provide the specific guidance all RI communities need to apply the updated storm water standards, including those not receiving direct assistance in ordinance review.

#### **Task A-4.1 Organize an advisory committee and develop a work plan**

The committee will provide guidance and oversight in project development and will consist of project partners, municipal planners, and other interested professionals. Ad hoc subcommittees will be formed as needed for each subtask to ensure diverse interests are represented, including for example, developers and builders, consulting engineers, and building inspectors.

Specific roles and responsibilities of participants will be determined in discussion with the group but will include: assistance in collecting local ordinance examples, review of draft products and outreach methods, advising on the process of selecting and working with municipalities to update ordinances, workshop planning, development of educational materials, and assistance in publicizing the project and distributing results.

- DEM and CRMC staff will provide technical review of proposed local stormwater standards and make recommendations to ensure consistency with the RI Manual. In addition, agency staff will assist in developing procedures for state and local permit coordination, and for inspection and maintenance of stormwater facilities, including referrals for enforcement where state and local drainage systems are interconnected.
- Refine scope of work with input from the advisory committee. The scope of work will address issues such as: types of stormwater ordinances and standards to be reviewed, suitability of readily available example ordinances, communication with MS4s, priority for direct technical assistance considering watershed types and pollution prevention benefits with future growth and redevelopment; procedures for selecting participating communities; extent of technical assistance provided, responsibilities of participating municipalities; and design of training workshops and educational materials. The work plan will be updated annually.
- Contract with a consulting professional planner. URI will be responsible for managing the contract with the consulting planner, with assistance from the SRICD as needed. The consultant will lead development of the model ordinance provisions, prepare draft agreements with municipal officials receiving technical assistance, and complete ordinance reviews and recommended updates working directly with town staff and/or boards with support from RI NEMO. DEM and CRMC will provide assistance as needed. In addition, the consultant will assist with workshop planning and delivery under Task A-3.4 and review of educational materials to support implementation of stormwater ordinances under Task A-3.5.

#### **Task A-4.2 Develop model language for local plans, ordinances and regulations**

Development of consistent, peer-reviewed ordinance language will provide a standard reference for the planning consultant and project staff conducting the ordinance reviews, as well as for municipal staff doing this work on their own.

- Collect example ordinances and model language for local stormwater management. This will focus on excerpts to be included within subdivision and land development regulations and zoning, with secondary attention to local plans and other ordinances. A survey of RI planners may be used to identify the most current and complete examples, as well as innovative methods used to manage stormwater impacts on critical resources. Other readily available examples from MA, CT and other sources will be considered as needed. This review will center on the following three major areas:

- (1) LID site planning and design strategies. The Rhode Island Low Impact Development Site Planning and Design Guidance Manual (DEM, 2011) will be used in this review, with the emphasis on simple changes that can be easily implemented, including site clearing and grading standards, roadway design, parking guidance and landscaping standards. Other special purpose ordinances may be addressed such as riparian buffers and impervious cover standards, depending on local priorities and as resources permit.
  
- (2) Incorporating the RI Stormwater Design and Installation Standards Manual in local ordinances and regulations. This review will address issues such as:
  - Appropriate references to the RI Standards Manual
  - Incorporating LID site planning requirements in early project review, including site assessment Application checklists (consistent with appendix A of the RI Standards Manual) for land development projects, building permits, and zoning approvals
  - Types of local land development applications where the RI Standards Manual and/or RI Stormwater Management Guidance for Individual Single-Family Residential Lot Development should be used. This will include all new construction and redevelopment on sites disturbing 1 acre and greater, and may include sites disturbing less than one acre depending on the type of activity and/or its location.
  - Types of activities and locations where more protective local stormwater management standards such as no-net increase in stormwater pollutants, volume controls or redevelopment triggers, are needed to protect critical water resources, restore impaired waters, or control localized flooding.
  - Coordinating local permit review with DEM, CRMC and DOT, including pre-treatment of runoff on sites draining to state-owned storm drains
  - Ensuring use of LID for land disturbance activities and landscape care on property owned and managed by MS4s
  
- (3) Stormwater System Inspection and Maintenance Ordinance. Standards and procedures for post-construction stormwater system inspection and maintenance will be collected and reviewed. Where available, this will include examples for different types of BMP owners, including commercial, single family residential, homeowner associations, and public properties owned by municipalities and other MS4s.
  - DEM will be responsible for determining the adequacy of the model stormwater management ordinance provided to MS4s early in the Phase II program.
  - This task will be coordinated with development of the inspection, maintenance and enforcement procedures under Task A-2., which we expect will provide the primary guidance for local ordinances on this topic.
  - The need to make stormwater system inspection and maintenance procedures available as either a model ordinance or as excerpts for use in subdivision regulations and zoning will be based on input from the advisory committee members.
  
- Identify need for ordinance updates on construction site stormwater management based on the revised RI Erosion and Sediment Control Handbook (expected completion date July, 2013) and the RI Storm Water Pollution Prevention Plan (SWPPP). DEM will provide assistance in this task.
  
- Evaluate collected ordinances, select best examples as models, and draft new model language as needed. Identify appropriate sections of subdivision regulations and zoning where excerpts can be inserted and/or or reference made to use of the RI Manual and related guidance manuals.



- Compile Model Ordinances with User Guide
  - Model ordinance language will be organized and made available using an ordinance database at the RI NEMO website with links from [ristormwatersolutions.org](http://ristormwatersolutions.org).
  - Concise guidance in using the model language to review and update local land use standards will be prepared, most likely by annotation of the example ordinances. The annotation will identify recommended standards and procedures that either directly support compliance with Phase II requirements or generally promote use of LID and implementation of the town's stormwater program. Other issues that may be addressed include, for example: background information on the need for revisions; types of LID practices that are most appropriate based on land use, type of water resource, or pollutant of concern; and rationale in selecting the recommended language and other alternatives that may be considered.
- Distribute results. Model ordinances and supporting guidance will be made widely available through electronic communication from URI in cooperation with partners, including RI APA, Statewide Planning, and others.

**Task A-4.3 Work with selected municipalities to update ordinances and regulations**

The planning consultant will work directly with municipal staff and boards to review ordinances and regulations, draft recommended updates, prepare informational materials for local officials and the public, and participate in hearings on the proposed revisions to address technical issues. URI and agency staff will provide assistance, with input from the advisory committee. Steps in implementing this task will include the following:

- Establish a process for providing technical assistance to municipalities on updating ordinances. Issues to be addressed will include for example:
  - The priorities for selecting participating municipalities considering factors such as state agency watershed priorities, potential benefits of using LID to prevent degradation of high quality waters vs. restoration of impaired waters, level of municipal interest and schedule for updating local ordinances.
  - Opportunities to leverage other staff support and/or funding
  - Extent of services to be provided, addressing scope of work for the planning consultant, URI responsibilities, role of agency partners, and the advisory committee
  - Municipal responsibilities, including extent of in-house support by municipal staff and board members, and legal and/or engineering review by staff or consultants
  - Draft a model agreement between URI and the municipality
  - Determine how progress will be monitored and results evaluated.
- Publicize technical assistance program and recruit municipalities. Prepare and distribute outreach materials, conduct information meeting(s) to introduce the program if necessary. Select participating communities with input from project partners. Meet with staff and local officials as necessary to define scope of the project in each municipality considering local needs and priorities. Establish URI and municipal responsibilities and finalize agreements. Local responsibilities may include for example: a resolution by the town/city council to participate and make good faith effort to adopt ordinances; attendance at project meetings to provide input and review drafts; coordinate review by town staff and/or consultants including public works, safety, engineering, and legal counsel.
- Review ordinances and prepare draft and final recommendation. The model ordinances developed in the preceding task will be used as a guide. The recommended updates will be made as tracked changes, with annotation as needed to providing supporting information, such as

rationale for the change, compliance with Phase II permit requirements, and alternate language or regulatory mechanisms that may be considered. The draft will be finalized based on input from the town and the pre-determined scope of the project, and submitted to the town.

- Public education to support ordinance adoption. Prepare summary factsheet(s) about the proposed ordinance changes for council, board and commission members, developers and builders, and the general public. With town staff, determine the best approach to publicize the proposed changes, seek input from the local stakeholders affected, and conduct public education and information sessions as necessary prior to public hearings. The consultant and URI will participate in public meetings on the proposed ordinance(s), with assistance from DEM, CRMC and others as needed. The town will be responsible for providing information to DEM on adopted ordinances, including certification of compliance by legal counsel where appropriate.
- Public education to support compliance with adopted ordinances. Finalize information about the ordinance revisions and prepare new materials based on needs identified by town staff and other local officials. Topics may include for example, overview of the LID requirements for developers and those seeking building permits, plan review procedures for town boards focusing on LID elements, and instructions for maintaining LID facilities on privately-owned parcels. Methods to distribute the information to appropriate audiences will be developed by the town with input from URI.
- Distribute results. Updated ordinances and regulations, and related educational materials will be made available at the RI NEMO site with links from RIStormwaterSolutions.org. This may be the version recommended by project staff and/or final adopted by the town. Information about these materials will be publicized regularly as new examples are generated, using URI electronic news partner list serves, and professional newsletters.

#### **Task A-4.4 Develop MS4 workshop on using the model language to update ordinances**

This training workshop will be designed for municipal planners but will also be appropriate for other staff and boards responsible for updating land development standards and/or reviewing land development applications. The training will be held as either a half day program or shorter. A brief presentation for council, board and commission members may also be created depending on interest.

URI will develop training materials and conduct training, with assistance from the planning consultant and support from agency partners and the advisory committee. Responsibilities will include:

- Coordinate workshop development with the advisory committee. A workshop planning subcommittee may be formed to ensure all interests are represented. Developers and builders, town and/or consulting engineers, landscape architects, and building inspectors will be invited to participate. The committee will advise on key project elements such as training priorities, draft and final agendas, development of draft and final training modules, selection of trainers, workshop schedule and location(s), publicity materials, and evaluations. Other organizations providing training for municipal officials will be invited to participate in project planning, including the RI Chapter of the American Planning Association (APA RI), the Grow Smart RI training collaborative, the Narragansett Bay Research Reserve Coastal Training program, and the URI T2 Center.
- Prepare training outline. Topics to be addressed will include the following:

- (1) Reviewing and updating local ordinances and regulations. This session will introduce the model ordinances and offer practice in using the materials to include for example, locating sections of subdivision regulations and zoning that may be outdated or inconsistent with the RI Stormwater Manual Standards, identifying updates that support compliance with the RI standards, and selecting updates that are appropriate for the community and type of water resources. In addition, this session will provide an opportunity for discussion with fellow planners. Staff and boards in communities that have adopted LID practices will be invited to participate to share their knowledge and experiences. State agency staff will address technical questions on stormwater system design, inspection and maintenance procedures, and Phase II permit requirements.
  
- (2) Application review procedures using the RI Stormwater Manual standards. This session is designed to supplement, not substitute for, MS4 technical training in applying the Stormwater Standards Manual provided under Task A-1. Using the model guidance and checklists developed in Task A-3.2, this will address procedures for incorporating LID site planning and design in the local review process. Topics to be addressed include: information requirements, issues to be addressed at each stage of review, and state and local permit coordination. Examples will include projects disturbing less than 1 acre such as residential building permits and zoning applications on difficult sites, and those disturbing one acre or more, including subdivisions and other land development projects requiring multiple state and local permits. A practice exercise will be incorporated to reinforce concepts. Agency staff will participate in conducting the workshop to address state and local permit coordination and technical questions.

- Develop draft and final agendas, workshop format, and training materials with practice exercises. A pilot training for a small group may be held to test the materials. The final module will include all materials used in the workshop such as agenda, exercises, checklists, and other handouts. In addition, a trainer's module will be prepared with supporting resources such as include workshop setup instructions, presentation details, workshop notices, evaluation forms, and other materials as needed.
  
- Establish workshop schedule and location. Prepare workshop flyers and related publicity. Manage registration and meeting logistics. Coordinate with trainers, and prepare workshop evaluations to document change in knowledge, attitude or behavior.
  
- Conduct training. At least one workshop will be held, with additional workshops and/or presentations depending on interest. Revise the workshop modules as needed based on workshop results and participant evaluations.
  
- Distribute workshop materials. All presentations and supporting resources will be posted at the RI NEMO and [ristormatersolutions.org](http://ristormatersolutions.org) websites. URI will publicize availability of the materials and encourage town staff to use with their board members through URI e-news and partner list serves, including RI Chapter APA and GrowSmartRI.

**Lead / Support:** URI with consultant / DEM and MS4s

**Deliverables:**

- Work plan updated annually
  
- Ordinance examples collected and drafted as needed

- Model ordinance provisions compiled with user guide
- Procedures established for municipal technical assistance
- Up to six municipalities recruited and agreements signed
- Ordinances updated in up to six municipalities
- Educational materials and support at public meetings
- One complete training module in updating local ordinances
- At least one workshop conducted for MS4 staff and boards
- All products made available at the URI website

### **TASK A-5 Specialized DOT Staff Training**

All training programs developed and conducted under this project will be open to all DOT staff and sufficient space will be provided for all DOT staff as needed. In some cases however, DOT staff and their consultants may require specialized training on planning, design, inspection and/or maintenance of stormwater drainage systems serving state roadways and facilities.

Training topics and schedules will be determined by DOT staff but will focus on applying the stormwater manual standards, particularly use of LID, operation and maintenance of post construction BMPs, and use of the revised RI Erosion and Sediment Control Handbook. The training will be organized in cooperation with the T2 center. We will also explore opportunities to conduct practical field training at project sites during active installation of BMPS and as part of required inspection and maintenance activities and/or as “tailgate” training. Methods to promote participation in training and enhance effectiveness will be investigated such as including training requirements in bid specifications and contracts, offering continuing education credits under existing certification programs, and involving the responsible project designers, installers and supervisors in the programs. Training topics to be considered will include, but are not limited to, the following:

- **Installing, maintaining and inspecting erosion and sediment controls during active construction**

This training for field supervisors and internal specification writers will focus on using the updated RI Erosion and Sediment Control Manual for linear transportation projects and proper installation and use of new technologies for erosion and sediment control. The training objective is to address specific and practical matters field inspectors face while on the job, including for example:

- What are the design specifications for each BMP and unique features?
- What to look for when BMPs are being installed, before complete protection of the area?
- What to look for to ensure BMPS are working properly?
- What needs to be done to correct a problem?

We will investigate the feasibility of conducting this training at DOT construction sites in conjunction with actual installation activities, and as part of required inspections, maintenance and reporting under the Self-Inspection ERP. This will be coordinated with training on the revised

RI Erosion and Sediment Control Handbook under Task A-3 and research of the DOT Self-Inspection ERP.

- **Contractor training in installing and maintaining new RI stormwater treatment practices during active construction**

Alternatives for contractor training in using updated stormwater treatment BMPS for DOT projects will be investigated. Information on existing programs will be collected, including training offered by the New Hampshire Transportation Center, North Carolina State University, the National Highway Institute, and others. We will consider the feasibility of customizing the training to address particular site(s) to address design of the LID practice and/or structural BMP used, and also to direct training to the contractors working at that site. This may include training at different stages beginning with pre-construction meetings. This training will be coordinated with workshops on the Manual conducted under Task A-1.

- **Inspecting and maintaining new RI stormwater treatment practices during POST construction**

This training for DPW/Maintenance staff will focus on inspecting post-construction BMPs and proper maintenance. As in the previous topics, the goal will be to conduct the training as part of the scheduled inspection and maintenance of LID practices at particular sites, working with those responsible for inspections and reporting. This will be coordinated with Manual training under Task A-1, and with development of an inspection and maintenance template under Task A-2.

**Trainers:** TBD; State agency staff and/or consultant.

**Format:** TBD; field training ideally.

**Lead / Support:**

- Erosion and sediment control training: SRICD / DOT, DEM, URI
- Post Construction BMPs: DOT / DEM, URI

**Deliverables:**

- Educational module for at least one training program
- At least one training program conducted

## **TASK A-6 MS4 Training in Developing a TMDL Implementation Plan**

Rhode Island stormwater managers have limited capacity to undertake water quality restoration activities where local waters are impaired by stormwater runoff. Where a total maximum daily load (TMDL) study finds that stormwater discharges are causing the impairment, the MS4 must develop a TMDL implementation plan and follow it through to restore the water body. Complying with this Phase II permit requirement has generally been difficult for MS4s. In addition, actions taken have varied widely, ranging from little progress, especially in communities hit hard by the economic downturn, to hiring consultants to undertake the task entirely. It is clear that MS4s need specific guidance in developing TMDL Implementation Plans, including parts that can be done in-house with existing staff and parts that may require outside consultants.

The purpose of this task is to support MS4 compliance with TMDL implementation plans by providing training and development of supporting guidance /educational materials in how to design and carry out an implementation plan, using in-house staff and low cost measures where possible.

DEM will be responsible for leading this task, with support by URI. All elements of this task will be developed in cooperation with an advisory committee organized by DEM to include DOT, other agency staff, and representatives of MS4s, and others as appropriate.

URI will assist DEM in coordinating with the advisory committee, planning workshops and establishing agendas, communicating with MS4s, managing registrations, coordinating with speakers, managing workshop logistics, and assisting with development of supporting educational materials.

### **Overview of MS4 workshops on implementing TMDL plans**

This training will be designed as a series of informal meetings for MS4s, agency staff, and invited speakers to share methods used to develop and carry out TMDL implementation plans. The emphasis will be on practical, low cost examples from RI and the New England region. The following sessions are planned:

- (1) TMDL Basics – How to develop an implementation plan. Topics may include, for example: What is an implementation plan, step-by-step guidance in prepare the plan, updating Storm Water Management Program Plans (SWMPP), methods to implement the restoration plans at the watershed scale and site level, DOT/municipal coordination in TMDL implementation, and examples of successfully implemented restoration plans.
- (2) Components of the Plan. This session will focus on stormdrain analysis and illicit discharge detection and elimination (IDDE), including for example: how to identify catchment /contributing areas; steps in conducting an effective analysis of the catchment area, coordination between DOT and other MS4s on shared systems; responsibilities for private drainage flowing to MS4 stormdrains and enforcement of no net increase of pollutants of concern with new development or redevelopment; IDDE surveys, setting priorities for correction, and procedures for responding to violations.
- (3) Budget Planning - Creating an affordable restoration plan. Topics covered in this session will include for example: process of creating the plan and identifying budget items; parts of the plan MS4s can do in-house with staff, parts consultants can do and at what cost; examples using low-cost rapid assessments vs. higher cost comprehensive studies, and hybrid methods; example plans completed by RI MS4s, EPA, watershed organizations and consultants; sources of funding available; and developing operational and capital budgets for municipal stormwater management.

**Trainers:** DEM staff; other invited speakers as needed.

**Format:** TBD; May be informal 2-4 hour work session or networking meeting.

**Lead / Support:** DEM URI

**Schedule:** 1-3 workshops over project term

**Deliverables:**

- Guidance materials developed on one to three TMDL topics
- One to three workshops conducted

## **TASK A-7 Technical Support to MS4s in Public Education and Involvement Methods**

The purpose of this task is to assist MS4s build effective community outreach programs. Most RI MS4s are already using educational materials and methods created under Part B of this project. Many MS4s have customized the materials, and some are using creative ways to actively engage citizens in stormwater awareness and pollution prevention activities. This represents significant progress since the start of the Phase II Storm Water Education Project. Under the renewed project, we believe much more can be done to improve the effectiveness of local stormwater outreach programs, provided we address one major problem. Most stormwater managers have very limited capacity for public outreach. These managers have multiple responsibilities and very limited time for public education, even if only to coordinate with local groups that could assist.

We propose to address this need by shifting from training to more direct technical support and coordination of MS4s in three areas:

- Coordinate MS4 networking meetings on implementing education programs in TMDL watersheds
- Work directly with MS4s to Develop Public Outreach Plans for Selected TMDL watersheds
- Provide Resources and Guidance to MS4s in Developing Effective Outreach programs

### **Task A-7.1 Coordinate networking meetings with MS4s on implementing education programs in TMDL watersheds**

The goal of the networking meeting is for stormwater coordinators and partners to share information about their education programs identify opportunities to share resources, and where possible coordinate outreach within the watershed. The assistance would be directed to communities that share a TMDL watershed but may also address other priority areas such as drinking water supplies and other special resource protection waters. The meetings will either be scheduled based on local interest, particularly by stormwater managers. URI will work with the input host community to identify the pollution issues and TMDL recommendations, develop the agenda, organize the meeting, and facilitate the discussion to address potential for cooperation and next steps. Speakers from outside the watershed may be invited to share successful methods and partnerships formed to address similar stormwater problems in their communities. URI may provide follow up assistance in designing outreach plans under the following Task A-7.2.

### **Task A-7.2 Work with MS4s to develop public outreach plans for selected TMDL watersheds**

URI will assist MS4s in designing a public education /involvement plan for areas with a completed TMDL. The purpose of this task is to create realistic sample outreach plans for MS4s while also promoting restoration of the impaired waters and permit compliance.

- Review existing education plans developed for TMDL watersheds. DEM will provide representative examples.
- Select priority watersheds based on input from DEM and other members of the project team, local interest, and ability of the MS4 and /or local partners to participate. Factors considered in selecting the study area may include restoration priorities, potential for addressing the impairment through public outreach, and need for local support. In addition, representative watersheds will be selected considering water quality goals, priority pollutants, sources of the pollutant, and target audience.

- In each study area:
  - Organize a local advisory group. Members will include the MS4, local partners such as watershed organizations, neighborhood groups, educators, and the project team.
  - With input from DEM, identify the pollutant of concern, the major pollution sources, identified control measures, specific target audience(s), actions considered most effective in reducing pollutant inputs, and areas within the watershed where actions will have the most direct benefit.
  - Prepare draft and final plan in cooperation with the local advisory group and input from the target audience as necessary. The plan will identify measureable goals for minimum measures one and two, and methods for evaluating progress. To the extent possible, the plan will make use of existing educational materials available from URI and other organizations. Outreach methods will be designed to will build upon existing efforts of local groups and agencies. The final plan will include an implementation schedule identifying responsibilities, outputs and budget.
- Develop four to six plans over the project period, depending on complexity.

**Task A-7.3 Provide resources and guidance to MS4s in developing effective outreach programs**

URI will continue to coordinate with DEM and MS4s to support public education and involvement in local stormwater programs through the following activities:

- Coordinate with DEM in establishing basic requirements for public education and involvement under Minimum Measures 1 and 2 with renewal of the Phase II permit. URI support may include: reviewing the draft permit, preparing recommendations, coordinating with MS4s to obtain their input, and assistance in organizing a meeting with MS4s on this topic.
- Maintain regular communication with MS4s on public outreach topics. This will be primarily by URI e-news and partner list serves or newsletters, to include:
  - Announcements of new /updated web resources available,
  - Outreach reminders, suggestions and tips for using available resources,
  - Invitations to participate in workshops, technical assistance opportunities and other events.
  - Updates highlighting innovative outreach activities by municipalities and other MS4s, teachers, community groups and others, including accomplishments by recipients of small grants under Part B of this project.
- Continue to respond to MS4 requests for information and assistance in developing education programs. This has including for example, collecting educational resources for specific audiences, guidance in developing outreach strategies, reviewing new factsheets created by the MS4, and providing factsheets, displays and/or staff support for festivals and other public events.

**Lead / Support: URI / DEM**

**Deliverables:**

- One to four networking meetings organized annually
- Meeting Agendas, Minutes and summary of action items
- Draft education outreach plans developed in cooperation with MS4s and partners in TMDL watersheds



Four to six outreach plans completed for TMDL watersheds over the project period

- Coordination with DEM and MS4s on renewal of the Phase II permit related to minimum measures one and two
- Record of communication to MS4s promoting use of public education and involvement resources and technical assistance provided

### **TASK A-8 MS4s Workshops on LID / Pollution Prevention Topics**

Training under this task is designed to address identified MS4 needs and to support compliance with the RI Stormwater Standards Manual focusing on LID (Minimum Measure 5) and Pollution Prevention /Good Housekeeping (Minimum Measure 6). The proposed workshops will be conducted based on DEM and DOT priorities, interest by MS4, and depending on support from the URI T2 Center as co-sponsor for workshops. The following types of training are proposed:

- Workshops for non-traditional MS4s on LID standards and enforceable policies
- Pollution prevention training at municipal public works facilities\*
- Rain garden training for landscapers, MS4s and volunteers
- Field training for MS4 staff in rain garden / bioretention planting and maintenance\*
- Landscape care and turf management for MS4s\*

*\*Note: these programs will be offered depending on assistance from the URI T2 center as co-sponsor.*

#### **Task A-8.1 Workshops for non-traditional MS4s on LID standards and enforceable policies**

Under this task URI will coordinate work sessions on applying LID at State and academic institutions regulated as MS4s. Our objective is to promote compliance with the RI Stormwater Manual LID standards by providing opportunities for these stormwater managers to share information on successful LID projects. This will fill an important need as no training or assistance has been provided for this group, yet these stormwater managers must implement the RI Stormwater Manual standards on MS4 property, whether the work is conducted by staff or contracted out. The model ordinance language and training proposed under Task A-4 are not directly applicable, given these institutions must rely on enforceable policies and contract specifications rather than ordinances and regulations.

Two areas of interest have been identified:

- Incorporating LID in Institutional Policies and Procedures. Topics addressed may include: LID standards adopted, procedural review, and methods to incorporate LID in construction contracts. This will highlight methods adopted at the Newport Naval Station, Newport RI appropriate for other non-traditional MS4s.

- Campus Sustainable Stormwater Management. This session will demonstrate how Campus master plans are being used to speed permitting and implement projects at RI College. This will also provide an opportunity to showcase innovative use and maintenance of LID practices at academic institutions and other sites. Groups not technically regulated as MS4s but responsible for stormwater management, will be invited to participate. This includes, for example: the DEM Planning and Development Office who is responsible for park planning and management, smaller academic institutions such as Providence College, and hospitals and businesses working to adopt sustainable stormwater practices.

Work sessions will be held based on interest and participation of the non-traditional MS4s, with the topics selected and agenda developed by the group. URI will provide support for organizing and facilitating the work sessions with project partners.

**Lead / Support:** URI / DEM

**Deliverables:**

- Meeting agendas, minutes and action items
- Presentations and /or supporting resource distributed by website
- One to two sessions organized over the project term

**Task A-8.2 Pollution prevention training at municipal public works facilities**

This practical “tailgate” training is for municipal employees who work at maintenance garages and other public works facilities. The primary focus is on conducting a facility inspection and completing the annual inspection report with active participation of the employees, at the DPW facility. Topics covered include spill prevention and response, good housekeeping practices, and materials management.

Each training program will be customized for the facility using its SWPPP. Stormwater inspection and reporting template(s) available from URI or DOT will be adapted for each facility as needed. Depending on local needs, either first-time or refresher training may be offered. Allison Hamel has already completed this training for DOT staff but has offered to make templates and other training materials available to be adapted for other facilities. Training resources, including the Annual Stormwater Inspection and Report Template are also available at the URI workshop page at: [http://www.uri.edu/ce/wq/nemo/Workshops-Support/Previous\\_Workshops.htm#EmployeeTraining](http://www.uri.edu/ce/wq/nemo/Workshops-Support/Previous_Workshops.htm#EmployeeTraining), and from the URI T2 Center based on follow-up training conducted at several municipal DPW facilities.

This program addresses the staff training portion of a Stormwater Pollution Prevention Plan (SWPPP) for public works garages and structures. As a result, this workshop will support compliance with minimum measures for public education and outreach, and for pollution prevention and good housekeeping in municipal operations.

**Lead / Support:** DOT / T2 Center, URI

**Deliverables:**

- Workshops agendas and DOT training materials customized for the DPW facility SWPPP
- Facility inspected and maintenance report completed as part of training
- Number of training sites to be determined

### **Task A-8.3 Rain garden training for landscapers, MS4s and volunteers**

The Rain Garden Training program was developed under the DOT Storm Water Education Program in 2011 and in just one year, resulted in construction of four rain gardens in three municipalities. Each workshop includes indoor training and construction of a rain garden at a public site. This comprehensive program addresses all rain garden elements, including planning and siting, state regulations, design, plant selection, installation, and maintenance. The program is appropriate for MS4 staff responsible for rain garden design, installation, and maintenance.

MS4s are invited to host the program which results in construction of one or more rain gardens at a public site. URI is responsible for rain garden design, plant and materials list, coordinating siting and installation with the MS4, overseeing construction, and training including rain garden planting with the class. The MS4 host is expected to assist in selecting a location, prepare and excavate the site, and provide plants, other materials and equipment. Workshop fees are waived for staff from the host community and reduced for other MS4s. Other elements in this task include updating training materials as needed, publicizing the workshops, organizing the program and managing registrations, preparing a training handbook, and evaluating results.

**Trainers:** URI Outreach Center

**Format:** Full day or 1 ½ day workshop

**Lead / Support:** URI Outreach Center / Host MS4

**Schedule:** 1 workshop annually (depending on MS4 hosting)

**Deliverables:**

- Workshop agendas, presentations and handbook
- Rain garden designed and installed at a public site

### **Task A-8.4 Field training for MS4 staff in rain garden / bioretention planting and maintenance**

Rain gardens, bioretention systems, grassed swales, and other vegetated LID practices represent a maintenance challenge for MS4 staff more comfortable with riding mowers and string trimmers than hand weeding and pruning. This workshop will be designed to cover the basics of installing plants and mulch within a rain garden, and conducting routine inspection and maintenance. The program may be adapted to address maintenance of any other vegetated LID BMP, including grassed swales, qualified pervious areas, and others. The sessions on planting and maintenance will be designed to be offered separately. Training will include be designed primarily as hands-on field practice as part of the BMP installation and scheduled maintenance. Ideally, the product of the maintenance session would be a completed inspection and maintenance report based on the maintenance plan approved for the BMP and/or templates developed in Task A-2. This workshop is similar to, and may be coordinated with development of specialized training for DOT staff in installing and maintaining updated stormwater treatment BMPs under Task A-5.

Topics to be addressed in the planting session will include: overview of rain garden / bioretention function; sediment removal and decompaction (if needed); preparation of soil/compost mix; proper planting, mulching, and watering; and review of the inspection and maintenance schedule.

The maintenance session will address: overview of inspection and maintenance procedures; identification of rain garden plants vs. weeds; inspecting the BMP to identify trouble spots; completing the inspection and maintenance checklist; identifying additional maintenance or repairs needed, and related administrative procedures.

**Trainers:** TBD

**Format:** Primarily field program, 20 minutes – 1 hr.

**Lead / Support:** URI / T2 Center

**Deliverables:**

- Workshop agendas and training materials customized for the stormwater BMP
- BMP either planted or inspected and maintained, with report completed as part of training
- Number of training sites to be determined

### **Task A-8.5 Landscape care and turf management for MS4s**

Training and technical support under this task will be designed to promote use of current “low-input” management practices with reduced need for chemical fertilizers, herbicides and watering. This training will support compliance with minimum measures for Good Housekeeping / Pollution Prevention, and for Construction Site Stormwater Management, focusing on preserving soils. The training topics and format will be developed with input from project partners and MS4s. In addition, the programs will be designed to address site-specific issues at each MS4 to the extent possible. The following types of programs will be considered:

- **Employee Training in Lawn and Landscape Care Basics.** This is for MS4 field staff including public works, facilities, and parks and recreation departments. It is appropriate for new employees or refresher, and can be held as brief “coffee break” or “tailgate” training. Topics to be addressed may include:
  - Importance of good landscape care practices and MS4 policies
  - Mowing practices - Mow high as the new standard; identify areas needing special attention and different treatment; reduce mowing to 1 or 2 times/year in low maintenance areas (roadsides) and encourage naturalizing
  - Soil quality - Ensuring soil depth and quality, amend soils with compost at time of seeding/planting (as required by the draft Revised RI Soil Erosion and Sediment Control Handbook, 2013 update, Chapter 18, Soil Preparation and Topsoiling)
  - Lawn maintenance - Topdressing with compost instead of synthetic fertilizer, when and how to aerate high traffic areas
  - Protecting trees - Avoiding damage from trimmers and mowers; proper mulching
  - Plant it right - Proper planting steps for trees and shrubs
  - Administrative procedures necessary to implement existing /new practices; roles of staff and supervisors. Department managers and supervisors at all levels will be encouraged to participate.
- **Natural Turf and Landscape Management for MS4 Grounds Managers.** This program is for MS4 property managers, landscape care supervisors, and other managers responsible for grounds keeping at schools, parks, recreational fields, and other municipal properties. The programs will be customized to address local needs through brief presentations, informal discussion and consultation on specific land management concerns rather a classroom setting.

Basic topics to be addressed will include:

- Transitioning to natural lawn and turf management, including environmental and health benefits, reduced costs, improvements in lawn / plant health over the long term
- Low input seed varieties

- Alternatives to synthetic fertilizers and herbicides
- Lawn maintenance - Topdressing with compost instead of fertilizer, overseeing
- How to interpret soil tests and convert synthetic fertilizer recommendations to compost equivalent
- Dealing with compaction in sports fields and other heavily used greens, when/how to aerate high traffic areas
- Instructing staff and/or contractors so their work is done properly

Onsite Composting topics. A separate session on expanding or improving MS4 on-site composting operations may be developed depending on local interest. The training objective is to enable the MS4 to generate high quality compost suitable for top dressing lawns, or to amend topsoil on MS4 properties before seeding or planting as required under the Draft RI Erosion and Sediment Control Handbook. Topics to be addressed may include:

- Creating or expanding a composting center for lawn clippings, leaves, brush
- Policies for returning grass clippings on lawn or composting
- How to divert materials from trash to composting
- Compost center operating procedures to ensure high quality compost

**Trainers:** TBD

**Format:** Primarily field program, 20 min. - 1 hr.

**Lead / Support:** URI / Co-sponsorship by T2 Center to be determined.

**Deliverables:** Workshop agendas and training materials for each program.

## **B. MODEL STORMWATER EDUCATION AND INVOLVEMENT PROGRAM**

The purpose of this project element is to update, enhance and maintain the model stormwater outreach program known as Rhode Island Stormwater Solutions. RI Stormwater Solutions is the public education and involvement component of the DOT Stormwater Education project. Consolidating public stormwater education at the state level ensures public messages are consistent in content and reach across municipal boundaries. In our small state this is the most cost-efficient strategy rather than fragmenting outreach among 44 regulated MS4s, many of whom have limited capacity to undertake public education. This approach also allows stormwater managers to choose among a variety of outreach materials and delivery methods that best address specific pollution sources in their communities, and apply them locally in ways that may be much more effective than the statewide campaign.

The RI Stormwater Solutions project is designed to meet the following objectives:

- (1) Develop and deliver consistent messages directly to the public on the need for stormwater controls, actions individuals can take, and ways to get involved in preventing stormwater pollution.
- (2) Provide a comprehensive source of consistent, reliable materials with outreach methods and related tools to aid RIDOT, MS4s, and others implement effective stormwater education and involvement programs.
- (3) Provide direct support to DOT and MS4s in implementing education plans on priority topics and in priority areas, including TMDL watersheds.

All major activities under this project will be coordinated with an advisory group comprised of the project team, stormwater managers and other local officials, environmental educators, and other professionals with interest and expertise in public outreach. Ad hoc committees will be organized as needed to focus input on specific tasks and to obtain their input at key decision points.

### **TASK B.1 Evaluate Rhode Island Stormwater Solutions and Develop a Marketing Plan**

The objective of this task are to evaluate and refresh the RI Stormwater Solutions program to ensure outreach is as effective as possible in reaching target audiences. This is needed as RI Stormwater Solutions has evolved since the early messages were tested. We've shifted from the early statewide media campaign to more source-specific information on pollution control actions and involvement activities. In addition, we completed a major reorganization of [www.RIStormwaterSolutions.org](http://www.RIStormwaterSolutions.org) and transitioned to a new website in May 2013. We believe the progress has been positive but formal evaluation will identify new audiences and provide us with blueprint for outreach over the term of this project.

We propose to conduct this "checkup" with the assistance of consulting professionals with expertise specifically in public outreach on stormwater topics. The project evaluation will provide recommendations for enhancing statewide public outreach. In addition, at least three representative areas of the state will be selected for analysis of target audience profiles as basis for developing source-specific education plans for TMLD implementation. These areas will be selected in cooperation with DOT and other MS4s. Results of this task will support development of education plans for TMDL implementation under Task A-7.2.

#### **Tasks**

- Organize a project advisory committee to participate in this element of the project. A key task will be to select areas of the state for analysis of target audience profiles.
- Develop a scope of work and subcontract with a professional consultant, with assistance from the SRICD as needed.
- Conduct evaluation considering the following:
  - Evaluate selected stormwater messages and outreach materials. This will address design of project materials and use of the Know Where it Goes logo vs. DOT, DEM and URI logos.
  - Develop audience profiles for MS4 target audiences across the state and in at least three additional selected areas using census data, market research databases, and other web resources. Results will be used to better identify target audiences to choose the most appropriate techniques to reach them.
  - Analyze Google keyword patterns and trends. Results will be used to identify opportunities to link stormwater messages to identified public attitudes and behaviors.
  - Determine appropriate balance of statewide education vs. targeted outreach by audience, location, and /or source of pollution.
  - Generally evaluate program strengths and weaknesses and provide recommendations
- Prepare a marketing plan for the RI stormwater solutions project, to include outcome measurement tools. In developing the marketing plan a variety of media and delivery methods will be considered, including, for example: social media, "earned" media such as news articles in traditional and electronic outlets, advertising and public relations, direct mail, email marketing and

search engine optimization. In addition, the plan will consider involvement activities currently organized by URI and partners, and build on these where appropriate.

**Deliverables:**

- Recommendations for updating RI Stormwater Solutions
- Target Audience Profiles for stormwater outreach statewide and in three selected areas of the state
- Marketing plan for RI Stormwater Solutions with outcome measurement tools
- Outreach evaluation at project midpoint and end

**TASK B-2 Develop and Deliver Consistent Public Messages on Preventing Stormwater Pollution, Using a Variety of Media and Activities**

Activities under this task will be guided by the results and recommendations of the marketing plan developed in Task B-1. However, we have already identified the need to update and refresh educational materials; other outreach tasks listed below are preliminary pending results of the marketing plan.

- Update public education materials, delivery methods, involvement strategies, and instructions for organizing stormwater events. This will include: correcting outdated information; ensuring all materials are clear and concise; upgrading photos and other graphics where needed; organizing and consolidating materials for ease of use and access; and updating delivery methods.
- Continue to promote public awareness on the need for stormwater management through “earned” media. This includes generating occasional press releases for both electronic and traditional media, and working with news outlets to support development of news articles.
- Strengthen coordination with agencies and organizations seeking to spread similar messages. These groups include, for example: the RI Water Resources Board (Slow the Flow water conservation campaign), RI HEALTH (Scoop the Poop beach protection campaign), Watershed Counts, and rain barrel displays and sales at public festivals by the RI Water Lady, EPA Soak up the Rain (rain gardens).
- Determine need for new outreach materials and involvement activities with input from the advisory group. Topics may include for example:
  - Additional information and/or incentive programs related to lawn and landscape care, rain barrel / gutter diversion incentive programs, rain garden maintenance factsheet and rain garden design booklet.
  - Rain Garden app for mobile devices developed in cooperation with UConn NEMO as part of a regional effort.
  - Promoting use of LID among various audiences, either voluntary, or to support adoption of local stormwater ordinances. Consider public displays and/or short instructional videos on residential LID practices.
  - Evaluate need to update more technical materials such as the URI Permeable Pavement booklet which describes types of permeable pavement materials, vendors, and costs.
  - New areas of outreach such as trash and litter control, urban stormwater management, and making educational materials available in Spanish and other languages.

- Continue to coordinate stormdrain marking events with Save the Bay and MS4s with the URI Feinsein Civic Engagement program as a service learning project with URI 101 students and faculty.
- Continue to provide advanced training for URI Master Gardeners on landscape care, using the Enviroscape® Watershed model, and rain garden stewardship. The URI Outreach Center conducts the training and coordinates with the Master Gardeners to schedule landscape care talks, set up watershed displays, and help maintain a public rain garden.

### **Task B-2.1 Update and maintain the project website**

The central hub for public information is the project website, [rstormwatersolutions.org](http://rstormwatersolutions.org). The main page is designed with straightforward information on simple steps individuals can take to prevent stormwater pollution. Additional resources include ideas for getting involved with community groups and step-by-step guides for organizing public involvement events, such as stormdrain marking, installing pet waste stations, building a community rain garden, and many more.

The website is also the primary resource center for MS4 stormwater managers. Towns with limited time and budgets can simply link to the website rather than creating their own stormwater page. All of the content is free and open to the public domain for use in education and training. The materials are organized specifically for use by stormwater managers and other groups wishing to educate people on stormwater pollution topics. A menu of choices is available, all in readily accessible, easy to use formats. For example, basic materials range from monthly bill inserts and cartoons with simple messages to factsheets and short newsletter articles. These are organized by pollution source topics and by time of year, considering when public audiences are most likely to be receptive to particular messages. In-depth strategies for reaching specific audiences and for organizing public involvement activities are also provided. Municipalities throughout Rhode Island have used this resource to help with their educational compliance component. In addition, URI has provided assistance to MS4s in customizing these materials and prepared sample education plans by request.

Under this task we will undertake the following activities:

- Maintain the [Rlstormwatersolutions.org](http://Rlstormwatersolutions.org) as the portal for all stormwater information for the general public and educational materials and methods for stormwater managers.
- Complete website update and reorganization. The website redesign has been in progress through 2012 and in May 2013 we transitioned to an entirely new website. Additional improvements are needed, in both navigation and editing to complete the reorganization. Results will improve access to and use of resources.
- Incorporate website recommendations resulting from the marketing plan, including strategies to direct more users to the site. A post card mailing to MS4s and other audiences may be used.
- Expand information available on LID stormwater management for public audiences.
- Maintain and update the LID inventory database, working in coordination with DEM to identify new sites. Publicize availability of the site to promote greater awareness of the types of innovative stormwater practices installed throughout the state as well as their appearance and function. The inventory also identifies contractors with experience in designing and installing LID practices.



- Evaluate and track web visits using Google Analytics

**Task B.2-2 Promote youth education on stormwater pollution prevention**

Youth Education was identified as a priority for public outreach based on input from MS4 stormwater managers in 2010. Although we initially investigated the feasibility of incorporating stormwater education into the state education curriculum, we found that not realistic given the lengthy process and multiple levels of approval required. Instead, we have organized a variety of resources to promote, and in some cases, conduct youth education on stormwater science and management. This includes: a stormwater education curriculum for various grade levels with grade span expectations; teacher training in using the Enviroscope® Model; making the model available for loan; and displaying the watershed model and other stormwater information at festivals and farmers markets. Our goal for this project is to continue to facilitate youth education through the following activities:

- Continue to make the stormwater education curriculum and related resources readily available to educators, stormwater managers, master gardeners, and other volunteers through the project website, and update as needed.
- Create a simple guide for educators and stormwater managers in establishing stormwater education programs in local schools through case studies of successful examples.
- Provide training to MS4s and educators on use of the Enviroscope® watershed model and other curriculum materials with support from the URI Outreach Center.
- Make the watershed model available for MS4s and educators to borrow and promote its use.
- Provide support to MS4s in establishing youth education programs in their communities by helping to plan new programs in cooperation with stormwater managers and local educators, recruiting trained Master Gardeners to assist, and helping to run the program when additional teachers are needed. This assistance is provided at local request and is based on staff availability.
- Investigate the feasibility of using the watershed model with youth groups at summer camps and festivals, in coordination with the RI Health Beach Monitoring Program. A student intern will be hired to manage this program.
- Investigate opportunities to promote stormwater-related service projects for organizations that require a service component, including for example, RI Envirothon, high school honor societies and science clubs, and Scouts.

**Lead / Support:** URI NEMO / URI Outreach Center

- Development and delivery of public messages on preventing stormwater pollution
- Master Gardeners trained annually and participate in stormwater education activities
- Website updated and maintained
- Record of web activity and usage
- Youth education curriculum updated and expanded
- Youth education delivered using the Enviroscope® watershed model

### **TASK B-3 Develop Source-Specific Outreach Materials and Delivery Methods for use by Stormwater Managers**

The purpose of this task is to develop targeted educational materials for use by municipalities and other MS4s in implementing customized stormwater education programs based on needs in their area, considering different types of watersheds and receiving waters, and addressing the priority pollutants and the sources or land use activities causing the greatest impacts. In addition, this type of outreach targets key audiences - such as businesses, homeowners and developers, to promote the desired change in behavior.

The educational materials for use by stormwater managers are currently organized by pollution source and audience and are readily accessible in various formats. These include basic educational materials that are quick and easy to use, as well as education “strategies” which center on public involvement activities with supporting materials and instructions. The activities include organizing a stormdrain marking program, pet waste campaign, building a community rain garden, business outreach to promote good housekeeping, and starting or expanding a youth education program using the EnviroScape® watershed model. In addition, we have created sample education plans for stormwater managers by request. These resources have been widely used and/or adapted by many stormwater managers throughout the state, but most communities have very limited capacity to update or create new materials that address their specific need. This task will address this gap through the following tasks.

Our objectives are: 1) to continue making source-specific materials and delivery methods available to stormwater managers, 2) to create new materials on priority topics; and 3) to promote stormwater management success stories using real data. Activities under this task will be guided by the results and recommendations of the marketing plan developed in Task B-1. Input from DEM, DOT, and municipal officials responsible for implementing stormwater education and outreach programs will be obtained at all important decision points. In addition, URI will coordinate closely with other agencies and non-profit organizations involved in stormwater education and outreach to the public and municipal officials.

#### **Tasks**

- Update and organize educational materials in a format that is readily accessible for use by stormwater managers. The updates will consider existing communication methods MS4s use to keep residents informed on local issues, as well as new approaches. Promote use of the materials by watershed groups, professional organizations and others through their newsletters and other communication networks. In addition, investigate new methods for regularly communicating with MS4s and these groups to promote broader use of the materials.
- Develop new educational materials and outreach strategies on priority topics. The priority topic currently identified by DEM is building public support for storm water utility districts. Other topics may include for example, implementing TMDL education plans to address pollutants of concern and their sources, and promoting adoption of local stormwater ordinances to incorporate LID practices and /or maintenance procedures. Where appropriate, the education strategies will be designed for particular communities and/or watershed areas selected by DEM, with input from DOT and other MS4s. The education campaign may be customized as necessary to reach key audiences, such as elected and/or appointed municipal officials, homeowners, business owners, developers, contractors and others. Such materials will be provided in a readily accessible format for stormwater managers to use or modify as needed.

- Promote stormwater management success stories. In order to create awareness of the benefits of improved stormwater management and build support for greater use of such practices, URI will work with project partners to publicize success stories grounded in actual projects that generated quantifiable benefits in terms of water quality or volume control, flood control, aesthetic values, open space created, or other metric. URI responsibilities may include collecting data, drafting and/or reviewing stories, publicizing stories, and creating archive of stories at [ristormwatersolutions.org](http://ristormwatersolutions.org). The scope of the stories, which might range from DPW management practices, ordinance updates, and use of LID practices for new construction or redevelopment, will be determined in cooperation with project partners.

**Lead / Support:** URI / DEM, DOT, MS4s

**Deliverables:**

- Source-specific materials updated and made readily available to MS4s and others.
- New materials and outreach methods developed for targeted audiences on priority topics, to include storm water utility districts.
- Promotion of stormwater success stories in cooperation with project partners.

**TASK B-4 Citizen Water Quality Monitoring**

The purpose of this task is to directly involve citizens in DOT/MS4 stormwater programs by monitoring local waters affected by runoff from state roads. The monitoring program can be designed to meet agency needs for baseline monitoring or specialized investigations to implement TMDL plans, as described below. Citizen volunteers could be trained by DOT, DEM, MS4 staff or URI Watershed Watch. Laboratory analysis may be conducted at either the RI Department of Health lab or the URI Watershed Watch certified lab. In all cases, the sampling protocol would be developed by the MS4 in cooperation with organization responsible for overseeing the volunteers and ensuring quality control.

Development of the sampling plan would consider the following types of monitoring.

- Baseline monitoring involves regular monitoring of a river, lake or embayment on a regular schedule from spring through fall to establish baseline data and to identify and trends over time, including any changes as stormwater improvements. The Watershed Watch program specializes in baseline monitoring. The regular schedule is weekly monitoring for temperature and clarity measured by secchi depth, and biweekly for all other parameters (dissolved oxygen and chlorophyll) using sampling kits. Tri-season collection is scheduled for other constituents including bacteria, nitrogen and phosphorus, which must be brought to the URI Watershed Watch lab for analysis. The Watershed Watch fee is \$600 / monitoring location each year, spring through fall.
- Illicit discharge detection. Monitors are trained to collect samples during dry weather, following sampling protocols and schedule developed by the MS4 in cooperation with Watershed Watch staff. Cost is per-sample basis.
- Wet weather monitoring. This requires a dedicated volunteer who is able to visit the sampling site(s) to capture the first flush and re-sample 24 hours later, and also bring samples to the URI

lab for analysis. This has been used to evaluate discharges from stormwater BPMs. Cost is per-sample basis.

URI Watershed Watch is a volunteer water quality monitoring program, led by trained scientists, which helps state and local governments, watershed groups and other organizations to recruit and train volunteers to become citizen scientists gathering quality assured monitoring data. The URI Watershed Watch, located at the URI Coastal Institute in Kingston, is a certified by RI Health for non-potable microbiology and inorganic chemistry. The program focuses on long-term monitoring of RI lakes, ponds, streams and coastal waters, with 250 locations monitored annually. URI provides training, equipment, supplies and analytical services tailored to organizational needs while meeting strict quality assurance and quality control guidelines in the field and laboratory. URI reports monitoring results to the sponsoring agency and provides assistance in interpreting the data. Summary results of baseline monitoring are made available on the Watershed Watch website. In addition, baseline monitoring is provided to DEM and used in preparation of the RIDEM Integrated Water Quality Assessment and Monitoring reports. Otherwise, the sponsor agency or organization is responsible for making the information available to others, including shoreline residents and watershed landowners to raise awareness of water quality conditions and to promote management action.

### **Tasks**

- DOT will determine the need for and feasibility of citizen monitoring to support the DOT stormwater program in cooperation with MS4s sharing interconnected drainage systems. Factors to be considered include:
  - Recruiting volunteers and maintaining regular communication with volunteers .
  - Providing training, equipment, supplies and analytical services.
  - Ensuring quality control in sample collection, transport, and non-lab analysis.
  - Data interpretation and information on monitoring results.
- The agency or organization selected to train, equip and oversee citizen volunteers will assist in developing the monitoring plan, including parameters sampled, monitoring protocols, and schedule.
- The local sponsor, either DOT, other MS4, or watershed organization would be responsible providing a safe access point. A small boat is typically needed for baseline monitoring on ponds and rivers.

**Lead / Support:** URI Watershed Watch / DOT or other local sponsor

### **Deliverables:**

- Four sampling locations monitored over four years, from spring through fall. Baseline monitoring is assumed for cost estimate but can be customized.
- Volunteer training, equipment, sampling protocols, supplies, analytical services, and monitoring results.

## **C. PROJECT MANAGEMENT AND COORDINATION**

### **TASK C-1 Implementation Schedule and Reporting**

- Revise the project plan as needed based on input from DOT and DEM and develop annual work plans. Seek input from project partners and MS4s on the project plan and/or annual work plans.
- Prepare monthly budget reports and progress summaries to be approved by RIDEM and RIDOT.
- Prepare annual reports on progress, accomplishments and planned activities.

#### **Deliverables:**

Annual work plans finalized with input from project partners and MS4s

Monthly budget reports and progress summaries

Annual progress reports

### **TASK C-2 Project Coordination and Communication**

- Coordinate project activities with RIDEM, RIDOT and URI staff (project team), MS4s, and other partners.
- Maintain regular communication with MS4s and other target audiences, primarily through electronic newsletters and emails.
- Seek advisory review and input from project partners as needed.

**Deliverables:** Record of coordination meetings and electronic communication

### **TASK C-3 Evaluation and Assessment**

- Assess local needs for training and technical support related to the approved project scope of work and/or annual work plans. Solicit input by MS4s and project partners through an electronic survey, telephone interview and/or review meeting.
- Reassess needs throughout the project, primarily through workshop evaluations, but using other methods where appropriate.
- Coordinate with DEM to establish annual MS4 measures of compliance and reporting requirements for minimum measures one and two. This information will be used to design the evaluation method and data collected.
- Evaluate project accomplishments and impacts by major tasks. Measures of success will be developed in annual work plans.

#### **Deliverables:**

Completed needs assessments with summary results

Progress evaluations consistent with permit compliance measures



RI DOT Storm Water Phase II Public Outreach and Education Project Deliverables and Budget 2014 - 2019

TASKS	Lead / Support	Deliverables	Grant Budget	Month <sup>1</sup>
<p><b>A. STATE, MUNICIPAL AND PRIVATE SECTOR TRAINING AND TECHNICAL SUPPORT</b></p>				
<p><b>A-1 MS4 Workshops on Stormwater Manual Updates and Policies</b></p>	DEM /URI	Annual workshop schedule, Coordination with MS4s, Workshop organization, Registration, meeting logistics and evaluations	52,246 (36,000 for consultant for training or DEM peer review)	1 - 58
<p><b>A-2 Inspection and Maintenance Manual for Post Construction Stormwater Facilities</b>                      A-2.1 Coordinate manual development with MS4s                      A-2.2 Collect and review existing resources                      A-2.3 Outline manual contents                      A-2.4 Prepare draft and final manual                      A-2.5 Distribute the final inspection and maintenance manual</p>	URI / DEM	Draft and final manual	14,531	1 - 30
<p><b>A-3 Outreach and Training in Use of the Revised RI Soil Erosion and Sediment Control Handbook</b>                      A-3.1 Distribute the revised erosion and sediment control handbook                      A-3.2 Develop a training program in use of the Erosion and Sediment Control Handbook                      A-3.3 Develop training modules and conduct training                      A-3.4 Develop a Field Guide to Erosion and Sediment Control</p>	SRICD / DEM, DOT, URI, Advisory Committee	Year 1: Final Handbook distributed with publicity; Training plan with outline of training modules and schedule and; Complete basic training modules for 3-4 types of programs by audience; Field guide if needed. Years 2-5: Annual training schedules; Minimum of 3 training programs completed annually, with new programs developed as needed.	81,646 (58,200 SRICD)	1 - 12; 13 - 58
<p><b>A-4 Model Ordinances, Technical Support, and Training to Incorporate RI Stormwater Standards in Municipal Ordinances and Regulations</b>                      A-4.1 Organize advisory committee and develop work plan                      A-4.2 Develop model language for local plans, ordinances and regulations                      A-4.3 Work with selected municipalities to update ordinances and regulations                      A-4.4 Develop MS4 workshop on using the model language to update ordinances</p>	URI with consultant / DEM and MS4s	Model ordinance provisions with user guide on web, Signed agreements for tech. assistance and Ordinances updated in six communities, Educational materials and support at hearings, workshop module and training for MS4 staff and boards.	101,998 (47,000 Planning consultant	13 - 58

TASKS	Lead / Support	Deliverables	Grant Budget	Month <sup>1</sup>
<b>A-5 Specialized DOT Staff Training</b> <ul style="list-style-type: none"> <li>• Installing, maintaining and inspection erosion and sediment controls during active construction;</li> <li>• Contractor training in installing and maintaining RI stormwater treatment practices during active construction;</li> <li>• Inspecting and maintaining new RI stormwater treatment practices during Post construction</li> </ul>	SRICD / DOT, DEM, URI	Minimum of 1 training module and 1 workshop	49,186 (34,800 consultant)	1 - 58
<b>A-6 MS4 Training in Developing a TMDL Implementation Plan</b> A-6.1 Organize MS4 workshop series on implementing TMDL plans and assist with development of educational materials. Topics: TMDL Basics, Components of the Plan, Budget Planning.	DEM/URI	Workshop schedule, coordination with MS4s and speakers, workshop organization, registration, and other meeting logistics, and DEM TMDL guidance documents.	32,050	12 - 54
<b>A-7 Technical Support to MS4s in Public Education and Involvement Methods</b> A-7.1 Coordinate networking meetings with MS4s on implementing education programs in TMDL watersheds A-7.2 Work with MS4s to develop public outreach plans for selected TMDL watersheds A-7.3 Provide resources and guidance to MS4s in developing effective outreach programs	URI / DEM	Networking meetings organized with MS4s; Four education plans developed for selected TMDL watersheds, Coordination with DEM and MS4s on renewal of Permit minimum measures one and two.	67,025 (9,500 outreach design and media services)	15 - 58
<b>A-8 MS4 Workshops on LID / Pollution Prevention Topics</b>			19,807	
A-8.1 Workshops for non-traditional MS4s on LID standards and enforceable policies	URI / DEM	Workshop held based on MS4 interest		24 - 54
A-8.2 Pollution prevention training at municipal public works facilities	DOT	MS4 DPW training and facility inspection (based on support by DOT and T2 Center)		24 - 54
A-8.3 Rain garden training for landscapers, MS4s and volunteers	URI / DEM	Workshop with rain garden construction		13 - 36



<b>TASKS</b>	<b>Lead / Support</b>	<b>Deliverables</b>	<b>Grant Budget</b>	<b>Month<sup>1</sup></b>
A-8.4 Field training for MS4 staff in rain garden / bioretention planting and maintenance	URI / Co-sponsor TBD	Workshop training module customized for the BMP; Maintenance and inspection completed as part of training. Workshop held based on MS4 interest		24 - 54
A-8.5 Landscape care and turf management for MS4s <ul style="list-style-type: none"> <li>Employee Training in Lawn and Landscape Care Basics. Natural Turf and Landscape Management for MS4 Grounds Managers. Basics and Onsite Composting topics</li> </ul>	URI / Co-sponsor TBD	Workshop held based on MS4 interest		24 - 54
<b>B. MODEL STORMWATER EDUCATION AND INVOLVEMENT PROGRAM</b>				
<b>B-1 Evaluate Rhode Island Stormwater Solutions and Develop a Marketing Plan</b>	URI with consultant / SRICD	Target audience profiles for statewide outreach and 3 selected areas of the state. Marketing plan with outcome measures.	42,795 (8,500 outreach design consultant)	1 - 12
<b>B-2 Develop and Deliver Consistent Public Messages on Preventing Stormwater Pollution, Using a Variety of Media and Activities.</b> B-2.1 Update and Maintain the Project Website B-2.2 Promote Youth Education on Stormwater Pollution Prevention	URI NEMO / URI Outreach Center/ SRICD	Development and delivery of public messages, website updated and maintained record of web activity and usage, Youth education curriculum updated and expanded, Master Gardeners trained annually and participate in stormwater education activities.	159,506 (9,500 outreach design consultant)	3 - 60
<b>B-3 Develop Source-Specific Outreach Materials and Delivery Methods for use by Stormwater Managers</b>	URI / DEM, DOT, MS4s	Source-specific materials updated and make readily available to MS4s and others, New materials developed for targeted audiences to support ordinance adoption; Materials created and delivered to help implement education plans in TMDL areas.	104,267 (14,500 outreach design consultant)	3 - 58

<b>TASKS</b>	<b>Lead / Support</b>	<b>Deliverables</b>	<b>Grant Budget</b>	<b>Month1</b>
<b>B-4 Citizen Water Quality Monitoring</b>	DOT or other MS4 Lab support by RI Health or URI Watershed Watch	Four sampling locations monitored biweekly spring-fall by MS4 staff or volunteers. Volunteer training, equipment, sampling protocols, supplies, analytical services, and monitoring results. Yrs. 2-5.	12,000	22 - 54
<b>C. PROJECT MANAGEMENT AND COORDINATION</b>				
<b>C-1 Implementation Schedule and Reporting</b>	URI / DEM, DOT	Annual work plans finalized with input from project partners and MS4s, Monthly budget reports and progress summaries, Annual progress reports	27,948  (2,000 SRICD)	1 - 60
<b>C-2 Project Coordination and Communication</b>	URI / DEM, DOT	Record of coordination meetings and electronic communication.	48,463  (2,000 SRICD)	1 - 60
<b>C-3 Evaluation and Assessment</b>	URI / DEM, DOT	Completed needs assessments with summary results, Progress evaluations consistent with permit compliance measures	36,533  (9,500 Outreach design consultant and 2,000 SRICD)	1 - 60
<b>TOTAL REQUESTED</b>			<b>\$850,000</b>	

<sup>1</sup> Month numbers are based on the grant period. The first month begins on the date of the grant agreement approval. Month two begins on same number day of the following calendar month. Sub-Task Deliverables are to be submitted to the Department within one month of completion.



**PROJECT MANAGER:**

Name: Lorraine Joubert, NEMO Program Director  
Address: University of Rhode Island Cooperative Extension  
Natural Resources Science  
Coastal Institute in Kingston  
1 Greenhouse Road  
Kingston, RI 02881  
Tel: 401-874-2138  
Fax: 401-874-4561  
Email: ljoubert@uri.edu

**AUTHORIZED INSTITUTIONAL OFFICIAL**

Name: James K. Petell, PhD  
Address: Assoc VP  
Division of Research and Economic Development  
University of Rhode Island  
75 Lower College Road  
Kingston, RI 02881-1967  
Tel: 401-874-4807  
Fax: 401-874-7832

Entity Identification No. (EIN or FEIN): 223011455

DUNS No.: 144017188

Cage Code: 6G7Y5



To: Lorraine Joubert, NEMO program director  
URI Cooperative Extension

From: J. Eric Scherer, Executive Director,  
SRICD

A handwritten signature in cursive script, appearing to read "J. Eric Scherer", written in black ink.

Date: 6/10/13

Re: Intent to Collaborate on Proposed Project

The Southern Rhode Island Conservation District (SRICD) is pleased to collaborate with the University of Rhode Island on the project entitled:

**Storm Water Phase II Public Outreach, Education, Involvement and Participation**

As a partner in this project, the SRICD will provide support in the following areas:

Task 1. Erosion and Sediment Control Handbook training program. The SRICD is responsible for developing a statewide training program in use of the revised RI Soil Erosion and Sediment Control Handbook. Duties will include handbook distribution with publicity, development of 3-4 complete training modules with all presentations, exercises and other training materials, supporting factsheets and guidance documents, and delivery of workshops based on schedule established in cooperation with DEM and DOT. In addition, the SRICD will coordinate with the Erosion and Sediment Control advisory committee in development of the training program and provide staff support for this group as needed.

Task 2. DEM Storm Water Manual training. The SRICD will provide support to URI and DEM in conducting training for DOT, municipalities, and others in use of the RI Stormwater Design and Installation Standards Manual. The SRICD will assist in developing training agendas, identify qualified trainers, provide general support with workshop logistics, and manage training subcontract(s). The SRICD will work closely with the URI T2 Center to ensure the training is coordinated with related programs offered by the T2 Center.

Task 3. Specialized DOT staff training. Under this task, the SRICD will coordinate with DOT, DEM, the URI T2 center, and other members of the advisory committee to develop training specifically for DOT staff and their consultants. Topics addressed will be selected by DOT considering the following:

- Installing, maintaining and inspecting erosion and sediment controls during active construction. On this topic, the SRICD will be responsible for developing the training module and conducting the workshop.
- Contractor training in installing and maintaining RI stormwater treatment practices during active construction; and inspecting and maintaining new RI stormwater treatment practices during post construction. On these topics, the SRICD will provide support in identifying trainers, developing agendas, providing general support for workshop logistics, and managing training subcontract(s).

At a minimum, one complete training module will be developed, and the workshop conducted at least once.

Task 4. Model stormwater ordinances, technical support and training. The SRICD will provide assistance in development of model ordinances focusing on review of erosion and sediment control provisions and consistency with the revised RI Handbook. This will include review of ordinance updates and factsheets drafted by the planning consultant relating to erosion and sediment control standards, technical support to the project advisory committee, and management of the planning subcontract.

Task 5. Outreach design, evaluation, media services and implementation support. The SRICD will assist URI in implementing the public education and involvement component of this project through the following responsibilities: providing logistical support for advisory committee meetings including meeting space, agendas and minutes; identifying priority pollutants and control messages related to agricultural activities and erosion and sediment control; and helping to select areas of the state for target audience profiles based on priority pollution sources. In addition the SRICD will assist in developing a scope of work for professional services to evaluate and update the public education campaign, manage the subcontract, and assist in implementing public outreach through conservation district communication channels and outreach programs.

### **Southern Rhode Island Conservation District Budget**

Project period: 2/1/14 –1/31/15, with the option for up to four, one-year renewals subject to available funding and other provisions of the URI/SRICD subcontract.

Total Amount: \$62,300

<b>Southern RI Conservation District</b>	<b>Yr. 1</b>	<b>Yr. 2</b>	<b>Yr. 3</b>	<b>Yr. 4</b>	<b>Yr. 5</b>	<b>Total</b>
1. Erosion and Sediment Control Handbook training program and coordination with advisory committee. Task A-3.	23,000	17,500	8,700	7,500	7,500	64,200
2. DEM Storm Water manual training. Task A-1. (subcontract)	16,000	5,000	5,000	5,000	5,000	36,000
3. Specialized DOT Staff Training. Task A-5. (subcontract)	14,800	5,000	5,000	5,000	5,000	34,800
4. Model stormwater ordinances, technical support and training. (subcontract)	0	15,000	15,000	10,000	7,000	47,000
5. Outreach design, evaluation, media services and implementation support. Task B-1 & 2. (subcontract)	8,500	12,000	12,000	12,000	7,000	51,500
<b>Total SRICD</b>	<b>62,300</b>	<b>54,500</b>	<b>45,700</b>	<b>39,500</b>	<b>31,500</b>	<b>233,500</b>

cc: Clarkson Collins, Chair SRICD



## Appendix II

### BUDGET DETAIL

Project Name: Storm Water Phase II Public Outreach, Education, Involvement and Participation

#### Estimated Personnel Expenses

<b>Name</b>	<b>Title</b>	<b>Salary</b>	<b>% of Time</b>	<b>Salary Costs</b>	<b>Fringe</b>	<b>Total</b>
L. Joubert	Res. Assoc. IV	\$76,248	42%	\$173,725	\$48,643	\$222,368
L. Philo	Res. Assoc. III	\$59,822	30%	\$105,540	\$42,926	\$148,466
L. Hollister	Comm. Spec.	\$24/hr	17%	\$32,844	\$2,513	\$35,357
KV Venturini	Outreach Ctr Mgt			\$15,000		\$15,000
E. Herron	WQ Specialist			\$9,600		\$9,600
J. Sullivan	Web Designer	\$40/hr	30 hrs /yr	\$2,434	\$186	\$2,620
Student	Intern	\$10/hr	20 hrs/wk /15 wks.	\$9,000	\$689	\$9,689
<b>Totals</b>				<b>\$348,143</b>	<b>\$94,957</b>	<b>\$443,100</b>

#### Budget Estimate

	<b>Total Costs</b>	<b>Grant Requested</b>	<b>Nonfederal Match</b>		
			<b>State</b>	<b>Contractor</b>	<b>Other</b>
Estimated Personnel Expenses (from above)	443,100	443,100			
Indirect Cost	128,300	128,300			
Contractual	248,300	248,300			
Supplies	22,900	22,900			
Equipment					
Travel	7,400	7,400			
Construction					
Other--Bid advertisement					
<b>Total</b>	<b>850,000</b>	<b>850,000</b>			



**ADDENDIX III**  
State of Rhode Island and Providence Plantations Contract Offer  
**CONTRACTOR CERTIFICATION FORM**

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Contract Identification: RIDOT Contract ID#  
Description Storm Water Phase II Public Outreach Program  
Contractor Name: University of Rhode Island  
Federal Tax ID #223011455  
Address Line 1: Natural Resources Science  
Coastal Institute in Kingston  
1 Greenhouse Road  
Address Line 2: Kingston, RI 02881  
Telephone: 401-874-2138  
Fax: 401-874-4561  
email: ljoubert@uri.edu  
Contact Person: Lorraine Joubert  
Title of Contact: Research Associate  
RI Foreign Corp # \_\_\_\_\_

**NOTICE TO CONTRACTORS**

This Certification Form shall be considered an integral part of each offer made by a contractor to enter into an agreement with the State of Rhode Island and Providence Plantations. As such, submittal of this Certification Form, signed by a duly authorized representative of the offer or attesting to the accuracy of the information provided and the offer extended, is a mandatory part of any contract award.

**ALL CONTRACTS ARE SUBJECT TO THE FOLLOWING PROVISIONS AND PROCEDURES**

Contractors are expected to read and comply with all requirements.  
Failure to do so may be grounds for disqualification of the contract referenced above contained herein.

This contract is issued in accordance with the specific requirements described herein, and the State's Purchasing Laws and Regulations and other applicable State Laws. The Regulations, Terms and Conditions and basic information on How To Do Business with the State of Rhode Island are posted on the Rhode Island Vendor Information Program (RIVIP) Website (<http://www.purchasing.state.ri.us>).

Offers may not be withdrawn, except with the express permission of the State Purchasing Agent. All pricing will be considered to be firm and fixed unless otherwise indicated. After a contract award has been made, failure to meet all requirements may result in a determination of default.

Contractors are advised that this agreement will be considered without exception to be Public Records pursuant to Title 38 Chapter 2 of the Rhode Island General Laws, and will be released for inspection immediately upon request once an award has been made.

Provisions of State labor laws concerning payment of prevailing wage rates shall apply for contracts involving public works construction, alteration, or building repair work. Prevailing wage rates are posted in the information section of the RIVIP.

State Equal Employment Opportunity Compliance certificate and agreement procedures will apply to all awards for supplies or services valued at \$10,000 and more. Minority Business Enterprise policies and procedures, including subcontracting opportunities as described in Title 37 Chapter 14.1, of the Rhode Island General Laws, also apply.

In accordance with Title 7 Chapter 1.1-99 of the Rhode Island General Laws, Foreign corporations (a corporation established other than in Rhode Island) shall have the right to transact business in the State.

ALL CONTRACT AWARDS ARE SUBJECT TO THE FOLLOWING DISCLOSURES & CERTIFICATIONS

Contractors must respond to every disclosure statement a person authorized to enter into contracts

Must sign the offer and attest to the accuracy of all statements.

Indicate Yes (Y) or No (N):

Has your firm (or any principal) been subject to any of the following findings by the Federal Government, the State Of Rhode Island or any other jurisdiction? Suspension, Debarment, Indictment, Criminal Conviction. CIRCLE APPROPRIATE ITEM(S).

- N 1. Has your firm (or any principal) been fined more than \$5000 for a single violation by the Rhode Island Department of Environmental Management for violation of the Rhode Island Fresh Water Wetlands Act (RIGL 2-1-18 to 2-1-24)?
- Y 2. I/we certify that I/we will immediately disclose, in writing, to the Chief Purchasing Officer any potential conflict of interest which may occur during the course of the engagement authorized pursuant to this contract.
- Y 3. I/we acknowledge that, in accordance with Chapter 37-2-54(3) of the Rhode Island General Laws "no purchase or contract shall be binding on the State or any agency thereof unless approved by the Department of Administration or made under general regulations which the Chief Purchasing Officer may prescribe."
- Y 4. I/we certify that the above Contractor information is correct and complete.
- Y 5. I/we certify that I or my firm possesses all licenses required by Federal and State law and regulation as they pertain to the requirements of the solicitation and after made herein and shall maintain such required license(s) during the entire course of the contract resulting from the offer contained herein and should my/our license lapse or be suspended, I/we shall immediately inform the Rhode Island State Purchasing Agent in writing of such circumstance.
- Y 6. I/we certify that I/we will maintain required insurance during the entire course of the contract resulting from the offer contained herein and, should my/our insurance lapse or be suspended, I/we shall immediately inform the Rhode Island State Purchasing Agent in writing of such circumstance.
- Y 7. I/we certify that I/we understand that falsification of any information herein or failure to notify the Rhode Island State Purchasing Agent as certified herein may be grounds for suspension, debarment and/or prosecution for perjury.
- Y 8. I/we acknowledge that the provisions and procedures set forth in this form apply to this contract.
- Y 9. I/we acknowledge that I/we understand the State's Purchasing Regulations and General Terms and Conditions available at the Rhode Island Divisional Purchases Website (<http://www.purchasing.state.ri.us>) apply as the governing conditions for any contract or purchase order I may receive from the State of Rhode Island, including the offer contained herein.

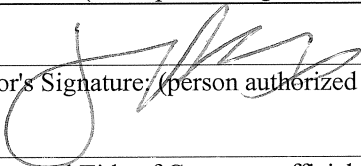
IF YOU HAVE ANSWERED "YES" TO QUESTIONS #1 - 2 OR IF YOU ARE UNABLE TO CERTIFY YES TO ITEMS #3 - 10 OF THE FOREGOING, PROVIDE DETAILS/EXPLANATION BELOW AND/OR IN AN ATTACHED STATEMENT. INCOMPLETE CERTIFICATION FORMS SHALL BE GROUNDS FOR DISQUALIFICATION OF OFFER.

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Signature below certifies (1) that the above statements and information are accurate, (2) that vendor understands and has complied with the requirements set forth herein and (3) that, where appropriate, a product is guaranteed to be free of Year 2000 date change problems and meets the Rhode Island Year 2000 Product Warranty set forth on the RIVIP Website ([www.purchasing.state.ri.us](http://www.purchasing.state.ri.us)).

Contractor's Signature:  (person authorized to enter into contracts; signature must be in ink) Date 5/9/14

Print Name and Title of Company official signing offer

**James Petell, Ph.D.**  
**Associate Vice President**  
**Intellectual Property**  
**Management & Commercialization**

**Appendix IV  
Contract Management**

In accordance with Paragraph 8, the **DOT** appoints the representatives indicated below as the Contract Officers:

Primary

Name: Peter A. Healey, Chief Civil Engineer

Address: Rhode Island Department of Transportation  
Two Capitol Hill  
Providence, Rhode Island 02903

Phone: (401) 222-2023 ext. 4039

Fax: (401)

Email: peter.healey@dot.ri.gov

Secondary

Name:

Address:

Phone:

Fax:

Email:

In accordance with Paragraph 9, the **CONTRACTOR** appoints the representatives indicated below as the Project Officers:

Primary

Name: Lorraine Joubert  
Coordinator, RI Nonpoint Education for Municipal Officials

Address: University of Rhode Island Cooperative Extension  
Natural Resources Science  
Coastal Institute in Kingston  
1 Greenhouse Road  
Kingston, RI 02881

Phone: 401-874-2138

Fax: 401-874-4561

Email: ljoubert@uri.edu

Secondary

Name:

Address:

Phone:

Fax:

Email:

In accordance with Paragraph 9, the **DEM** appoints the representatives indicated below as the Project Officers:

Primary

Name: Eric Beck, Supervising Sanitary Engineer

Address: Rhode Island Department of Environmental Management  
Office of Water Resources  
235 Promenade St.  
Providence, RI 02908

Phone: (401) 222-4700 Ext. 7202

Fax: (401) 222-3564

Email: eric.beck@dem.ri.gov

## **Appendix V Payments and Reports Schedule**

The **CONTRACTOR** agrees to provide (a) three single-sided, single-spaced copies of the final, **DOT**-approved report for reproduction purposes and (b) a digital version of the final document as well as any other documents, maps, images, outreach materials, or other publications resulting from **Appendix I-- Scope of Work**.

Multiple payments under this agreement will be made in the form of reimbursement upon submission of SubTask deliverables. See Deliverables /Budget Tables for Reimbursement Amount (Budget) and Deliverable Dates (Month) (Start Month is February 1, 2014). Payment is subject to DEM technical review for accuracy and compliance.

Appropriate documentation of billable expenses shall include payroll summary sheets, which identify the employee, the period (e.g., dates) worked and the expense incurred for that work. Non-personnel expenses shall be documented by canceled check whenever practicable and may be required at the option of the **DOT**. Documentation shall be consistent with requirements of OMB-A21 and OMB-A110.

Documentation of matching expenses in the amount of zero dollars (\$0) shall be presented with the request for reimbursement in order to receive payment. Failure to document match at the required rate may result in refusal, reduction or withholding of the requested payment.

Narrative, fiscal reports and other deliverables shall be sent to Contract Management Officer:

Peter A. Healey, Chief Civil Engineer  
Rhode Island Department of Transportation  
Two Capitol Hill  
Providence, Rhode Island 02903

And the **DEM** Project Officer:

Eric Beck, Supervising Sanitary Engineer  
Rhode Island Department of Environmental Management  
Office of Water Resources  
235 Promenade St.  
Providence, RI 02908

The **DEM** Project Officer shall review all narrative reports for technical accuracy and to ensure compliance with the requirements of the **DOT**'s obligations pursuant to Storm Water Phase II Public Outreach and Education and aspects of Public Involvement and Participation management measures as discussed in **Appendix I--Scope of Work**. Once this review is complete the **DEM** Project Officer shall forward **DEM**'s findings to the Contract Officer. It shall be the obligation and purview of the Contract Officer to make final payment approval.

All reports are due in accordance with the **Appendix I--Scope of Work**. Failure to provide acceptable program and fiscal reports within the prescribed time frame may result in a delay of payment or the withholding of funds to the **CONTRACTOR**.

## Appendix VI Fiscal Assurances

The **CONTRACTOR** agrees to segregate all receipts and disbursements pertaining to this Agreement from recipients and disbursements from all other sources, whether by separate accounts or by utilizing a fiscal code system.

The **CONTRACTOR** assures a system of adequate internal control will be implemented to ensure a separation of duties in all cash transactions.

The **CONTRACTOR** assures the existence of an audit trail, which includes: cancelled checks, voucher authorization, invoices, receiving reports, and time and distribution reports.

The **CONTRACTOR** assures a separate subsidiary ledger of equipment and property will be maintained.

The **CONTRACTOR** agrees any unexpended funds from this Agreement are to be returned to the **DOT** at the end of the time of performance unless the **DOT** gives written consent for their retention.

The following federal requirements shall apply as indicated:

- |                             |   |
|-----------------------------|---|
| OMB circular a-21           | cost principles for educational institutions  |
| OMB circular a-87           | cost principles applicable to grants and contracts with state and local governments   |
| OMB circular a-102          | uniform administrative requirements for grants-to-aid state and local governments   |
| OMB circular a-110          | uniform administrative requirements for grants and agreements with institutions of higher education, hospitals, and other nonprofit organizations |
| OMB circular a-122          | cost principles for nonprofit organizations   |
| OMB circular a-21 and a-122 | prohibition against using federal or matching funds for lobbying or political activities  |

If the **CONTRACTOR** expends federal awards during the **CONTRACTOR**'s particular fiscal year of \$300,000 or more, then OMB circular a-133, Audits of **STATE**, Local Governments and Nonprofit Organizations shall also apply.

This agreement may be funded in whole or in part with federal funds. If so, the cfda reference number is 66-419.

**Appendix VII**  
**Notice to Departmental Contractors Regarding**  
**Responsibilities Under Title VI Of The Civil Rights Act Of 1964**

Public and private agencies, organizations, institutions, and persons that receive federal financial assistance through the **STATE** are subject to the provisions of Title VI of the Civil Rights Act of 1964 and the implementing regulations of The United States that require that no person shall be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in its programs and activities on the Founds of race, color, or national origin. It is the responsibility of each service **CONTRACTOR** to acquaint itself with all of the provisions of the Title VI regulations. A copy of the regulations is available upon request at <http://www.maec.org/laws/title6.html>.

**Appendix VIII**  
**Notice to Departmental Contractors Regarding**  
**Responsibilities Under Section 504 of the Rehabilitation Act Of 1973**

Public and private agencies, organizations, institutions, and persons that receive federal financial assistance through the **STATE** are subject to the provisions of 504 of the Rehabilitation Act of 1973 and the implementing regulations of the which prohibits discrimination against handicapped persons in or other social services or benefits.

It is the responsibility of each service **CONTRACTOR** to acquaint itself with all of the provisions of the Section 504 regulations. A copy of the regulations is available upon request at <http://www.dol.gov/oasam/regs/statutes/sec504.htm>.



**Appendix IX**  
**Contractor Responsibilities Regarding**  
**Fair Share for Procurement, Construction and Subcontracting**

The **CONTRACTOR** agrees to comply with EPA's Program for Utilization of Small, Minority and Women's Business Enterprises in procurement under assistance agreements in accordance with the following, as appropriate.

- a. The recipient must ensure to the fullest extent possible that at least 10 percent of Federal funds for prime contracts or subcontracts for supplies, construction, equipment or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women, and historically black colleges and universities.

The recipient agrees to include in its bid documents an MBE "Fair Share" percentage (7%) and a WBE "Fair Share" percentage (3%) which total at least 10 percent and to require all of its prime **CONTRACTORS** to include in their bid documents for subcontracts an MBE "Fair Share" percentage (7%) and a WBE "Fair Share" percentage (3%) which total at least 10 percent.

To evaluate compliance with the "Fair Share" policy, the recipient also agrees to comply with the six affirmative steps stated in 40 CFR 30.44(b), 31.36(e) or 35.6580(a), as appropriate.

The recipient agrees to submit EPA Form 5700-52A "MBE/WBE Utilization Under Federal Grants, Cooperative Agreements, and Interagency Agreements", to the Contract Office by October 15<sup>th</sup> of each year. Negative reports are also required.

- b. Minority business enterprises shall be included in all procurements and construction projects and shall be awarded a minimum of ten percent (10%) of the dollar value of the entire procurement or project in accordance with Minority Business Enterprise (RIGL 37-14.1) and the "Regulations Governing Participation by Minority Business Enterprises in **STATE** Funded and Directed Public Construction Projects, Construction Contracts and Procurement Contracts for Goods and Services," as amended.

## **Appendix X**

### **Drug-Free Workplace Policy**

Drug use and abuse are subjects of immediate concern in our society. These problems are extremely complex and ones for which there are no easy solutions. From a safety perspective, the users of drugs may impair the well-being of all employees, the public at large, and result in damage to property. Therefore, it is the policy of the **STATE** that the unlawful manufacture, possession, or use of a controlled substance is prohibited in the workplace. Any employee (s) violating this policy will be subject to discipline up to and including termination. An employee may also be discharged or otherwise disciplined for a conviction involving illicit drug behavior, regardless of whether the employee (s) conduct was detected within employment hours or whether his/her actions were connected in any way with his or her employment. The specifics of this policy are as follows:

Any unauthorized employee who gives or in any way transfers a controlled substance to another person or sells or manufactures a controlled substance while on duty, regardless of whether the employee is on or off the premises of the employer will be subject to discipline up to and including termination.

The term "controlled substance" means any drugs listed in 21 USC, section 812 and other federal regulations. Generally, all illegal drugs and substances are included, such as marijuana, heroin, morphine, cocaine, codeine or opium additives, LSD, DMT, STP, amphetamines, methamphetamines, and barbiturates.

Each employee is required by law to inform the agency within five (5) days after he/she is convicted for violation of any federal or **STATE** criminal drug statute. A conviction means a finding of guilt (including a plea of *nolo contendere*) or the imposition of a sentence by a judge or jury in any federal or **STATE** court.

The employer (**CONTRACTOR** or subcontractor) will be responsible for reporting conviction(s) to the appropriate federal granting source within ten (10) days after receiving notice from the employee or otherwise receives actual notice of such conviction(s). All convictions must be reported in writing to the Office of Personnel Administration (OPA) time frame.

If an employee is convicted of violating any criminal drug statute while on duty, he/she will be subject to discipline up to and including termination. Conviction (s) while off duty may result in discipline or discharge.

The **STATE** encourages any employee with a substance problem to seek assistance from the Rhode Island Employee Assistance Program (RIEAP).

The law requires all employees to abide by this policy.

**Appendix XI**  
**Drug-Free Workplace Policy Contractor Certificate of Compliance**

I, James K Petell, a **CONTRACTOR** doing business with the **STATE**, hereby acknowledge that I have received a copy of the **STATE** policy regarding the maintenance of a drug-free workplace. I have been informed that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance (to include but not limited to such drugs as marijuana, heroin, cocaine, pep, and crack, and may also include legal drugs which may be prescribed by a licensed physician if they are abused), is prohibited on **STATE** premises or while conducting **STATE** business. I acknowledge that my employees must report for work in a fit condition to perform their duties.

As a condition for contracting with the **STATE**, as a result of the federal omnibus drug act, I will require my employees to abide by the **STATE's** policy. Further, I recognize that any violation of this policy may result in termination of the contract.

---

 **CONTRACTOR's Authorized Agent/Signature** 5/9/14  
**Date**

**James Petell, Ph.D.**  
**Associate Vice President**  
**Intellectual Property**  
**Management & Commercialization**

**Appendix XII  
Drug-Free Workplace Policy  
Subcontractor Compliance**

I, James K Petell, a **CONTRACTOR** doing business with the **STATE**, hereby certify that all approved subcontractors performing services under the terms of this agreement will have executed written contracts with this agency, and all contracts will be maintained on file and produced upon request. All contracts must contain language identical to the provisions of this agreement as follows:

\_\_\_\_\_  
**CONTRACTOR's Authorized Agent/Signature**

5/9/14  
\_\_\_\_\_  
**Date**

**James Petell, Ph.D.  
Associate Vice President  
Intellectual Property  
Management & Commercialization**

**Appendix XIII**  
**Contractor Certificate of Compliance**  
**Regarding Environmental Tobacco Smoke**

Public Law 103-227, Part C - Environmental Tobacco Smoke, Also Known As The Pro-Children Act of 1994 (**act**), requires that smoking not be permitted in any portion of any indoor facility owned or leased or contracted for by an entity and used routinely or regularly for the provision of health, day care, education or library services to children under the age of 18, if the services are funded by federal programs either directly or through state or local governments, by federal grant, contract, loan, or loan guarantee. The law does not apply to children's services provided in private residences, facilities funded solely by Medicare or Medicaid funds, and portions of facilities used for inpatient drug or alcohol treatment. Failure to comply with the provisions of the law may result in the imposition of a civil monetary penalty of up to \$1000 per day and/or the imposition of an administrative compliance order on the responsible entity.

Signature below certifies that **CONTRACTOR** will comply with the requirements of the **act**.

\_\_\_\_\_ **CONTRACTOR's Authorized Agent/Signature**



5/9/14  
\_\_\_\_\_ **Date**

**James Petell, Ph.D.**  
**Associate Vice President**  
**Intellectual Property**  
**Management & Commercialization**

**Appendix XIV  
Contractor Certificate of Compliance  
Regarding Hotel and Motel Safety**

**CONTRACTOR** certifies that all requisitions for conference, meeting, convention, or training space funding in whole or in part with federal funds complies with the Hotel and Motel Fire Safety Act of 1990.

If a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the **DOT** may terminate this Agreement for cause of default.

\_\_\_\_\_  
**CONTRACTOR's Authorized Agent/Signature**

5/9/14  
\_\_\_\_\_  
**Date**

**James Petell, Ph.D.  
Associate Vice President  
Intellectual Property  
Management & Commercialization**

**Appendix XV**  
**Certification Regarding Debarment, Suspension, And Other Responsibility Matters -**  
**Primary Covered Transactions**

**CONTRACTOR** certifies to the best of its knowledge and belief, that it and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
- b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
- c. Are not presently indicted or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any offenses enumerated in Item b of this certification; and
- d. Have not within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

Where the prospective primary participant is unable to certify to any of the statement in this certification, such prospective participant shall attach an explanation to this proposal.

  
\_\_\_\_\_  
**CONTRACTOR's Authorized Agent/Signature** 5/9/14  
**Date**

**James Petell, Ph.D.**  
**Associate Vice President**  
**Intellectual Property**  
**Management & Commercialization**

TASKS	Lead / Support	Deliverables	Grant Budget	Month <sup>1</sup>
<p><b>A-5 Specialized DOT Staff Training</b></p> <ul style="list-style-type: none"> <li>• Installing, maintaining and inspection erosion and sediment controls during active construction;</li> <li>• Contractor training in installing and maintaining RI stormwater treatment practices during active construction;</li> <li>• Inspecting and maintaining new RI stormwater treatment practices during Post construction</li> </ul>	SRICD / DOT, DEM, URI	Minimum of 1 training module and 1 workshop	49,186 (34,800 consultant)	1 - 58
<p><b>A-6 MS4 Training in Developing a TMDL Implementation Plan</b></p> <p>A-6.1 Organize MS4 workshop series on implementing TMDL plans and assist with development of educational materials. Topics: TMDL Basics, Components of the Plan, Budget Planning.</p>	DEM/URI	Workshop schedule, coordination with MS4s and speakers, workshop organization, registration, and other meeting logistics, and DEM TMDL guidance documents.	32,050	12 - 54
<p><b>A-7 Technical Support to MS4s in Public Education and Involvement Methods</b></p> <p>A-7.1 Coordinate networking meetings with MS4s on implementing education programs in TMDL watersheds</p> <p>A-7.2 Work with MS4s to develop public outreach plans for selected TMDL watersheds</p> <p>A-7.3 Provide resources and guidance to MS4s in developing effective outreach programs</p>	URI / DEM	Networking meetings organized with MS4s; Four education plans developed for selected TMDL watersheds, Coordination with DEM and MS4s on renewal of Permit minimum measures one and two.	67,025 (9,500 outreach design and media services)	15 - 58
<p><b>A-8 MS4 Workshops on LID / Pollution Prevention Topics</b></p>			19,807	
<p>A-8.1 Workshops for non-traditional MS4s on LID standards and enforceable policies</p>	URI / DEM	Workshop held based on MS4 interest		24 - 54
<p>A-8.2 Pollution prevention training at municipal public works facilities</p>	DOT	MS4 DPW training and facility inspection (based on support by DOT and T2 Center)		24 - 54
<p>A-8.3 Rain garden training for landscapers, MS4s and volunteers</p>	URI / DEM	Workshop with rain garden construction		13 - 36



<b>TASKS</b>	<b>Lead / Support</b>	<b>Deliverables</b>	<b>Grant Budget</b>	<b>Month<sup>1</sup></b>
A-8.4 Field training for MS4 staff in rain garden / bioretention planting and maintenance	URI / Co-sponsor TBD	Workshop training module customized for the BMP; Maintenance and inspection completed as part of training. Workshop held based on MS4 interest		24 - 54
A-8.5 Landscape care and turf management for MS4s <ul style="list-style-type: none"> <li>Employee Training in Lawn and Landscape Care Basics. Natural Turf and Landscape Management for MS4 Grounds Managers. Basics and Onsite Composting topics</li> </ul>	URI / Co-sponsor TBD	Workshop held based on MS4 interest		24 - 54
<b>B. MODEL STORMWATER EDUCATION AND INVOLVEMENT PROGRAM</b>				
B-1 Evaluate Rhode Island Stormwater Solutions and Develop a Marketing Plan	URI with consultant / SRICD	Target audience profiles for statewide outreach and 3 selected areas of the state, Marketing plan with outcome measures.	42,795 (8,500 outreach design consultant)	1 - 12
B-2 Develop and Deliver Consistent Public Messages on Preventing Stormwater Pollution, Using a Variety of Media and Activities. <ul style="list-style-type: none"> <li>B-2.1 Update and Maintain the Project Website</li> <li>B-2.2 Promote Youth Education on Stormwater Pollution Prevention</li> </ul>	URI NEMO / URI Outreach Center/ SRICD	Development and delivery of public messages, website updated and maintained record of web activity and usage, Youth education curriculum updated and expanded, Master Gardeners trained annually and participate in stormwater education activities.	159,506 (9,500 outreach design consultant)	3 - 60
B-3 Develop Source-Specific Outreach Materials and Delivery Methods for use by Stormwater Managers	URI / DEM, DOT, MS4s	Source-specific materials updated and make readily available to MS4s and others, New materials developed for targeted audiences to support ordinance adoption; Materials created and delivered to help implement education plans in TMDL areas.	104,267 (14,500 outreach design consultant)	3 - 58

<b>TASKS</b>	<b>Lead / Support</b>	<b>Deliverables</b>	<b>Grant Budget</b>	<b>Month1</b>
<b>B-4 Citizen Water Quality Monitoring</b>	DOT or other MS4 Lab support by RI Health or URI Watershed Watch	Four sampling locations monitored biweekly spring-fall by MS4 staff or volunteers. Volunteer training, equipment, sampling protocols, supplies, analytical services, and monitoring results. Yrs. 2-5.	12,000	22 - 54
<b>C. PROJECT MANAGEMENT AND COORDINATION</b>				
<b>C-1 Implementation Schedule and Reporting</b>	URI / DEM, DOT	Annual work plans finalized with input from project partners and MS4s, Monthly budget reports and progress summaries, Annual progress reports	27,948  (2,000 SRICD)	1 - 60
<b>C-2 Project Coordination and Communication</b>	URI / DEM, DOT	Record of coordination meetings and electronic communication.	48,463  (2,000 SRICD)	1 - 60
<b>C-3 Evaluation and Assessment</b>	URI / DEM, DOT	Completed needs assessments with summary results, Progress evaluations consistent with permit compliance measures	36,533  (9,500 Outreach design consultant and 2,000 SRICD)	1 - 60
<b>TOTAL REQUESTED</b>			<b>\$850,000</b>	

<sup>1</sup> Month numbers are based on the grant period. The first month begins on the date of the grant agreement approval. Month two begins on same number day of the following calendar month. Sub-Task Deliverables are to be submitted to the Department within one month of completion.



**PROJECT MANAGER:**

Name: Lorraine Joubert, NEMO Program Director  
Address: University of Rhode Island Cooperative Extension  
Natural Resources Science  
Coastal Institute in Kingston  
1 Greenhouse Road  
Kingston, RI 02881  
Tel: 401-874-2138  
Fax: 401-874-4561  
Email: ljoubert@uri.edu

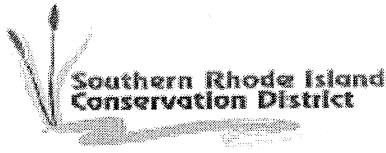
**AUTHORIZED INSTITUTIONAL OFFICIAL**

Name: James K. Petell, PhD  
Address: Assoc VP  
Division of Research and Economic Development  
University of Rhode Island  
75 Lower College Road  
Kingston, RI 02881-1967  
Tel: 401-874-4807  
Fax: 401-874-7832

Entity Identification No. (EIN or FEIN): 223011455

DUNS No.: 144017188

Cage Code: 6G7Y5



To: Lorraine Joubert, NEMO program director  
URI Cooperative Extension

From: J. Eric Scherer, Executive Director,  
SRICD

A handwritten signature in black ink, appearing to read "J. Eric Scherer", written in a cursive style.

Date: 6/10/13

Re: Intent to Collaborate on Proposed Project

The Southern Rhode Island Conservation District (SRICD) is pleased to collaborate with the University of Rhode Island on the project entitled:

**Storm Water Phase II Public Outreach, Education, Involvement and Participation**

As a partner in this project, the SRICD will provide support in the following areas:

Task 1. Erosion and Sediment Control Handbook training program. The SRICD is responsible for developing a statewide training program in use of the revised RI Soil Erosion and Sediment Control Handbook. Duties will include handbook distribution with publicity, development of 3-4 complete training modules with all presentations, exercises and other training materials, supporting factsheets and guidance documents, and delivery of workshops based on schedule established in cooperation with DEM and DOT. In addition, the SRICD will coordinate with the Erosion and Sediment Control advisory committee in development of the training program and provide staff support for this group as needed.

Task 2. DEM Storm Water Manual training. The SRICD will provide support to URI and DEM in conducting training for DOT, municipalities, and others in use of the RI Stormwater Design and Installation Standards Manual. The SRICD will assist in developing training agendas, identify qualified trainers, provide general support with workshop logistics, and manage training subcontract(s). The SRICD will work closely with the URI T2 Center to ensure the training is coordinated with related programs offered by the T2 Center.

Task 3. Specialized DOT staff training. Under this task, the SRICD will coordinate with DOT, DEM, the URI T2 center, and other members of the advisory committee to develop training specifically for DOT staff and their consultants. Topics addressed will be selected by DOT considering the following:

- Installing, maintaining and inspecting erosion and sediment controls during active construction. On this topic, the SRICD will be responsible for developing the training module and conducting the workshop.
  - Contractor training in installing and maintaining RI stormwater treatment practices during active construction; and inspecting and maintaining new RI stormwater treatment practices during post construction. On these topics, the SRICD will provide support in identifying trainers, developing agendas, providing general support for workshop logistics, and managing training subcontract(s).
- At a minimum, one complete training module will be developed, and the workshop conducted at least once.

Task 4. Model stormwater ordinances, technical support and training. The SRICD will provide assistance in development of model ordinances focusing on review of erosion and sediment control provisions and consistency with the revised RI Handbook. This will include review of ordinance updates and factsheets drafted by the planning consultant relating to erosion and sediment control standards, technical support to the project advisory committee, and management of the planning subcontract.

Task 5. Outreach design, evaluation, media services and implementation support. The SRICD will assist URI in implementing the public education and involvement component of this project through the following responsibilities: providing logistical support for advisory committee meetings including meeting space, agendas and minutes; identifying priority pollutants and control messages related to agricultural activities and erosion and sediment control; and helping to select areas of the state for target audience profiles based on priority pollution sources. In addition the SRICD will assist in developing a scope of work for professional services to evaluate and update the public education campaign, manage the subcontract, and assist in implementing public outreach through conservation district communication channels and outreach programs.

### Southern Rhode Island Conservation District Budget

Project period: 2/1/14 –1/31/15, with the option for up to four, one-year renewals subject to available funding and other provisions of the URI/SRICD subcontract.

Total Amount: \$62,300

<b>Southern RI Conservation District</b>	<b>Yr. 1</b>	<b>Yr. 2</b>	<b>Yr. 3</b>	<b>Yr. 4</b>	<b>Yr. 5</b>	<b>Total</b>
1. Erosion and Sediment Control Handbook training program and coordination with advisory committee. Task A-3.	23,000	17,500	8,700	7,500	7,500	64,200
2. DEM Storm Water manual training. Task A-1. (subcontract)	16,000	5,000	5,000	5,000	5,000	36,000
3. Specialized DOT Staff Training. Task A-5. (subcontract)	14,800	5,000	5,000	5,000	5,000	34,800
4. Model stormwater ordinances, technical support and training. (subcontract)	0	15,000	15,000	10,000	7,000	47,000
5. Outreach design, evaluation, media services and implementation support. Task B-1 & 2. (subcontract)	8,500	12,000	12,000	12,000	7,000	51,500
<b>Total SRICD</b>	<b>62,300</b>	<b>54,500</b>	<b>45,700</b>	<b>39,500</b>	<b>31,500</b>	<b>233,500</b>

cc: Clarkson Collins, Chair SRICD

## Appendix II

### BUDGET DETAIL

Project Name: Storm Water Phase II Public Outreach, Education, Involvement and Participation

#### Estimated Personnel Expenses

Name	Title	Salary	% of Time	Salary Costs	Fringe	Total
L. Joubert	Res. Assoc. IV	\$76,248	42%	\$173,725	\$48,643	\$222,368
L. Philo	Res. Assoc. III	\$59,822	30%	\$105,540	\$42,926	\$148,466
L. Hollister	Comm. Spec.	\$24/hr	17%	\$32,844	\$2,513	\$35,357
KV Venturini	Outreach Ctr Mgt			\$15,000		\$15,000
E. Herron	WQ Specialist			\$9,600		\$9,600
J. Sullivan	Web Designer	\$40/hr	30 hrs /yr	\$2,434	\$186	\$2,620
Student	Intern	\$10/hr	20 hrs/wk /15 wks.	\$9,000	\$689	\$9,689
<b>Totals</b>				<b>\$348,143</b>	<b>\$94,957</b>	<b>\$443,100</b>

#### Budget Estimate

	Total Costs	Grant Requested	Nonfederal Match		
			State	Contractor	Other
Estimated Personnel Expenses (from above)	443,100	443,100			
Indirect Cost	128,300	128,300			
Contractual	248,300	248,300			
Supplies	22,900	22,900			
Equipment					
Travel	7,400	7,400			
Construction					
Other--Bid advertisement					
<b>Total</b>	<b>850,000</b>	<b>850,000</b>			

**ADDENDIX III**  
State of Rhode Island and Providence Plantations Contract Offer  
**CONTRACTOR CERTIFICATION FORM**

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Contract Identification: RIDOT Contract ID#  
Description Storm Water Phase II Public Outreach Program  
Contractor Name: University of Rhode Island  
Federal Tax ID #223011455  
Address Line 1: Natural Resources Science  
Coastal Institute in Kingston  
1 Greenhouse Road  
Address Line 2: Kingston, RI 02881  
Telephone: 401-874-2138  
Fax: 401-874-4561  
email: ljoubert@uri.edu  
Contact Person: Lorraine Joubert  
Title of Contact: Research Associate  
RI Foreign Corp # \_\_\_\_\_

**NOTICE TO CONTRACTORS**

This Certification Form shall be considered an integral part of each offer made by a contractor to enter into an agreement with the State of Rhode Island and Providence Plantations. As such, submittal of this Certification Form, signed by a duly authorized representative of the offer or attesting to the accuracy of the information provided and the offer extended, is a mandatory part of any contract award.

**ALL CONTRACTS ARE SUBJECT TO THE FOLLOWING PROVISIONS AND PROCEDURES**

Contractors are expected to read and comply with all requirements.  
Failure to do so may be grounds for disqualification of the contract referenced above contained herein.

This contract is issued in accordance with the specific requirements described herein, and the State's Purchasing Laws and Regulations and other applicable State Laws. The Regulations, Terms and Conditions and basic information on How To Do Business with the State of Rhode Island are posted on the Rhode Island Vendor Information Program (RIVIP) Website (<http://www.purchasing.state.ri.us>).

Offers may not be withdrawn, except with the express permission of the State Purchasing Agent. All pricing will be considered to be firm and fixed unless otherwise indicated. After a contract award has been made, failure to meet all requirements may result in a determination of default.

Contractors are advised that this agreement will be considered without exception to be Public Records pursuant to Title 38 Chapter 2 of the Rhode Island General Laws, and will be released for inspection immediately upon request once an award has been made.

Provisions of State labor laws concerning payment of prevailing wage rates shall apply for contracts involving public works construction, alteration, or building repair work. Prevailing wage rates are posted in the information section of the RIVIP.

State Equal Employment Opportunity Compliance certificate and agreement procedures will apply to all awards for supplies or services valued at \$10,000 and more. Minority Business Enterprise policies and procedures, including subcontracting opportunities as described in Title 37 Chapter 14.1, of the Rhode Island General Laws, also apply.

In accordance with Title 7 Chapter 1.1-99 of the Rhode Island General Laws, Foreign corporations (a corporation established other than in Rhode Island) shall have the right to transact business in the State.



ALL CONTRACT AWARDS ARE SUBJECT TO THE FOLLOWING DISCLOSURES & CERTIFICATIONS

Contractors must respond to every disclosure statement a person authorized to enter into contracts

Must sign the offer and attest to the accuracy of all statements.

Indicate Yes (Y) or No (N):

Has your firm (or any principal) been subject to any of the following findings by the Federal Government, the State Of Rhode Island or any other jurisdiction? Suspension, Debarment, Indictment, Criminal Conviction. CIRCLE APPROPRIATE ITEM(S).

- N 1. Has your firm (or any principal) been fined more than \$5000 for a single violation by the Rhode Island Department of Environmental Management for violation of the Rhode Island Fresh Water Wetlands Act (RIGL 2-1-18 to 2-1-24)?
- Y 2. I/we certify that I/we will immediately disclose, in writing, to the Chief Purchasing Officer any potential conflict of interest which may occur during the course of the engagement authorized pursuant to this contract.
- Y 3. I/we acknowledge that, in accordance with Chapter 37-2-54(3) of the Rhode Island General Laws "no purchase or contract shall be binding on the State or any agency thereof unless approved by the Department of Administration or made under general regulations which the Chief Purchasing Officer may prescribe."
- Y 4. I/we certify that the above Contractor information is correct and complete.
- Y 5. I/we certify that I or my firm possesses all licenses required by Federal and State law and regulation as they pertain to the requirements of the solicitation and after made herein and shall maintain such required license(s) during the entire course of the contract resulting from the offer contained herein and should my/our license lapse or be suspended, I/we shall immediately inform the Rhode Island State Purchasing Agent in writing of such circumstance.
- Y 6. I/we certify that I/we will maintain required insurance during the entire course of the contract resulting from the offer contained herein and, should my/our insurance lapse or be suspended, I/we shall immediately inform the Rhode Island State Purchasing Agent in writing of such circumstance.
- Y 7. I/we certify that I/we understand that falsification of any information herein or failure to notify the Rhode Island State Purchasing Agent as certified herein may be grounds for suspension, debarment and/or prosecution for perjury.
- Y 8. I/we acknowledge that the provisions and procedures set forth in this form apply to this contract.
- Y 9. I/we acknowledge that I/we understand the State's Purchasing Regulations and General Terms and Conditions available at the Rhode Island Divisional Purchases Website (<http://www.purchasing.state.ri.us>) apply as the governing conditions for any contract or purchase order I may receive from the State of Rhode Island, including the offer contained herein.

IF YOU HAVE ANSWERED "YES" TO QUESTIONS #1 - 2 OR IF YOU ARE UNABLE TO CERTIFY YES TO ITEMS #3 - 10 OF THE FOREGOING, PROVIDE DETAILS/EXPLANATION BELOW AND/OR IN AN ATTACHED STATEMENT. INCOMPLETE CERTIFICATION FORMS SHALL BE GROUNDS FOR DISQUALIFICATION OF OFFER.

Signature below certifies (1) that the above statements and information are accurate, (2) that vendor understands and has complied with the requirements set forth herein and (3) that, where appropriate, a product is guaranteed to be free of Year 2000 date change problems and meets the Rhode Island Year 2000 Product Warranty set forth on the RIVIP Website ([www.purchasing.state.ri.us](http://www.purchasing.state.ri.us)).

Contractor's Signature: (person authorized to enter into contracts; signature must be in ink)

Date 5/9/14

Print Name and Title of Company official signing offer

**James Petell, Ph.D.**  
**Associate Vice President**  
**Intellectual Property**  
**Management & Commercialization**

**Appendix IV  
Contract Management**

In accordance with Paragraph 8, the **DOT** appoints the representatives indicated below as the Contract Officers:

Primary

Name: Peter A. Healey, Chief Civil Engineer

Address: Rhode Island Department of Transportation  
Two Capitol Hill  
Providence, Rhode Island 02903

Phone: (401) 222-2023 ext. 4039

Fax: (401)

Email: peter.healey@dot.ri.gov

Secondary

Name:

Address:

Phone:

Fax:

Email:

In accordance with Paragraph 9, the **CONTRACTOR** appoints the representatives indicated below as the Project Officers:

Primary

Name: Lorraine Joubert  
Coordinator, RI Nonpoint Education for Municipal Officials

Address: University of Rhode Island Cooperative Extension  
Natural Resources Science  
Coastal Institute in Kingston  
1 Greenhouse Road  
Kingston, RI 02881

Phone: 401-874-2138

Fax: 401-874-4561

Email: ljoubert@uri.edu

Secondary

Name:

Address:

Phone:

Fax:

Email:

In accordance with Paragraph 9, the **DEM** appoints the representatives indicated below as the Project Officers:

Primary

Name: Eric Beck, Supervising Sanitary Engineer

Address: Rhode Island Department of Environmental Management  
Office of Water Resources  
235 Promenade St.  
Providence, RI 02908

Phone: (401) 222-4700 Ext. 7202

Fax: (401) 222-3564

Email: eric.beck@dem.ri.gov

## Appendix V Payments and Reports Schedule

The **CONTRACTOR** agrees to provide (a) three single-sided, single-spaced copies of the final, **DOT**-approved report for reproduction purposes and (b) a digital version of the final document as well as any other documents, maps, images, outreach materials, or other publications resulting from **Appendix I-- Scope of Work**.

Multiple payments under this agreement will be made in the form of reimbursement upon submission of SubTask deliverables. See Deliverables /Budget Tables for Reimbursement Amount (Budget) and Deliverable Dates (Month) (Start Month is February 1, 2014). Payment is subject to DEM technical review for accuracy and compliance.

Appropriate documentation of billable expenses shall include payroll summary sheets, which identify the employee, the period (e.g., dates) worked and the expense incurred for that work. Non-personnel expenses shall be documented by canceled check whenever practicable and may be required at the option of the **DOT**. Documentation shall be consistent with requirements of OMB-A21 and OMB-A110.

Documentation of matching expenses in the amount of zero dollars (\$0) shall be presented with the request for reimbursement in order to receive payment. Failure to document match at the required rate may result in refusal, reduction or withholding of the requested payment.

Narrative, fiscal reports and other deliverables shall be sent to Contract Management Officer:

Peter A. Healey, Chief Civil Engineer  
Rhode Island Department of Transportation  
Two Capitol Hill  
Providence, Rhode Island 02903

And the **DEM** Project Officer:

Eric Beck, Supervising Sanitary Engineer  
Rhode Island Department of Environmental Management  
Office of Water Resources  
235 Promenade St.  
Providence, RI 02908

The **DEM** Project Officer shall review all narrative reports for technical accuracy and to ensure compliance with the requirements of the **DOT**'s obligations pursuant to Storm Water Phase II Public Outreach and Education and aspects of Public Involvement and Participation management measures as discussed in **Appendix I--Scope of Work**. Once this review is complete the **DEM** Project Officer shall forward **DEM**'s findings to the Contract Officer. It shall be the obligation and purview of the Contract Officer to make final payment approval.

All reports are due in accordance with the **Appendix I--Scope of Work**. Failure to provide acceptable program and fiscal reports within the prescribed time frame may result in a delay of payment or the withholding of funds to the **CONTRACTOR**.

## Appendix VI Fiscal Assurances

The **CONTRACTOR** agrees to segregate all receipts and disbursements pertaining to this Agreement from recipients and disbursements from all other sources, whether by separate accounts or by utilizing a fiscal code system.

The **CONTRACTOR** assures a system of adequate internal control will be implemented to ensure a separation of duties in all cash transactions.

The **CONTRACTOR** assures the existence of an audit trail, which includes: cancelled checks, voucher authorization, invoices, receiving reports, and time and distribution reports.

The **CONTRACTOR** assures a separate subsidiary ledger of equipment and property will be maintained.

The **CONTRACTOR** agrees any unexpended funds from this Agreement are to be returned to the **DOT** at the end of the time of performance unless the **DOT** gives written consent for their retention.

The following federal requirements shall apply as indicated:

- |                             |   |
|-----------------------------|---|
| OMB circular a-21           | cost principles for educational institutions  |
| OMB circular a-87           | cost principles applicable to grants and contracts with state and local governments   |
| OMB circular a-102          | uniform administrative requirements for grants-to-aid state and local governments   |
| OMB circular a-110          | uniform administrative requirements for grants and agreements with institutions of higher education, hospitals, and other nonprofit organizations |
| OMB circular a-122          | cost principles for nonprofit organizations   |
| OMB circular a-21 and a-122 | prohibition against using federal or matching funds for lobbying or political activities  |

If the **CONTRACTOR** expends federal awards during the **CONTRACTOR's** particular fiscal year of \$300,000 or more, then OMB circular a-133, Audits of **STATE**, Local Governments and Nonprofit Organizations shall also apply.

This agreement may be funded in whole or in part with federal funds. If so, the cfda reference number is 66-419.

**Appendix VII**  
**Notice to Departmental Contractors Regarding**  
**Responsibilities Under Title VI Of The Civil Rights Act Of 1964**

Public and private agencies, organizations, institutions, and persons that receive federal financial assistance through the **STATE** are subject to the provisions of Title VI of the Civil Rights Act of 1964 and the implementing regulations of The United States that require that no person shall be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in its programs and activities on the Founds of race, color, or national origin. It is the responsibility of each service **CONTRACTOR** to acquaint itself with all of the provisions of the Title VI regulations. A copy of the regulations is available upon request at <http://www.maec.org/laws/title6.html>.

**Appendix VIII**  
**Notice to Departmental Contractors Regarding**  
**Responsibilities Under Section 504 of the Rehabilitation Act Of 1973**

Public and private agencies, organizations, institutions, and persons that receive federal financial assistance through the **STATE** are subject to the provisions of 504 of the Rehabilitation Act of 1973 and the implementing regulations of the which prohibits discrimination against handicapped persons in or other social services or benefits.

It is the responsibility of each service **CONTRACTOR** to acquaint itself with all of the provisions of the Section 504 regulations. A copy of the regulations is available upon request at <http://www.dol.gov/oasam/regs/statutes/sec504.htm> .

**Appendix IX**  
**Contractor Responsibilities Regarding**  
**Fair Share for Procurement, Construction and Subcontracting**

The **CONTRACTOR** agrees to comply with EPA's Program for Utilization of Small, Minority and Women's Business Enterprises in procurement under assistance agreements in accordance with the following, as appropriate.

- a. The recipient must ensure to the fullest extent possible that at least 10 percent of Federal funds for prime contracts or subcontracts for supplies, construction, equipment or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women, and historically black colleges and universities.

The recipient agrees to include in its bid documents an MBE "Fair Share" percentage (7%) and a WBE "Fair Share" percentage (3%) which total at least 10 percent and to require all of its prime **CONTRACTORS** to include in their bid documents for subcontracts an MBE "Fair Share" percentage (7%) and a WBE "Fair Share" percentage (3%) which total at least 10 percent.

To evaluate compliance with the "Fair Share" policy, the recipient also agrees to comply with the six affirmative steps stated in 40 CFR 30.44(b), 31.36(e) or 35.6580(a), as appropriate.

The recipient agrees to submit EPA Form 5700-52A "MBE/WBE Utilization Under Federal Grants, Cooperative Agreements, and Interagency Agreements", to the Contract Office by October 15<sup>th</sup> of each year. Negative reports are also required.

- b. Minority business enterprises shall be included in all procurements and construction projects and shall be awarded a minimum of ten percent (10%) of the dollar value of the entire procurement or project in accordance with Minority Business Enterprise (RIGL 37-14.1) and the "Regulations Governing Participation by Minority Business Enterprises in **STATE** Funded and Directed Public Construction Projects, Construction Contracts and Procurement Contracts for Goods and Services," as amended.



## **Appendix X**

### **Drug-Free Workplace Policy**

Drug use and abuse are subjects of immediate concern in our society. These problems are extremely complex and ones for which there are no easy solutions. From a safety perspective, the users of drugs may impair the well-being of all employees, the public at large, and result in damage to property. Therefore, it is the policy of the **STATE** that the unlawful manufacture, possession, or use of a controlled substance is prohibited in the workplace. Any employee (s) violating this policy will be subject to discipline up to and including termination. An employee may also be discharged or otherwise disciplined for a conviction involving illicit drug behavior, regardless of whether the employee (s) conduct was detected within employment hours or whether his/her actions were connected in any way with his or her employment. The specifics of this policy are as follows:

Any unauthorized employee who gives or in any way transfers a controlled substance to another person or sells or manufactures a controlled substance while on duty, regardless of whether the employee is on or off the premises of the employer will be subject to discipline up to and including termination.

The term "controlled substance" means any drugs listed in 21 USC, section 812 and other federal regulations. Generally, all illegal drugs and substances are included, such as marijuana, heroin, morphine, cocaine, codeine or opium additives, LSD, DMT, STP, amphetamines, methamphetamines, and barbiturates.

Each employee is required by law to inform the agency within five (5) days after he/she is convicted for violation of any federal or **STATE** criminal drug statute. A conviction means a finding of guilt (including a plea of *nolo contendere*) or the imposition of a sentence by a judge or jury in any federal or **STATE** court.

The employer (**CONTRACTOR** or subcontractor) will be responsible for reporting conviction(s) to the appropriate federal granting source within ten (10) days after receiving notice from the employee or otherwise receives actual notice of such conviction(s). All convictions must be reported in writing to the Office of Personnel Administration (OPA) time frame.

If an employee is convicted of violating any criminal drug statute while on duty, he/she will be subject to discipline up to and including termination. Conviction (s) while off duty may result in discipline or discharge.


The **STATE** encourages any employee with a substance problem to seek assistance from the Rhode Island Employee Assistance Program (RIEAP).

The law requires all employees to abide by this policy.

**Appendix XI**  
**Drug-Free Workplace Policy Contractor Certificate of Compliance**

I, James K Petell, a **CONTRACTOR** doing business with the **STATE**, hereby acknowledge that I have received a copy of the **STATE** policy regarding the maintenance of a drug-free workplace. I have been informed that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance (to include but not limited to such drugs as marijuana, heroin, cocaine, pep, and crack, and may also include legal drugs which may be prescribed by a licensed physician if they are abused), is prohibited on **STATE** premises or while conducting **STATE** business. I acknowledge that my employees must report for work in a fit condition to perform their duties.

As a condition for contracting with the **STATE**, as a result of the federal omnibus drug act, I will require my employees to abide by the **STATE's** policy. Further, I recognize that any violation of this policy may result in termination of the contract.

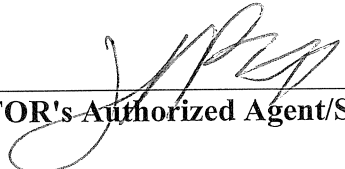
 \_\_\_\_\_  
**CONTRACTOR's Authorized Agent/Signature** 5/9/14  
**Date**

**James Petell, Ph.D.**  
**Associate Vice President**  
**Intellectual Property**  
**Management & Commercialization**

**Appendix XII  
Drug-Free Workplace Policy  
Subcontractor Compliance**

I, James K Petell, a **CONTRACTOR** doing business with the **STATE**, hereby certify that all approved subcontractors performing services under the terms of this agreement will have executed written contracts with this agency, and all contracts will be maintained on file and produced upon request. All contracts must contain language identical to the provisions of this agreement as follows:

\_\_\_\_\_  
CONTRACTOR's Authorized Agent/Signature



\_\_\_\_\_  
5/9/14  
Date

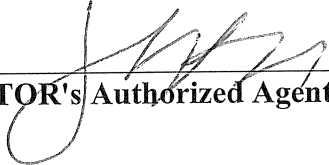
**James Petell, Ph.D.  
Associate Vice President  
Intellectual Property  
Management & Commercialization**

**Appendix XIII**  
**Contractor Certificate of Compliance**  
**Regarding Environmental Tobacco Smoke**

Public Law 103-227, Part C - Environmental Tobacco Smoke, Also Known As The Pro-Children Act of 1994 (**act**), requires that smoking not be permitted in any portion of any indoor facility owned or leased or contracted for by an entity and used routinely or regularly for the provision of health, day care, education or library services to children under the age of 18, if the services are funded by federal programs either directly or through state or local governments, by federal grant, contract, loan, or loan guarantee. The law does not apply to children's services provided in private residences, facilities funded solely by Medicare or Medicaid funds, and portions of facilities used for inpatient drug or alcohol treatment. Failure to comply with the provisions of the law may result in the imposition of a civil monetary penalty of up to \$1000 per day and/or the imposition of an administrative compliance order on the responsible entity.

Signature below certifies that **CONTRACTOR** will comply with the requirements of the **act**.

\_\_\_\_\_

**CONTRACTOR's**  **Authorized Agent/Signature** 5/9/14  
**Date**

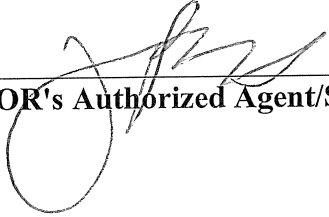
**James Petell, Ph.D.**  
**Associate Vice President**  
**Intellectual Property**  
**Management & Commercialization**

**Appendix XIV  
Contractor Certificate of Compliance  
Regarding Hotel and Motel Safety**

**CONTRACTOR** certifies that all requisitions for conference, meeting, convention, or training space funding in whole or in part with federal funds complies with the Hotel and Motel Fire Safety Act of 1990.

If a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the **DOT** may terminate this Agreement for cause of default.

\_\_\_\_\_  
**CONTRACTOR's Authorized Agent/Signature**



5/9/14  
\_\_\_\_\_  
**Date**


**James Petell, Ph.D.  
Associate Vice President  
Intellectual Property  
Management & Commercialization**

**Appendix XV**  
**Certification Regarding Debarment, Suspension, And Other Responsibility Matters -**  
**Primary Covered Transactions**

**CONTRACTOR** certifies to the best of its knowledge and belief, that it and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
- b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under public transaction; violation of federal or state antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
- c. Are not presently indicted or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any offenses enumerated in Item b of this certification; and
- d. Have not within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

Where the prospective primary participant is unable to certify to any of the statement in this certification, such prospective participant shall attach an explanation to this proposal.

  
\_\_\_\_\_  
**CONTRACTOR's Authorized Agent/Signature** 5/9/14  
**Date**

**James Petell, Ph.D.**  
**Associate Vice President**  
**Intellectual Property**  
**Management & Commercialization**

## **The Office of Professional Development and Training**

RIDOT has established an Office of Professional Development and Training comprised of three dedicated full-time professionals who will coordinate, develop, implement, and monitor RIDOT's staff development and training programs. The Office of Professional Development and Training is committed to help meet RIDOT's professional development needs and will continue to strive to offer learning opportunities and schedule training according to demand.

### **Mission:**

The mission of the Office of Professional Development and Training is to improve the level of preparedness and performance of the transportation industry through training and staff development. To achieve this mission, we will provide comprehensive professional development opportunities and training in several formats including classroom-based instruction, online learning, Web-based seminars and tutorials.

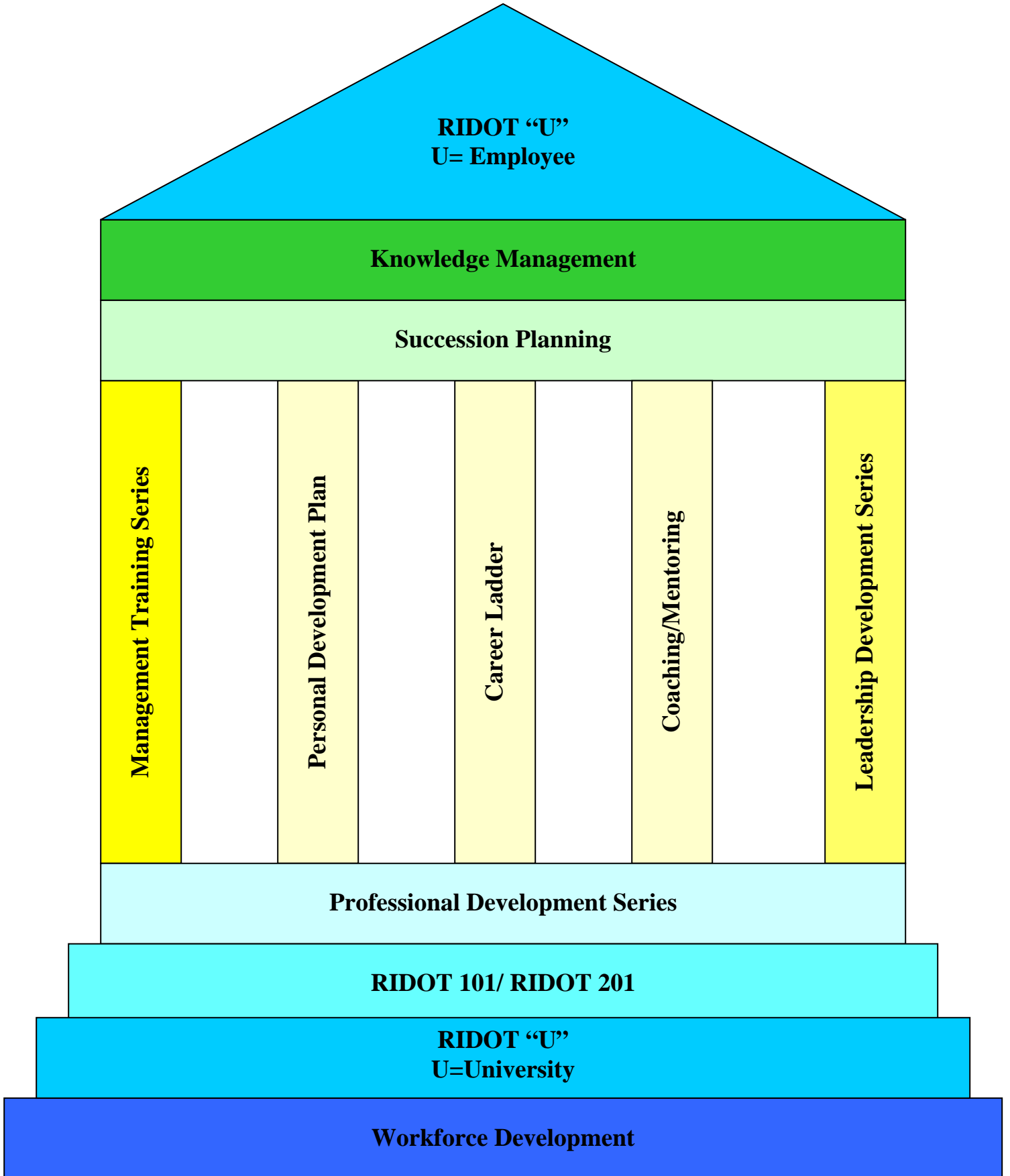
Our training mission is composed of the following goals:

- Training the current and future transportation workforce
  - Transferring knowledge quickly and effectively to and among transportation professionals
  - Providing training that addresses the full life cycle of the highway transportation system
  - Provide our employees learning and skill development opportunities to enhance their level of preparedness and performance
  - Create a professional development system that allows employees to grow within the department while obtaining knowledge and opportunities for career advancement
  - Building a leadership pipeline/talent pool to ensure leadership continuity
- Design a system where each employee goes through the process of creating an Personal Develop Plan

### **Opportunities to implement Environmental Compliance into training for all RIDOT:**

- RIDOT 101
- RIDOT 201
- Professional Development Series

**Office of Professional Development and Training  
Strategic Map**





**RIDOT “U” U= Employee:** You, the employee of RIDOT have opportunities to enhance your level of preparedness and performance through learning and skill development in order to set personal career goals to develop and grow within RIDOT.

**Knowledge Management:** is concerned with the entire process of discovery and creation of knowledge, dissemination of knowledge, and the utilization of knowledge. Focus is on improved performance, innovation, sharing of lessons learned, and continuous improvement or renewal of the knowledge base at RIDOT.

**Succession Planning:** is a process designed to ensure that RIDOT recruits and develops new and current employees to fill each key role within the organization. The goal is having “the right people in the right positions at the right time.” The focus of succession planning is on leadership and other positions critical to the mission of RIDOT at all levels.

**Management Training Series:** gain the core skills you need to succeed as a manager. Develop and refine effective management skills to manage people effectively. Seminar topics include motivation, team development and communication, interpersonal and time management skills.

**Personal Development Plan (PDP):** a system where each employee goes through the process of creating a PDP based on awareness, values, reflection, goal-setting and planning for personal development within the context of career, education and/or self-improvement.

**Career Ladder:** structured sequence of job classifications through which a person progresses for career advancement.

**Coaching/Mentoring:** a process that encourages career development by transferring knowledge from a coach or mentor to an employee help improve their job performance.

**Leadership Development Series:** is designed to train future and current leaders of RIDOT. Leaders develop skills to prepare themselves for the potential leadership challenges, sharpen their vision and inspire action for positive change.

**Professional Development Series:** offers learning opportunities specific to each division at RIDOT where individuals develop skills and attainment knowledge in defined areas.

**RIDOT 101:** is a set of introductory core classes/workshops that all RIDOT employees will take during their first 6 months of employment.

**RIDOT 201:** is a set of core classes/workshops that all RIDOT employees will take as a refresher and to gain deeper knowledge of the subject area.

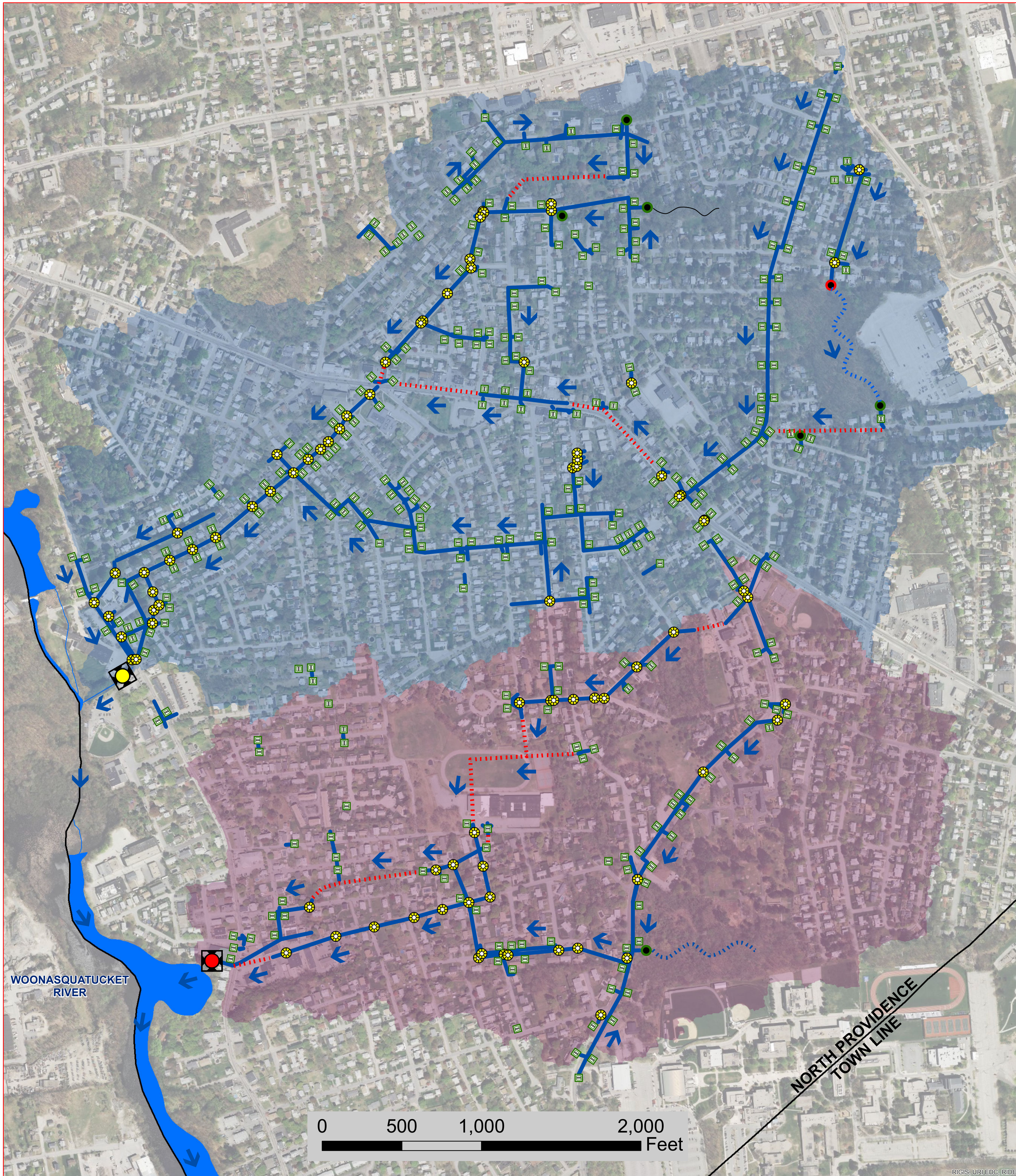
**RIDOT “U” U=University:** is the foundation of all the training and professional development at the RIDOT.

**Workforce Development:** describes a range of activities and programs at RIDOT that are designed to create, sustain and retain a viable workforce of tomorrow by providing exposure to transportation careers. (Examples include Engineering/Construction Career Days, Summer Transportation Institute, Teacher Externship Program and Women’s Construction Career Week)

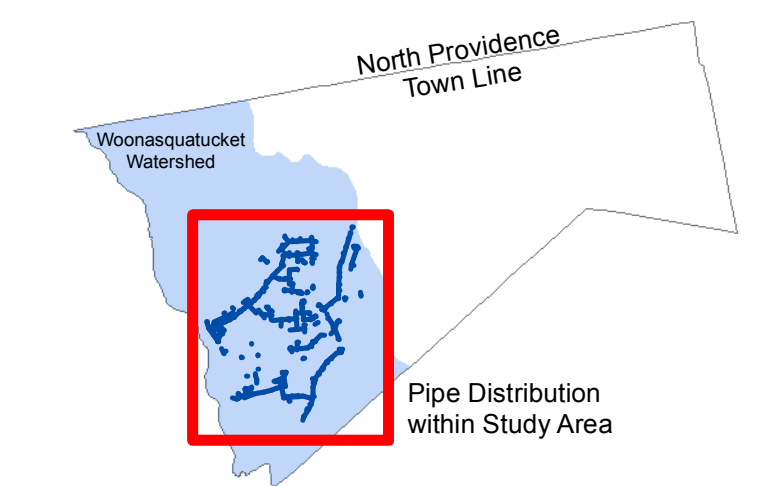
# Municipal Mapping Assistance Program - MMAP

## North Providence and RI Department of Environmental Management

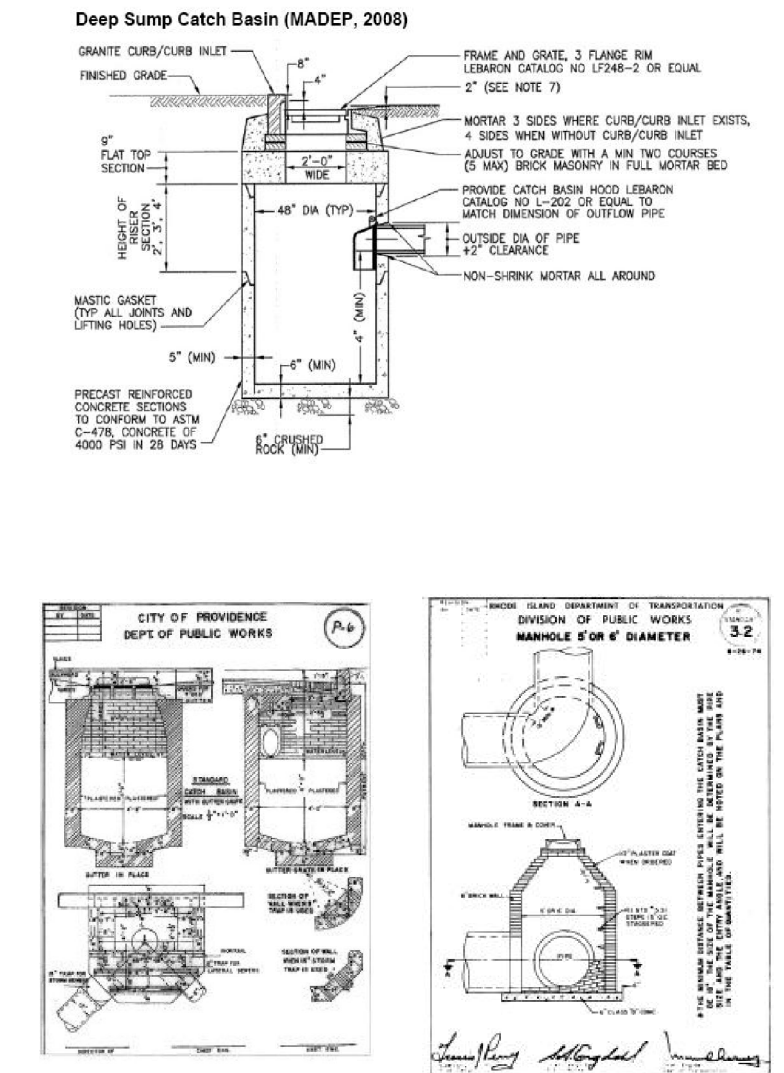
### Project Status Update Map



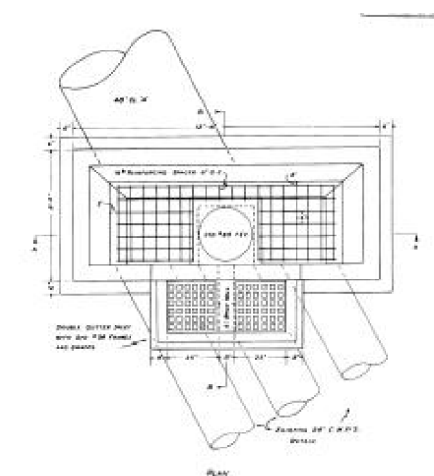
Woonasquacket Watershed within North Providence drains an area of 2.5 square miles



Catch Basin designs typical of drainage system in North Providence



Pipe connections on Woonasquacket Avenue leading to Priority Outfall



#### Map Legend

- PRIORITY OUTFALLS
- RIDOT OUTFALL
- CONNECTING PIPES
- CATCH BASINS
- MANHOLES
- Inlets Within System
- Outfalls Within System
- Priority Outfall Catchment
- Outfall WOOD371 Catchment
- Possible Pipe Connections
- Connecting Streams
- Direction of Flow

#### Priority Outfalls Catchment

369.1 Acres  
 49.9 % Impervious Surface  
 231 Catch Basins  
 50 Manholes  
 5.24 Miles of Connecting Pipe

#### Land Use:

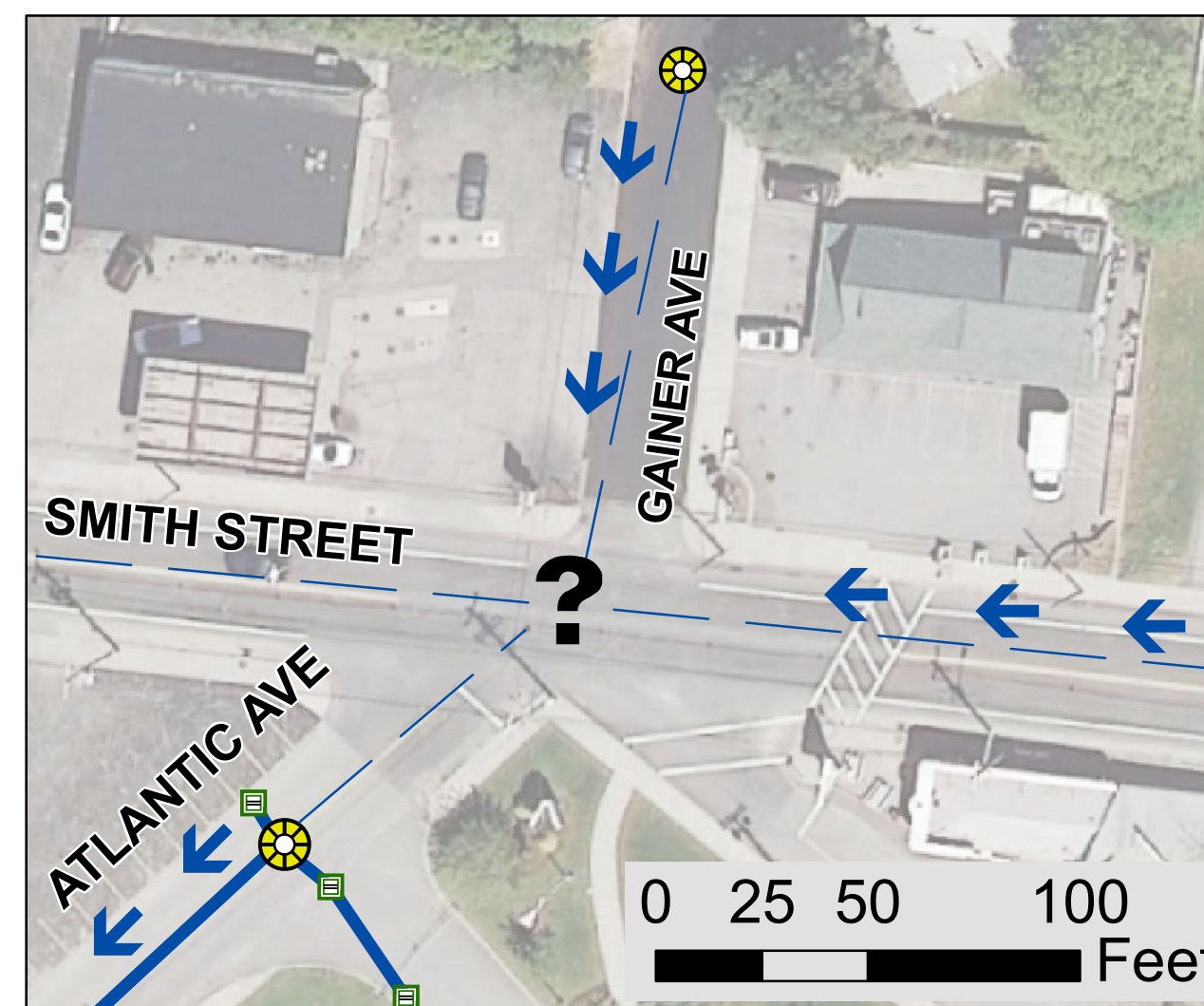
Residential (Medium to High Density)	84.5 %
Industrial	3.2 %
Commercial	6.4 %
Recreational	0.1 %
Forest/brush	5.8 %

#### RIDOT Outfall WOOD371 Catchment

238.4 Acres  
 45.4 % Impervious Surface  
 82 Catch Basins  
 34 Manholes  
 2.65 Miles of Connecting Pipe

#### Land Use:

Residential (Medium to High Density)	70.1 %
Industrial	11.1 %
Commercial	3.1 %
Recreational	8.4 %
Forest/brush	7.3 %



#### Smith Street and Atlantic Avenue

We have not yet been able to ascertain the connection between Gainer and Atlantic Avenues at Smith Street. Manholes at the intersection have not been accessed due to traffic volume of Smith St, a state road. Stormwater flows from the north and east down Smith Street and Gainer Avenue to this intersection, and flows away from the intersection down Atlantic Avenue to the southwest. However, without access to the connections between these systems, we cannot be sure if any stormwater also flows down Smith Street to the west. This is important because any flow continuing down Smith Street would discharge in the Woonasquacket River at a different outfall than the flow from Atlantic Avenue. We are working to complete the connections at this intersection by reviewing construction plans and "as-builts", taking photographs from pipe connections to which we have access, and observing destination of floatable markers.



Dumping stuff on the street...



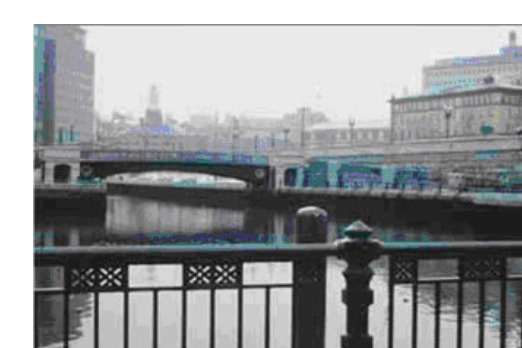
...leads to catch basins...



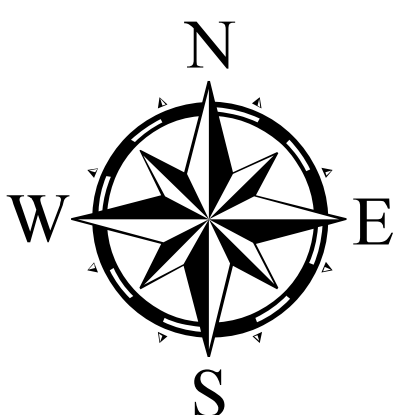
...where it enters the storm drains...



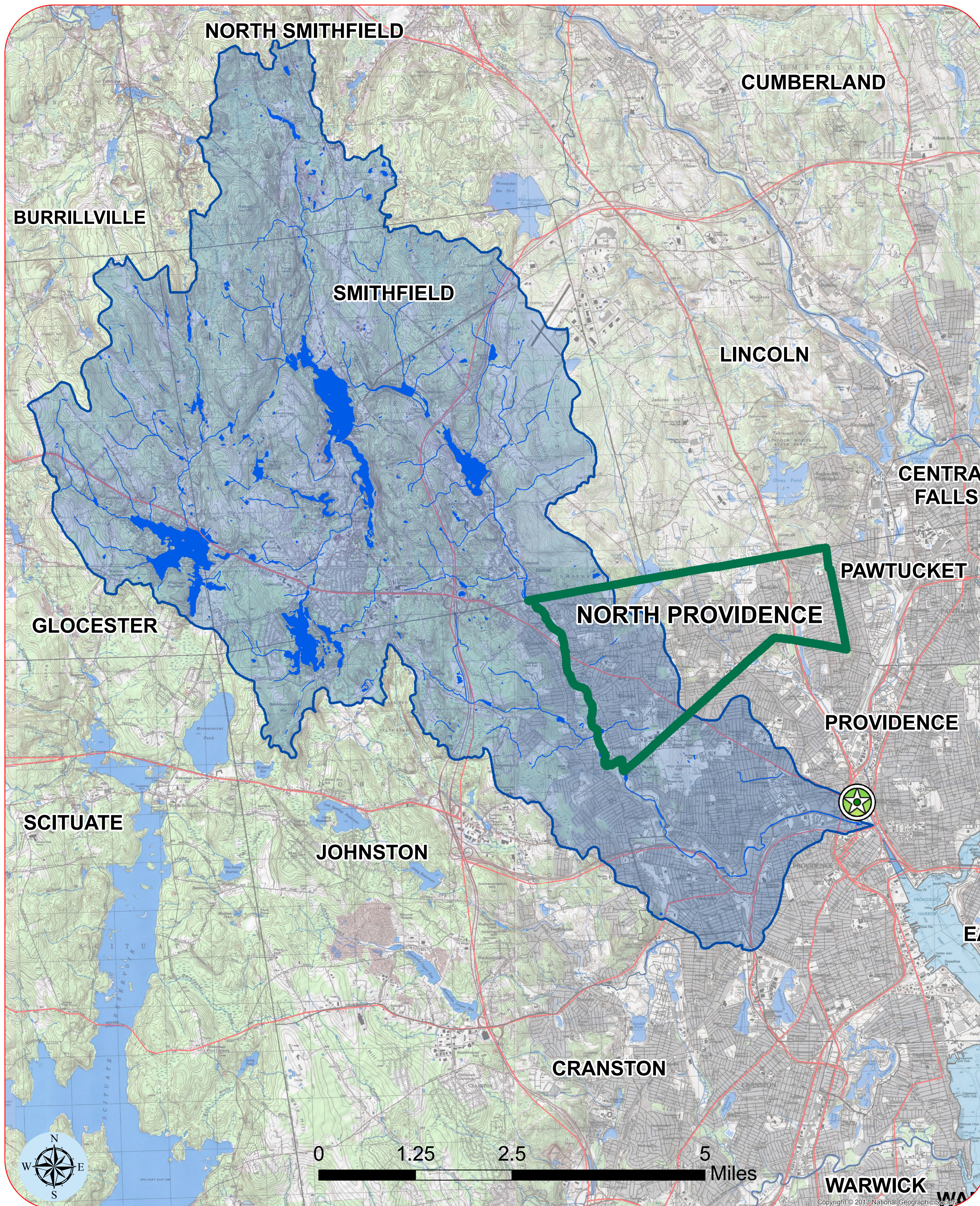
...and flows out the outfalls...



...and ends up in the river!



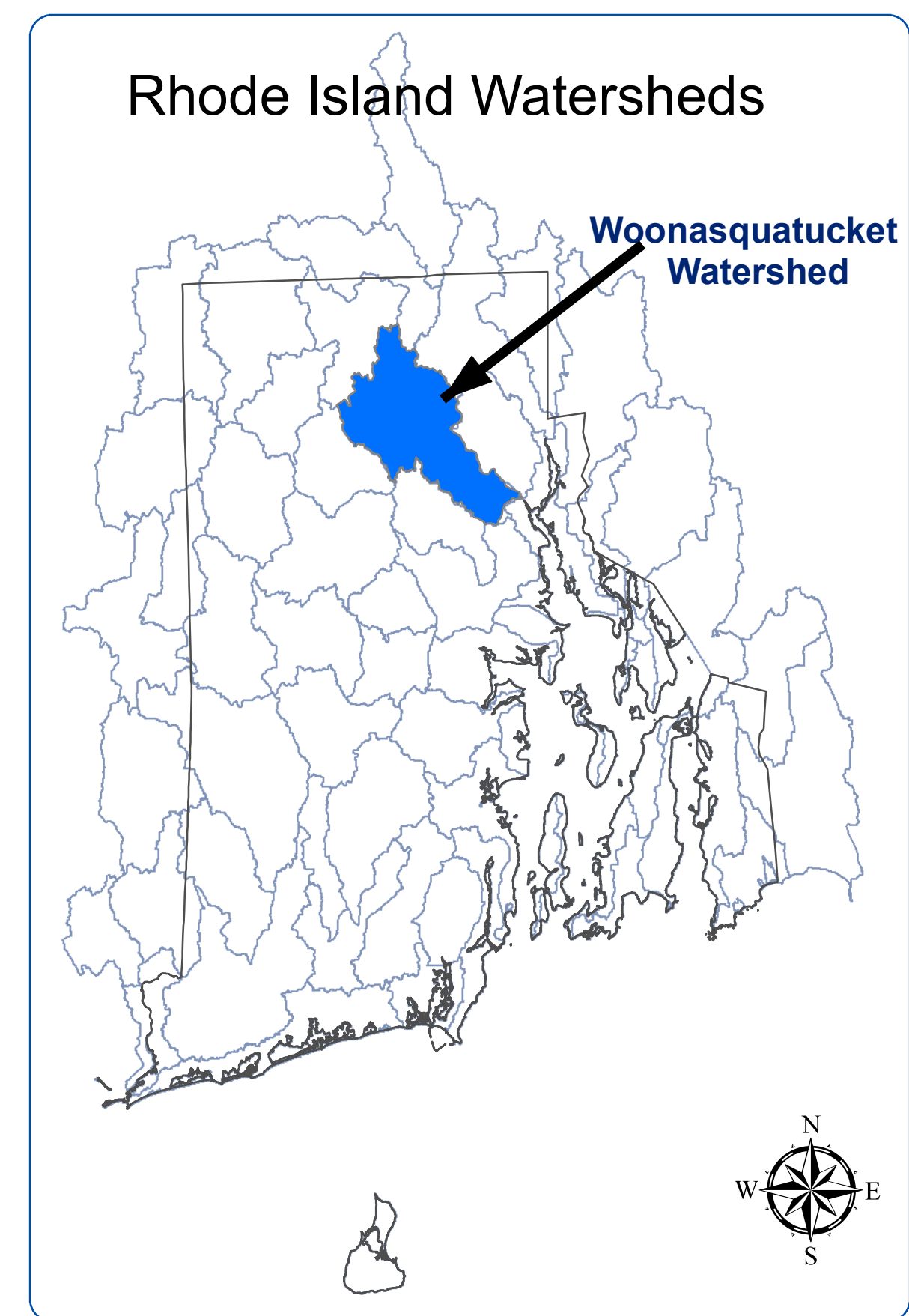
# Woonasquatucket Watershed



The Woonasquatucket Watershed covers 50 square miles in the towns of Glocester, Smithfield, North Smithfield, Johnston, North Providence and Providence. The 19 mile long Woonasquatucket River drains the watershed and joins the Moshassuck River in downtown Providence to become the Providence River, which then empties into Narragansett Bay.

Two and a half square miles of the watershed are within the town of North Providence. The watershed comprises 40% of the towns surface area and is made up of mostly high and medium density residential land use. Large commercial developments and industrial activities also exist along the Woonasquatucket River.

Given the location of the developed areas in North Providence there is significant potential for water quality impacts from stormwater runoff.



## Some of the Specific Requirements for North Providence to meet the TMDL for the Woonasquatucket River:

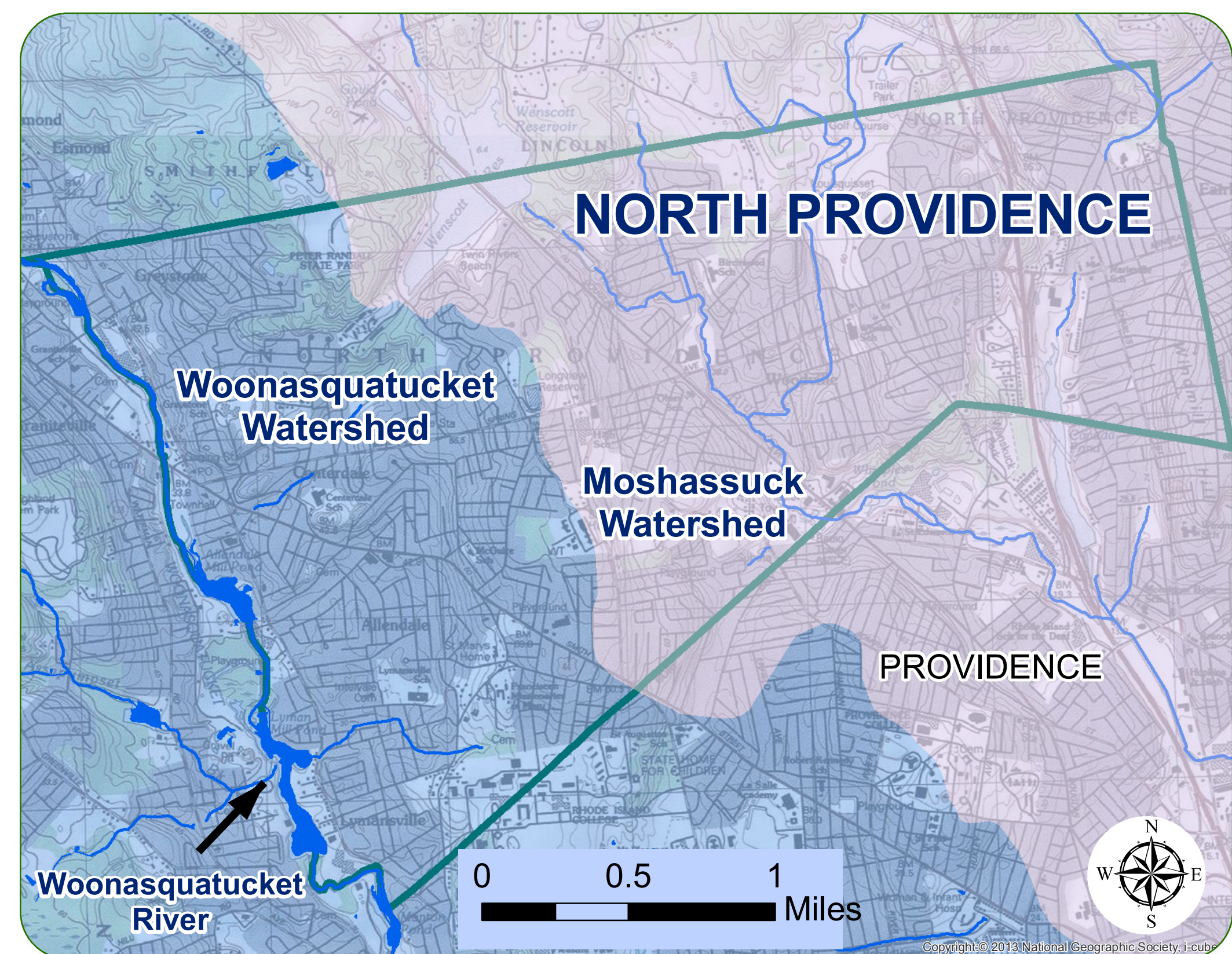
North Providence and RI DOT will be required to identify, map, and determine the ownership of and interconnections for all stormwater outfalls discharging directly to the river.

Priority areas for BMP implementation must include the Woonasquatucket Ave outfall, which was sampled by DEM in 2001-02 and exhibited elevated levels of dissolved metals and fecal coliform bacteria

As part of its Good Housekeeping/Pollution Prevention requirements, the Town must investigate the feasibility of street sweeping certain areas within the watershed more than the required once-annual schedule.

Educate the general public on the potential adverse impacts of stormwater and involve them in pollution prevention efforts.

Evaluate the feasibility of reducing the runoff volume and load of pollutants generated on private properties by investigating opportunities to treat and/or infiltrate runoff on-site



Woonasquatucket Ave outfalls which were sampled by DEM in 2001-02.

(Specific Requirements based on section 7.4 MS4-Specific Requirements from the 2007 Woonasquatucket River Fecal Coliform Bacteria and Dissolved Metals Total Maximum Daily Loads report by Rhode Island Department of Environmental Management)



2013 Municipal Mapping Assistance Program (MMAP)  
Town of North Providence and RI Department of Environmental Management

PROJECT UPDATE – AUGUST 23, 2013

The Municipal Mapping Assistance Program (MMAP) is continuing to map and catalogue the town's stormwater system. Some highlights from the past three weeks are:

- A Mid-Project Status Meeting was held on August 8<sup>th</sup>. Project partners were updated as to our progress to date. The meeting was well attended with representation from DEM, DOT, US EPA, and the Towns of North Providence and Jamestown.
- Narragansett Bay Commission (NBC) Camera Pole Demonstration – On August 21<sup>st</sup>, we were fortunate to have Mike Caruolo from the NBC give a field demonstration of how the camera pole works and the benefits it can offer to sewer and stormwater system inspections. Mike and the crew from NBC did an outstanding job, and with their help we were able to see inside previously inaccessible manholes to determine system connections. Representatives from DEM, DOT, US EPA, and the Towns of Smithfield and North Providence attended this demonstration.
- Meeting with the Mayor – On August 22<sup>nd</sup>, the MMAP team met with Mayor Charles Lombardi of North Providence, Chief of Staff Richard Fossa, Public Safety Director Frank Bursie, Communications Director Ralph Nahigian, and Stormwater Coordinator Lou Lanni. We provided an update of the MMAP project, discussed the town's response to the TMDL and a Stormwater Utility District, and the benefits of a town GIS system. The meeting was very productive and we look forward to helping the town move forward in these areas.
- So far, a total of 366 catch basins, 107 manholes, and over 9 miles of pipe have been mapped, measured, and photographed, and added to the geodatabase. With the exception of a few stubborn areas, we are done with the priority outfall catchment.



NBC's Mike Caruolo setting up the pole camera



Video Monitoring system for pole camera



View inside Smith Street manhole

Sincerely,  
John Shannon  
Jenna Turner  
Municipal Mapping Assistance Program Interns

GAMETIME

Rams find mix to snap Hawks' 27-game record

It's a pretty simple baseball formula.

Take good starting pitching, mix it with great relief pitching, sprinkle in some timely hitting along with solid defense and the result will usually be a victory at the ballpark.

Of course, it took two years for an opposing team to put it all together against Hendricken in a regular-season game.

La Salle finally did it on Tuesday, when the Rams ended Hendricken's 27-game, two-year regular-season undefeated string with a 6-2 victory over the Hawks at the Rams' Cronin Complex.

It was the combined pitching efforts of starter Ryan Quirk and reliever C.J. Dandeneau and the timely hitting of Doug Harrison and Brody Santilli that sparked the Rams' victory.

Quirk gave up only two runs on four hits in five innings of work; Dandeneau tossed two shutout innings, and Harrison and Santilli both delivered clutch, two-out hits that produced a total of five runs, three on Harrison's three-run inside-the-park homer and two on Santilli's two-run single.

Hendricken, the two-time state champion that won all 18 of its regular-season games last year, looked like it was on its way to another perfect regular-season campaign this year. The Hawks not only won their first nine games, but also outscored their opponents 101-19 in the nine games.

"Hendricken is an explosive offensive team. At any time, he can put up a big number," said La Salle coach Geoff Marcone. "When you play them, you not only have to get good pitching but you have to play good defense in the field. On Tuesday, we did both."

Marcone wasn't afraid to deviate from his usual game plan Tuesday when he saw the Rams were in a position to post a victory.

So when Hendricken cut a 4-0 deficit to 4-2 with two runs in the fifth inning, Marcone called on Dandeneau, the ace of his mound staff, for his first relief performance of the season.

Dandeneau, the 6-foot, UConn-bound senior right-hander, delivered in the clutch. He gave up only one hit, a Texas League double off the left-field line, and got three of the six outs he needed on strikeouts.

The three strikeouts on Tuesday upped Dandeneau's total to 44 Ks in 29 innings of work this season. He is now 4-1 on the season with a 1.69 ERA.

Hawks retain lead

Despite the loss, Hendricken still had a comfortable lead at the top of the 10-team Division I-North standings going into Thursday's afternoon's action. The Hawks, with their 9-1 record, were still three games ahead of Cumberland, Cranston West and La Salle.

North Kingstown, with a 10-1 slate, is the only other team in Division I with fewer than three losses. The Skippers went into Thursday action two games ahead, in the loss column, of second-place Moses Brown in the Division I-South standings.

Grillo impresses

Not surprisingly, one of the keys to North Kingstown's success has been the pitching of senior All-Stater Dom Grillo.

Grillo, the 6-foot senior lefthander who is headed to URI in the fall, is 3-0 so far this season. Grillo, who had a strong three-to-one strikeout-walk ratio last season en route to a 9-2 record, has been even more impressive with his control this season.



John Gillooly

So far he has struck out 33 while walking only three.

New alignment

Unfortunately for the state's high school baseball fans, Hendricken and North Kingstown will not meet during the regular season.

Under this season's new Division I alignment, which has two 10-team subdivisions, there is no cross-over subdivisional play during the regular season.

None undefeated

The La Salle victory over Hendricken on Tuesday had left Division II North Smithfield as the only undefeated team in the state.

But on Wednesday, Mount St. Charles dropped North Smithfield from the undefeated ranks with a 4-0 victory over the Northmen, so now there are no undefeated teams in the 48-team interscholastic League baseball ranks.

A tight Division II

The Mount St. Charles victory over North Smithfield has tightened the race for the top record in the 28-team Division II circuit.

After Wednesday's action, there were three teams with only one loss, East Providence, Ponaganset and North Smithfield, and two teams, Warwick Vets and Mount St. Charles, with only two losses.

Playoffs approaching

After this weekend's games, there are only two weeks remaining in the regular season.

As long as they received cooperation from Mother Nature with limited rainouts, Interscholastic League officials have allowed ample time for playoffs this season.

Right now, the final day of regular-season games in both Division I and II is scheduled for Saturday, May 24. The first games in the regional Division I and II playoffs are scheduled for May 28 and the best-of-three Division I and II state titles series are not scheduled until June 17-19 at McCoy Stadium.

Family ties

This year's Hendricken team has some very familiar family names in the history of Rhode Island high school sports.

Junior John Toppa is the grandson of the late, legendary Rogers High football coach John Toppa. Toppa, who played the outfield last season, is the Hawks' starting third baseman this season. He earned first-team All-State honors last year as a sophomore and is having another great year for the Hawks.

The Hawks' starting centerfielder this season is freshman Dante Baldelli, the younger brother of former Hendricken star and former major-league player Rocco Baldelli.

O'Hara shines

Former Wheeler star pitcher Finlay O'Hara made the most of his first collegiate star.

O'Hara, now a freshman at Hamilton College, tossed a complete-game, two-hit shut-out in his first college start last week, leading Hamilton to an 8-0 victory over SUNY Institute of Technology.

jjgillool@providencejournal.com (401) 277-7340

NOTICE OF SEIZURE AND FORFEITURE

The following cases have been seized for forfeiture under R.I.G.L. §21-28-4.01(A), the UNIFORM CONTROLLED SUBSTANCE ACT: F-202-14-0580

On January 2, 2014 at Division Street, East Greenwich, RI, the East Greenwich Police Department seized One Thousand Four Hundred Dollars in U.S. Currency and one 2005 Subaru Legacy VIN: 4S4BP86C154566873. The appraised value of the property is \$7,950.00. F-204-14-0581

On February 15, 2014 at Shell Gas station, 6 Providence Street, West Warwick, RI, the West Warwick Police Department seized One Thousand Thirty Six Dollars in U.S. Currency. The appraised value of the property is \$1,036.00. F-305-14-0573

On February 25, 2014 at 287 State Avenue, Tiverton, RI, the Tiverton Police Department seized Six Thousand Four Hundred Fifty Four Dollars in U.S. Currency and real property located at 287 State Avenue, Tiverton, RI. The appraised value of the property is \$314,254.00. F-401-14-0582

On February 4, 2014 at 15 Acorn Street, 2nd floor, Central Falls, RI, the Central Falls Police Department seized Three Hundred Ninety Dollars in U.S. Currency. The appraised value of the property is \$390.00. F-402-14-0583

On February 7, 2014 at Stop & Shop Lot, Atwood Avenue, Cranston, RI, the Cranston Police Department seized Four Hundred Dollars in U.S. Currency. The appraised value of the property is \$400.00. F-404-14-0584

On February 4, 2014 at Adams Avenue, East Providence, RI, the East Providence Police Department seized Five Hundred Sixty Five Dollars in U.S. Currency. The appraised value of the property is \$565.00. F-404-14-0585

On February 7, 2014 at Warren Avenue, East Providence, RI, the East Providence Police Department seized One 2007 Volkswagen Passat VIN: WVVTK73C87E001657 and one Breitling wrist watch. The appraised value of the property is \$9,790.00. F-404-13-0586

On December 29, 2013 at Interlocken Road, East Providence, RI, the East Providence Police Department seized Four Thousand Six Hundred Fifty Dollars in U.S. Currency. The appraised value of the property is \$4,650.00. F-407-14-0587

On February 14, 2014 at 1115 Charles Street, North Providence, RI, the North Providence Police Department seized Eight Thousand Six Hundred Ninety Seven Dollars in U.S. Currency. The appraised value of the property is \$8,697.00. F-409-14-0575

On February 26, 2014 at 167/169 Lenox Avenue, Providence, RI, the Providence Police Department seized Twenty Nine Thousand One Hundred Thirty Dollars in U.S. Currency, one 2003 Ford Escape VIN: 1FMYU03143KA33633 and one 2000 Jaguar STP VIN: SAJDA01C7YFL09255. The appraised value of the property is \$35,797.00. F-409-14-0579

On March 7, 2014 at 63 Ridgeway Avenue/Rankin Street, Providence, RI, the Providence Police Department seized Twenty Seven Thousand Six Hundred Sixty One Dollars in U.S. Currency and one 2006 Cadillac SRX VIN: 1GYYE637460209506. The appraised value of the property is \$34,778.00. F-409-14-0588

On January 6, 2014 at Potters Avenue, Providence, RI, the Providence Police Department seized Three Hundred

Two Dollars in U.S. Currency. The appraised value of the property is \$302.00. F-409-14-0589

On January 24, 2014 at 987 Chalkstone Avenue, 2nd floor, Providence, RI, the Providence Police Department seized One Thousand Eight Hundred Six Dollars in U.S. Currency. The appraised value of the property is \$1,806.00. F-409-14-0590

On January 21, 2014 at 50 Hamilton Street, 2nd floor, Providence, RI, the Providence Police Department seized Three Hundred Thirty Three Dollars in U.S. Currency. The appraised value of the property is \$333.00. F-409-14-0591

On January 24, 2014 at Providence PD, Providence, RI, the Providence Police Department seized Five Hundred Fifty Seven Dollars in U.S. Currency. The appraised value of the property is \$557.00. F-409-14-0592

On January 9, 2014 at Providence PD, Providence, RI, the Providence Police Department seized One Thousand Seven Hundred Twenty Nine Dollars in U.S. Currency. The appraised value of the property is \$1,729.00. F-409-14-0593

On February 4, 2014 at Mawney Street, Providence, RI, the Providence Police Department seized Four Thousand Thirty Five Dollars in U.S. Currency. The appraised value of the property is \$4,035.00. F-409-14-0595

On February 7, 2014 at Providence PD/526 Broad Street, Providence, RI, the Providence Police Department seized Four Thousand Three Hundred Ninety Two Dollars in U.S. Currency. The appraised value of the property is \$4,392.00. F-410-14-0574

On March 12, 2014 at 12 Mill Way, Scituate, RI, the Scituate Police Department seized Eight Hundred Nine Dollars in U.S. Currency, one 2001 Chevrolet Malibu VIN: 1G1NE52J016261016, one 2005 GMC Canyon SLE VIN: 1FTDT196458264532, one Apple iPhone w/ black outer box case, one Apple IPOD Touch w/ speakers, one T-Mobile Prism II Phone [Ser.# P7U2B913A2803141], one Motorola Barrage cell phone, one generic 50 kg hanging scale, (38) 1000 watt High Pressure sodium bulbs, (40) Quantum Series Lighting 1000 watt digital electronic ballasts, (5) International ComfortAir Handler units mod. # F5M4S4200A[ser.#: A122388379, A134385049, A130586992, A134385046, A134385043], (2) Federal Pacific 75KVA transformers (600 volt primary 208/120 secondary), [ser.#s: 223814-03, 223814-02, 223814-01], one CO2 Generator Autopilot Liquid propane unit [ser.# J0613A027D], (4) AUTOPILOT Environmental controllers [ser.#s: K0733871GD, K0733871YD, K0733872DD, K0733871FD], (5) Inline Circulation fans [ser.#s: 03013000214, 030130002064, 03130002232, 0513000528, 0513000556], one MLC-8X Master Lighting controller [ser.# AA1095769], one XBOX 360 w/ controller [ser.# 214817503305], (5) 3.5 Air Condition Condensers model # RA342GKA200 [ser.#s: X133470739, X133470774, 133865862, 133865837, 133865844], (50) XXXTREMEE Air Cooled Reflectors (10 new in box)/Custom Automated Products 1000 watts 600 volts), one Envirogro T5 Fluorescent light system (6 tubes), (2) Hydrofram T5 high output fluorescent light system (8 tubes), one small LED lighting system, (3) 6 gallon liquid fertilizer containers, (3) 2.6 gallon liquid fertilizer containers, (18) bottles assorted grow chemicals, one Lorex Digital security system, one GR01 Digital Weight scale, one Dewalt corded Sawzall w/ im-

tial "JNI" and [ser.# 082205], one 18v cordless drill w/ case both w/ initials "DF", one Sylvia flat screen TV [ser.# V29522036], one marijuana THC extractor w/ propane can, oneHydrofram Nanolus ballast [ser.# 3296125210384], one 32-ounce bottle of Age Old Grow Plant fertilizer. The appraised value of the property is \$58,790.05. F-411-14-0596

On February 14, 2014 at Twin River Mini Mart, 151 Douglas Pike, Smithfield, RI, the Smithfield Police Department seized Nine Thousand Five Hundred Twenty Nine Dollars and Fifty Seven Cents in U.S. Currency. The appraised value of the property is \$9,529.57. F-416-14-0597

On February 14, 2014 at 2402 Putnam Pike, Chepachet, RI, the Glocester Police Department seized Six Hundred Twenty Dollars in U.S. Currency, one Field/Stream Gun safe, one Yield Lab grow light and Enviro T5 lights. The appraised value of the property is \$1,997.31. F-416-14-0598

On February 27, 2014 at 160 Cherry Farm Road, Burrillville, RI, the Burrillville Police Department seized Seven Thousand Two Hundred Twenty Two Dollars in U.S. Currency. The appraised value of the property is \$7,222.00. F-800-13-0600

On December 11, 2013 at BOA, 1473 Broad Street/61 & 63 Glenham Street, Providence, RI, the RISP/HIDTA Police Department seized Eleven Thousand Forty Eight Dollars Fifty Two Cents in U.S. Currency and one 2003 Ford pickup VIN: 1FTRF17W73NB12002. The appraised value of the property is \$16,428.52. F-800-13-0601

On December 11, 2013 at Rte. 95 north, Pawtucket, RI, the RISP/HIDTA Police Department seized Six Thousand Five Hundred Dollars in U.S. Currency and one 2000 Ford Focus VIN: 1FAHP3430YW236960. The appraised value of the property is \$8,089.00. F-800-14-0599

On February 14, 2014 at 177 Legris Avenue, West Warwick, RI, the RISP Police Department seized Three Thousand Three Hundred Eighty Four Dollars in U.S. Currency and One Thousand Five Hundred Seventy Three Dollars in U.S. Currency. The appraised value of the property is \$4,957.00.

Persons who wish to contest the forfeiture of the seized property in Court must file a claim of ownership and a cost bond with the Attorney General in the amount of ten percent (10%) of the appraised value of the property or in the penal sum of \$250.00. Submit the bond by cashier's check payable to the State of Rhode Island Department of Attorney General, or present surety approved by the Attorney General.

Persons who want to request the remission or mitigation of the forfeiture must file a petition stating the facts and circumstances which justify remission or mitigation of the forfeiture and proof of an ownership interest in the property. Persons claiming an interest in the property as a result of this notice must file petitions for remission or mitigation of forfeiture or a claim and cost bond with the Attorney General by June 15, 2014. THE PROPERTY WILL BE FORFEITED TO THE STATE IF A PETITION FOR REMISSION OR MITIGATION OR A CLAIM AND COST BOND HAS NOT BEEN TIMELY FILED.

Submit all documents to the Department of Attorney General, Asset Forfeiture Unit, 150 South Main Street, Providence, Rhode Island 02903. Use the Seizure Number identified above on all correspondence.

STATE OF RHODE ISLAND Probate Court of the Town of Lincoln NOTICE OF MATTERS PENDING AND FOR HEARING IN SAID COURT The Court will be in session at Town Hall on the dates specified in notices below at 9:00 A.M. for hearing said matters

EANNARINO, Matthew Edward Matthew E. Eannarino has qualified as Executor. Creditors must file their claims in the office of the Probate Clerk within the time required by law beginning May 9, 2014.

LEE, David E. Kevin D. Lee has qualified as Executor. Creditors must file their claims in the office of the Probate Clerk within the time required by law beginning May 9, 2014.

TAJRA, Nancy Donna Ray has qualified as Executor. Creditors must file their claims in the office of the Probate Clerk within the time required by law beginning May 9, 2014.

PONTON Sr., John B. First and Final Accounting. Hearing May 19, 2014.

SEESE, Warren E. First and Final Accounting. Hearing May 19, 2014.

BERTENSHAW, Brian Petition for the Mortgage of Real Estate. Hearing May 19, 2014.

REGO, Susan Marie Change of Name. Hearing May 19, 2014.

Individuals requesting interpreter services for the hearing impaired must notify the Town Clerk at 333-8451, (72) hours prior to the hearing date. Karen D. Allen, CMC Probate Clerk

PUBLIC NOTICE CITY OF PROVIDENCE ZONING BOARD OF REVIEW

444 WESTMINSTER STREET (2ND FLOOR) PROVIDENCE, RHODE ISLAND 02903-3206 Notice is hereby given that the Zoning Board of Review will be in session in the First Floor Conference Room at the Mayor Joseph A. Doorley Municipal Building located at 444 Westminster Street, Providence, Rhode Island on Wednesday, May 28, 2014 at 5:30 P.M. and 7:00 P.M. when all persons interested will be heard for or against the granting of the following applications pursuant to Section 902 of the Zoning Ordinance:

5:30 P.M. I. NEW MATTERS: RHODE ISLAND SCHOOL OF DESIGN: 189 Canal Street (bounded by Throop Alley & Hammett Lane), also known as Lot 585 on the Tax Assessor's Plat 10, located in a Downcity D-1 Central Business Zone and within the Downcity Overlay District; filed an application seeking a Special Use Permit pursuant to Section 303-Use Code 21.1, in the proposed change in the use of the existing building from offices, to higher education institutional uses. The lot in question contains approximately 7,160 square feet of land area.

LORING HOLDEN: 35-37 Pitman Street, also known as Lot 118 on the Tax Assessor's Plat 14, located in a Residential R-3 Three-Family Zone; filed an application seeking a Dimensional Variance to increase the use of the existing building from a two-family, to a three-family dwelling. A three-family use is permitted in the R-3 District, only when located on a lot containing 6,000 square feet of land area (2,000 square feet of land area per dwelling unit). The lot in question contains approximately 5,000 square feet of land area; thereby, relief is sought from Section 304, minimum lot area per dwelling unit.

IMPERIAL INVESTMENTS, INC.: 255 Waterman Street, also known as Lot 268 on the Tax Assessor's Plat 15, located in a General Commercial C-2 Zone; filed an application pursuant to Section 200, requesting a Dimensional Variance to change the use of the existing building from a doctor's office and residence, to a four (4) family dwelling unit. A multi-family use is permitted in the C-2 District; the applicant seeks relief from Section 305, regulations requiring a minimum of 1,200 square feet of land area per dwelling. The lot in question contains approximately 4,760 square feet of land area; thereby, this proposal has a shortfall of 40 square feet of land area. Further, a Special Use Permit is sought for relief from Section 703.2 pursuant to Sections 707 and 707.1; whereby, the proposed use requires six (6) parking spaces, four (4) parking spaces would be provided.

CHRISTOPHER AOYAMA: 216 Killingly Street, also known as Lot 22 on the Tax Assessor's Plat 115, located in a Residential R-1 One-Family Zone; filed an application seeking a Use Variance to change the use of the existing building from a one-family, to a two-family dwelling. Relief is sought from Section 303-Use Code 12; said Section restricts the number of dwelling units to one unit only in an R-1 District. The lot in question contains approximately 4,423 square feet of land area.

SHOOTING STAR APARTMENTS, INC.: 24 Tecumseh Street, also known as Lot 193 on the Tax Assessor's Plat 5, located in a Residential R-3 Three-Family Zone; filed an application requesting a Dimensional Variance to construct a new shed dormer, 24 feet in length, on the north side of the roof of the existing three-family dwelling (which would not extend above the existing roof height nor would it extend beyond the alignment with the north wall of the structure) to increase the interior headroom of the third floor dwelling unit and provide for new windows. The applicant seeks relief from Sections 202.4 and 202.6, regulations governing the addition & enlargement and intensification of a building nonconforming by dimension; whereby, in an R-3 District, the minimum lot area per dwelling unit is 2,000 square feet of land area; the existing three-family dwelling sits on a 3,200 square foot lot; since the property is noncon-

forming by dimension (existing height, side yards and land area), construction improvements can be made by Board action only.

7:00 P.M. ALEXIOS GEORGE CARAYANNOPOULOS: One Rhode Island Avenue, also known as Lot 26 on the Tax Assessor's Plat 41, located in a Residential R-1 One-Family Zone; filed an application seeking a Use Variance to change the use of the existing building from a one-family, to a two-family dwelling. Relief is sought from Section 303-Use Code 12; said Section restricts the number of dwelling units to one unit only in an R-1 District. The lot in question contains approximately 5,455 square feet of land area.

MANNI REALTY, LLC, OWNER OF LOT 197 AND ADMIRAL SMITH REALTY, LLC, OWNER OF LOTS 198, 200 & 201: 685 Admiral Street (Lot 198, consisting of 8,184 square feet of land area), 697 Admiral Street (Lot 200, consisting of 3,100 square feet of land area), 782 River Avenue (Lot 197, consisting of 4,400 square feet of land area) and 85 Crandall Street (Lot 201, consisting of 3,600 square feet of land area) on the Tax Assessor's Plat 79, Lot 198 is located in a Limited Commercial C-1 Zone and Lots 197, 200 & 201 are located in a Residential R-2 Two-Family Zone; filed an application requesting Use and Dimensional Variances pursuant to Section 200, seeking to demolish the existing residential structures on Lots 197, 200 & 201 and constructing two (2) parking areas to support the existing bakery located on Lot 198. Lots 197 & 198 would be merged into a new parcel consisting of 9,194 square feet of land area that would support the bakery and a new accessory parking area requiring relief from Section 303-Use Code 57 (expansion of the commercial use into the residential zone). Further relief is sought from Sections 303-Use Code 64.1 and 701, permitted uses, to provide a separate accessory parking area on a proposed new parcel consisting of 10,223 square feet of land area at the corner of Admiral and Crandall Streets that would further support the existing bakery.

II. APPEAL Pursuant to Rhode Island General Laws, Sections 45-24-57(1)(i) and 45-24-64, and Section 902.1 of the Zoning Ordinance, the Zoning Board of Review will be sitting as an appellate board, the Board of Appeals, concerning the following Appeal: APPEAL FROM THE DECISION OF THE PROVIDENCE CITY PLAN COMMISSION APPELLANTS: David Mills, et al. PROPERTY OWNER: SWAP, Inc. SUBJECT PROPERTY: 66 Huber Avenue, also known as Lot 894 on the Tax Assessor's Plat 80. ZONING DISTRICT: Residential R-2 Two-Family Zone. The Appellants are appealing the Decision of the City Plan Commission dated March 6, 2014, related to Preliminary Plan Approval for Minor Land Development Project No. 12-027 MI.

THIS MEETING MAY BE CONTINUED FROM DAY TO DAY AND TIME TO TIME AT THE DISCRETION OF THE ZONING BOARD OF REVIEW. THIS MEETING IS ACCESSIBLE TO ALL PERSONS. INDIVIDUALS REQUESTING INTERPRETER SERVICES MUST NOTIFY THE OFFICE OF NEIGHBORHOOD SERVICES AT (401) 421-7768, 48 HOURS IN ADVANCE OF THE HEARING DATE.

ESTA REUNION PUEDE SER CONTINUADA EN CUALQUIER MOMENTO BAJO LA DISCRECION DE LA JUNTA DE REVISIONES DE ZONA.

LA INFORMACION DE ESTA REUNION ESTA DISPONIBLE PARA TODAS LAS PERSONAS E INDIVIDUOS QUE REQUIERAN SERVICIOS DE INTERPRETE, LLAME A LA OFICINA DE SERVICIOS VECINALES AL (401) 421-7768. POR LO MEMOS 48 HORAS ANTES DE SU FECHA DE JUICIO.

PETER D. CARNEVALE, SECRETARY (401) 680-5376 E-mail at pcarnevale@providenceri.com FREE PARKING AVAILABLE AT BUILDING ACCESSIBLE FROM GREENE STREET.

Attorney for the Holder of the Mortgage 150 California Street Newton, MA 02458 (617) 558-0500 201207-0636 - YEL

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NOTICE OF AVAILABILITY 2013 DRAFT ANNUAL REPORT OF THE RIDOT PHASE II STORM WATER MANAGEMENT PROGRAM PLAN

The Director of the Rhode Island Department of Transportation (DOT) hereby gives public notice that the Draft 2013 DOT Storm Water Management Program Plan Annual Report, prepared in accordance with the Rhode Island Pollutant Discharge Elimination System (RPDES) Program, is available for public inspection, review, and comment.

For further information and/or a copy of the document, please visit DOT's Storm Water website at: http://www.dot.state.ri.us/programs/stormwater or contact Peter A. Healey, P.E. at: RIDOT, Environmental Resources Unit, 2 Capitol Hill, RM 348, Providence, RI 02903 (401) 222-2023, Ext: 4039 peter.healey@dot.ri.gov

The documents may be reviewed at the Rhode Island Department of Transportation, Two Capitol Hill, Providence, Rhode Island from May 9, 2014 to June 9, 2014 between the hours of 8:00 AM and 4:00 PM Monday through Friday, by appointment only.

PUBLIC HEARING: A public hearing on the Annual Report or Revised Plan will be held if RIDOT receives such requests from twenty-five (25) people, a government agency or subdivision, or an association having not less than twenty-five (25) members. If a public hearing is to be held, a public notice will be published announcing the date, time, place of such hearing, and the deadline for submitting written comments.

PUBLIC COMMENT PERIOD: (May 9, 2014 to June 9, 2014)

All comments on the documents should be submitted in writing or via email postmarked no later than 4:00 PM on June 9, 2014. If, during the public comment period, significant new questions are raised concerning the document, DOT may require a new draft or may reopen the public comment period. A public notice will be issued for any of these actions.

FINAL DECISION AND APPEALS: Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final decision and forward a copy of the final documents to RIDEM and each person who has submitted written comments or requested notice.

INVITATION TO BID

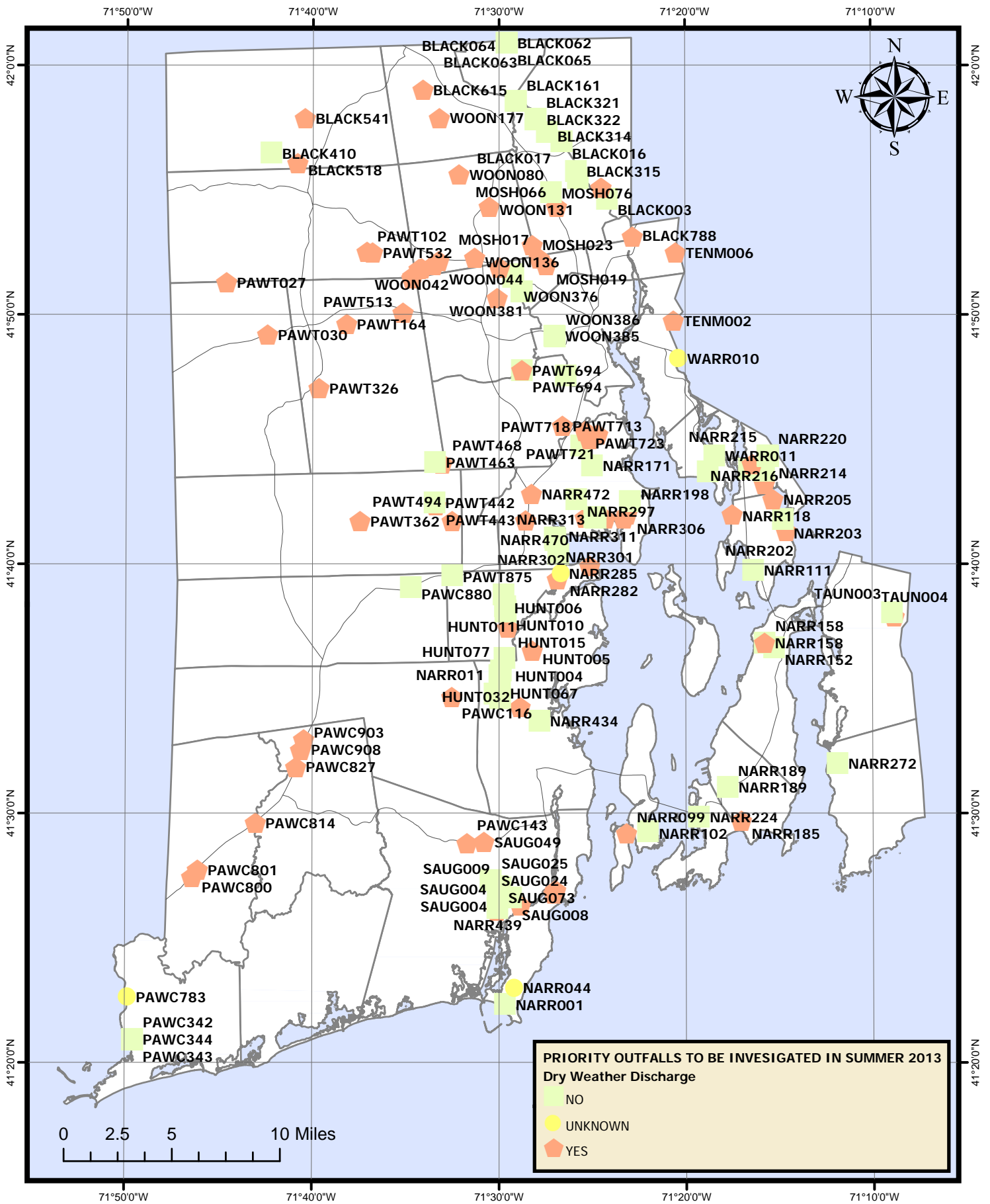
South Kingstown School Department is seeking bids for the following: Bid # 2323 High School Courtyard - Phase I There will be a Mandatory Pre-Bid Conference/Site Visit held on Wednesday, May 14, 2014 at 10:00 AM, at the Administration Building, 307 Curtis Corner Road, Wakefield, RI 02879. A Site Visit will immediately follow Pre-Bid Conference at South Kingstown High School, 215 Columbia Street, Wakefield, RI. Contractors are invited to submit sealed bids, in duplicate, plainly marked, "Sealed Bid - High School Courtyard - Phase I." Bids must include both SECTION 004113 - BID FORM and SECTION 004513 - CONTRACTOR'S QUALIFICATION STATEMENT.

Bids will be received at the Administration Building, Purchasing Manager Maria Parrillo, 307 Curtis Corner Road, Wakefield, RI 02879 until Thursday, May 29, 2014 at 10:00 AM, at which time they will be publicly opened.

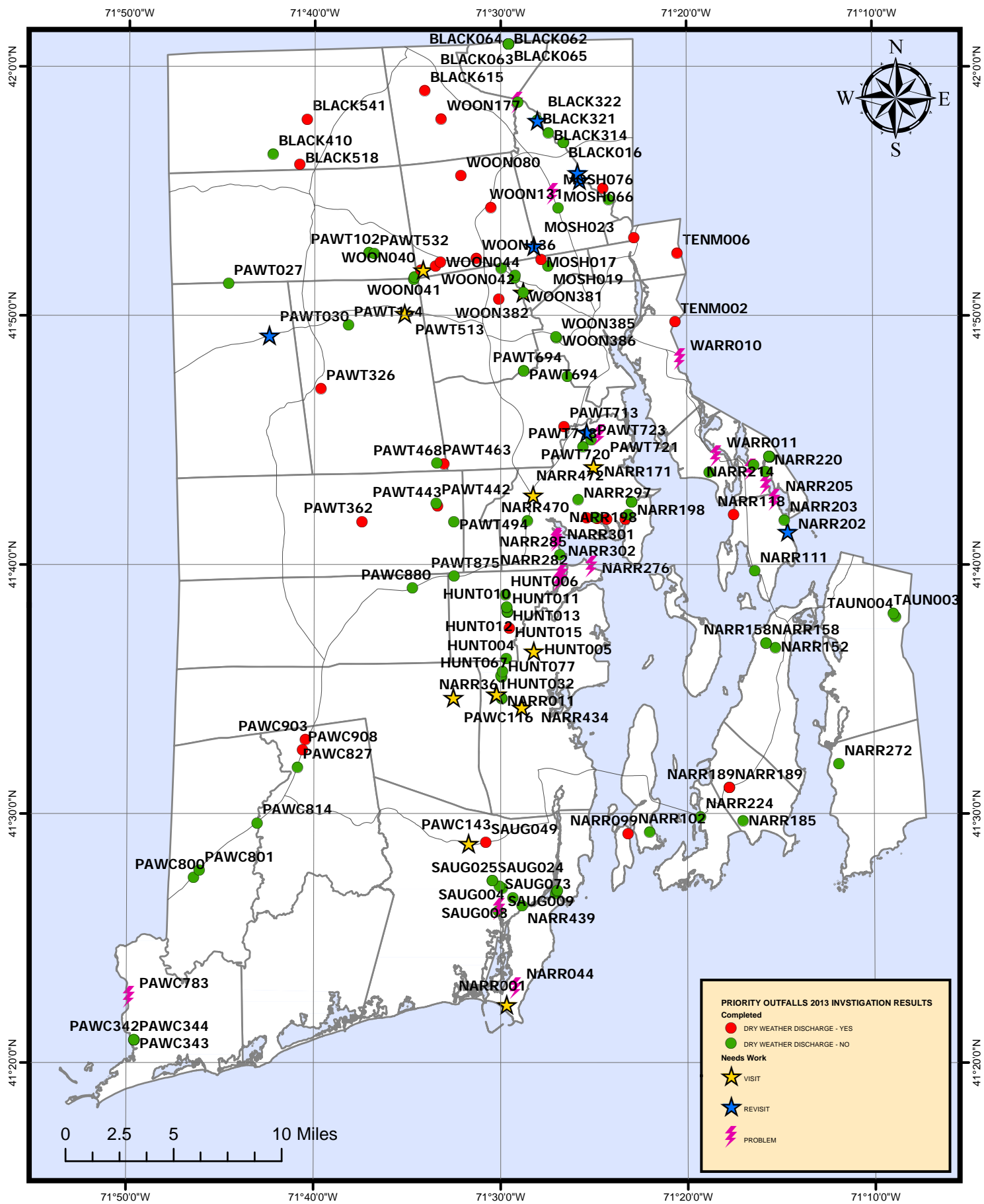
Bid Documents and Specifications may be obtained by visiting the South Kingstown School Department website http://fc.skschools.net/Purchaseing/ or by contacting Maria Parrillo, Purchasing Manager, 307 Curtis Corner Road, Wakefield, RI 02879, at (401) 360-1306.

The South Kingstown School Department reserves the right to reject any and all

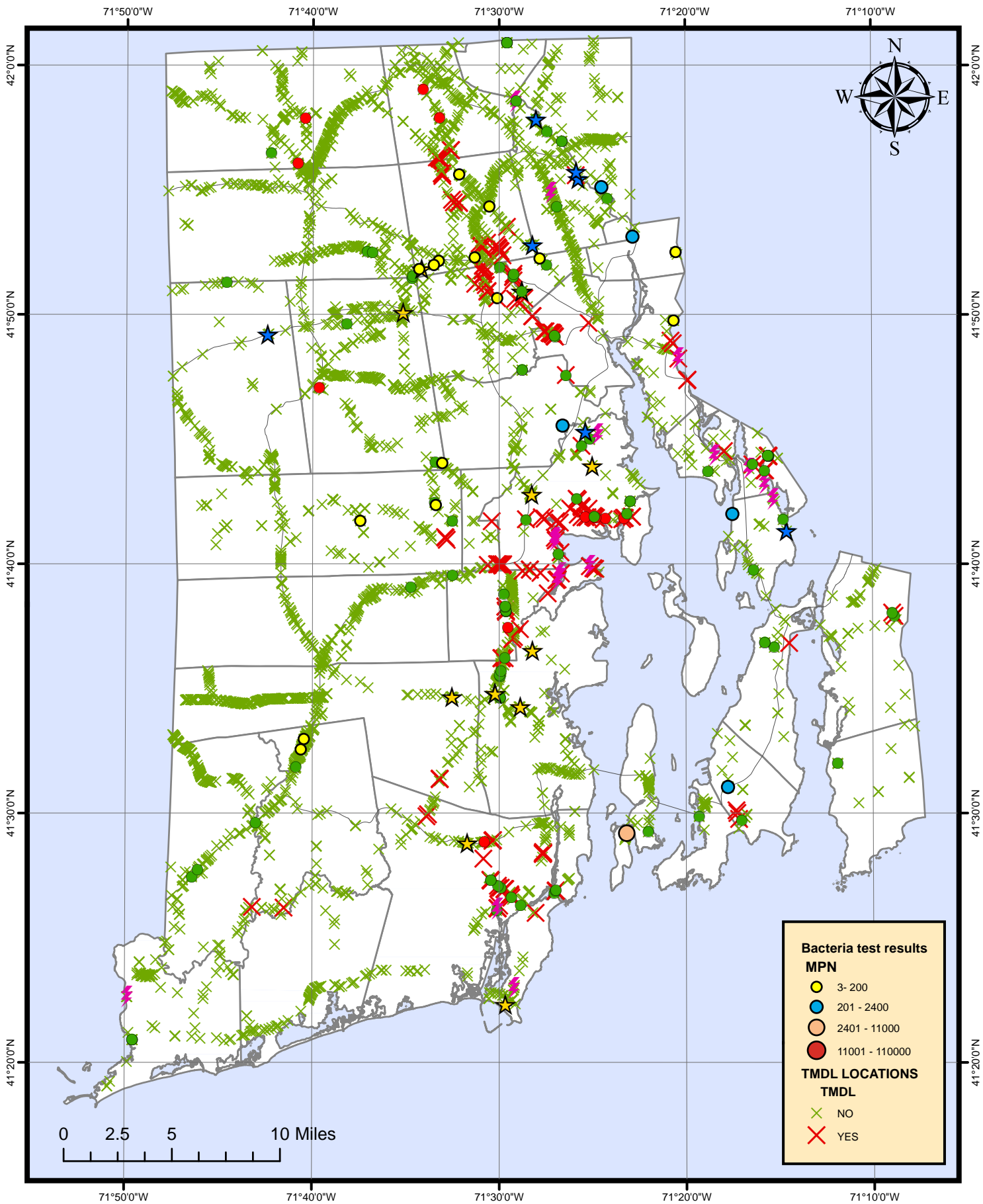
# Priority outfalls to be investigated in 2013



# Priority outfalls investigation results 2013



# Priority outfalls investigation results 2013



Designed: Aleksandra U.  
Date: 11/13/2013  
Source: DOT Database



Priority outfalls, Page 1

Outfall_ID	TMDL	IMPAIR	Watershed	2013Visit	2013_DWD	2013NOTES	STATE_ROAD	NAME
PAWC903			Wood River	08/20/13	YES	MPN 9	I 95 S	RICHMOND
SAUG049			Frontal Block Island Sound	06/26/13	YES		MOORESFIELD RD	SOUTH KINGSTOWN
NARR099			Narragansett Bay	06/24/13	YES	MPN 11000	BEAVERTAIL RD	JAMESTOWN
NARR189		YES	Narragansett Bay	06/24/13	YES	MPN 230	E MAIN RD	MIDDLETOWN
PAWC908		YES	Wood River	08/13/13	YES	MPN 4	I 95 S	RICHMOND
HUNT015			Narragansett Bay	06/26/13	YES		S COUNTY TRL	EAST GREENWICH
PAWT362			Pawtuxet River	08/13/13	YES	MPN<3	HILL FARM RD	COVENTRY
NARR318	YES	YES	Narragansett Bay	10/02/13	YES	MPN 4	WEST SHORE RD	WARWICK
NARR315			Narragansett Bay	10/02/13	YES	MPN 3	WEST SHORE RD	WARWICK
NARR313	YES	YES	Narragansett Bay	10/02/13	YES	MPN 460	WEST SHORE RD	WARWICK
NARR295	YES	YES	Narragansett Bay	10/02/13	YES	MPN 3	WEST SHORE RD	WARWICK
NARR118		YES	Narragansett Bay	07/03/13	YES	MPN 430	HOPE ST	BRISTOL
PAWT443			Pawtuxet River	08/07/13	YES	MPN 21	KNOTTY OAK RD	COVENTRY
PAWT468		YES	Pawtuxet River	10/16/13	YES	DOH	RT 115	SCITUATE
PAWT713		YES	Pawtuxet River	08/26/13	YES	MPN 1100	PONTIAC AVE	CRANSTON
PAWT326			Pawtuxet River	07/25/13	YES	GROUNDWATER	TUNK HILL RD	SCITUATE
TENM002		YES	Ten Mile River	08/26/13	YES	MPN 4	PLEASANT ST	EAST PROVIDENCE
WOON368	YES		Woonasquatucket River-Mo...	07/31/13	YES	MPN 43	ATWOOD AVE	JOHNSTON
WOON040			Woonasquatucket River-Mo...	07/16/13	YES	MPN 93	RT 116	SMITHFIELD
WOON042			Woonasquatucket River-Mo...	07/16/13	YES	MPN 93	RT 116	SMITHFIELD
WOON044			Woonasquatucket River-Mo...	07/16/13	YES	MPN 23	RT 116	SMITHFIELD
MOSH017		YES	Woonasquatucket River-Mo...	07/31/13	YES	MPN<3	DOUGLAS PIKE	NORTH PROVIDENCE
WOON136			Woonasquatucket River-Mo...	07/31/13	YES	MPN<3	PUTNAM PIKE	SMITHFIELD
TENM006		YES	Ten Mile River	08/26/13	YES	MPN 9	ARMISTICE BLVD	PAWTUCKET
BLACK788		YES	Lower Blackstone River	08/20/13	YES	MPN 240	CENTRAL AVE	PAWTUCKET
WOON131			Woonasquatucket River-Mo...	07/29/13	YES	MPN 9	DOUGLAS PIKE	SMITHFIELD
BLACK518			Lower Blackstone River	06/25/13	YES		S MAIN ST	BURRILLVILLE
BLACK012			Lower Blackstone River	08/20/13	YES	MPN 460	MENDON RD	CUMBERLAND
WOON080			Woonasquatucket River-Mo...	08/20/13	YES	MPN<3	DOUGLAS PIKE	SMITHFIELD
BLACK541			Lower Blackstone River	06/25/13	YES		RT 107	BURRILLVILLE
WOON177			Woonasquatucket River-Mo...	06/25/13	YES		RT 5	NORTHSMITHFIELD
BLACK615			Lower Blackstone River	06/25/13	YES		PROVIDENCE PIKE	NORTHSMITHFIELD
NARR202		YES	Narragansett Bay	08/29/13	REVISIT	FLOWING	RT 136	BRISTOL
PAWT723			Pawtuxet River	07/29/13	REVISIT		ELMWOOD AVE	WARWICK
PAWT030			Pawtuxet River	07/25/13	REVISIT	CONSTRUCTION	DANIELSON PIKE	FOSTER
MOSH023			Woonasquatucket River-Mo...	07/29/13	REVISIT	FLOWING - SAMPLE	TWIN RIVER RD	SMITHFIELD
BLACK316		YES	Lower Blackstone River	06/17/13	REVISIT		MENDON RD	CUMBERLAND
BLACK315		YES	Lower Blackstone River	06/17/13	REVISIT		MENDON RD	CUMBERLAND
BLACK322			Lower Blackstone River	06/25/13	REVISIT		NEW RIVER RD	LINCOLN
NARR044			Narragansett Bay	00/00/13	PROBLEM	MILITARY PROPE...	POINT JUDITH RD	NARRAGANSETT
SAUG004	YES	YES	Frontal Block Island Sound	07/01/13	PROBLEM	BRIDGE UNDER ...	MAIN ST	SOUTH KINGSTOWN
SAUG004	YES	YES	Frontal Block Island Sound	07/01/13	PROBLEM	BRIDGE UNDER ...	MAIN ST	SOUTH KINGSTOWN
NARR283	YES	YES	Narragansett Bay	07/24/13	PROBLEM	COULDNT FIND	MAIN ST	EAST GREENWICH
NARR209		YES	Narragansett Bay	07/23/13	PROBLEM	COULDNT FIND	RT 136	WARREN
NARR282	YES	YES	Narragansett Bay	07/24/13	PROBLEM	TIDAL SUBMERGED	MAIN ST	EAST GREENWICH
NARR276	YES	YES	Narragansett Bay	10/16/13	PROBLEM	SUBMERGED	IVES RD	WARWICK
NARR302	YES	YES	Narragansett Bay	07/24/13	PROBLEM	TIDAL OVERGROWN	POST RD	WARWICK
NARR301	YES	YES	Narragansett Bay	07/24/13	PROBLEM	TIDAL	POST RD	WARWICK
NARR205		YES	Narragansett Bay	07/23/13	PROBLEM	COULDNT FIND	RT 136	BRISTOL
WARR014			Palmer River	07/23/13	PROBLEM	TIDAL SUBMERGED	MARKET ST	WARREN
WARR011			Palmer River	07/23/13	PROBLEM	SUBMERGED	COUNTY RD	BARRINGTON
PAWT721			Pawtuxet River	08/26/13	PROBLEM	STAGNANT WATE...	POST RD	WARWICK

Priority outfalls, Page 2

Outfall_ID	TMDL	IMPAIR	Watershed	2013Visit	2013_DWD	2013NOTES	STATE_ROAD	NAME
WARR010	YES	YES	Palmer River	07/23/13	PROBLEM	SUBMERGED	HIGHLAND AVE	EAST PROVIDENCE
MOSH076			Woonasquatucket River-Mo...	08/20/13	PROBLEM	UNSAFE TO STOP	RT 146 N	LINCOLN
BLACK794			Lower Blackstone River	06/17/13	PROBLEM	COULDNT FIND	STATE HWY 99	LINCOLN
PAWC783		YES	Lower Pawcatuck River	06/06/13	PROBLEM	LOCATED UNDER...	BROAD ST	WESTERLY
PAWC343		YES	Lower Pawcatuck River	08/23/2013	NO		BEACH ST	WESTERLY
PAWC342		YES	Lower Pawcatuck River	08/28/2013	NO		BEACH ST	WESTERLY
PAWC344		YES	Lower Pawcatuck River	08/23/2013	NO		BEACH ST	WESTERLY
SAUG002		YES	Frontal Block Island Sound	07/01/13	NO		MAIN ST	SOUTH KINGSTOWN
NARR439			Narragansett Bay	07/31/13	NO		TOWER HILL RD	SOUTH KINGSTOWN
SAUG008	YES	YES	Frontal Block Island Sound	07/01/13	NO		KINGSTOWN RD	SOUTH KINGSTOWN
NARR057			Narragansett Bay	07/03/13	NO		BOSTON NECK RD	NARRAGANSETT
NARR058	YES	YES	Narragansett Bay	07/03/13	NO		BOSTON NECK RD	NARRAGANSETT
NARR059	YES	YES	Narragansett Bay	07/03/13	NO		BOSTON NECK RD	NARRAGANSETT
SAUG009	YES	YES	Frontal Block Island Sound	07/01/13	NO		KINGSTOWN RD	SOUTH KINGSTOWN
SAUG073	YES	YES	Frontal Block Island Sound	07/01/13	NO		KINGSTOWN RD	SOUTH KINGSTOWN
SAUG025	YES	YES	Frontal Block Island Sound	07/01/13	NO		KINGSTOWN RD	SOUTH KINGSTOWN
SAUG024	YES	YES	Frontal Block Island Sound	07/01/13	NO		KINGSTOWN RD	SOUTH KINGSTOWN
PAWC800		YES	Upper Pawcatuck River	08/20/13	NO		I 95 N	HOPKINTON
PAWC801			Upper Pawcatuck River	08/19/13	NO		I 95 N	HOPKINTON
NARR102			Narragansett Bay	08/20/13	NO		WALCOTT AVE	JAMESTOWN
PAWC814			Wood River	08/19/13	NO		I 95 N	HOPKINTON
NARR185			Narragansett Bay	06/24/13	NO		RT 138 A	MIDDLETOWN
NARR224			Narragansett Bay	08/06/13	NO		WASHINGTON ST	NEWPORT
NARR189		YES	Narragansett Bay	06/24/13	NO		E MAIN RD	MIDDLETOWN
PAWC827			Wood River	08/19/13	NO		I 95 N	RICHMOND
NARR272			Narragansett Bay	08/16/13	NO		WEST MAIN RD	LITTLE COMPTON
NARR360			Narragansett Bay	08/23/2013	NO		STATE HWY 4 N	NORTH KINGSTOWN
NARR361			Narragansett Bay	08/28/2013	NO		STATE HWY 4 N	NORTH KINGSTOWN
HUNT032			Narragansett Bay	07/12/13	NO		QUAKER LN	NORTH KINGSTOWN
HUNT067			Narragansett Bay	07/12/13	NO		STATE HWY 4 S	NORTH KINGSTOWN
HUNT077			Narragansett Bay	07/12/13	NO		STATE HWY 4 N	NORTH KINGSTOWN
HUNT004	YES	YES	Narragansett Bay	07/12/13	NO		QUAKER LN	EAST GREENWICH
NARR152			Narragansett Bay	08/29/13	NO		TURNPIKE AVE	PORTSMOUTH
NARR158			Narragansett Bay	06/24/13	NO		RT 114	PORTSMOUTH
NARR158			Narragansett Bay	06/24/13	NO		RT 114	PORTSMOUTH
TAUN004	YES	YES	Lower Taunton River	08/05/13	NO		STAFFORD RD	TIVERTON
TAUN003	YES	YES	Lower Taunton River	08/05/13	NO		OLD STAFFORD RD	TIVERTON
HUNT014	YES	YES	Narragansett Bay	07/12/13	NO		S COUNTY TRL	EAST GREENWICH
HUNT012	YES	YES	Narragansett Bay	07/12/13	NO		S COUNTY TRL	EAST GREENWICH
HUNT013	YES	YES	Narragansett Bay	07/12/13	NO		S COUNTY TRL	EAST GREENWICH
HUNT011	YES	YES	Narragansett Bay	07/12/13	NO	NEEDS MAINTEN...	S COUNTY TRL	EAST GREENWICH
HUNT010	YES	YES	Narragansett Bay	07/12/13	NO		S COUNTY TRL	EAST GREENWICH
HUNT006			Narragansett Bay	07/12/13	NO		S COUNTY TRL	EAST GREENWICH
PAWC880			Pawtuxet River	08/13/13	NO		I 95 S	WEST GREENWICH
NARR239			Narragansett Bay	07/23/13	NO		NAYATT RD	BARRINGTON
PAWT875			Narragansett Bay	08/13/13	NO		I 95 S	EAST GREENWICH
NARR111			Narragansett Bay	07/03/13	NO		RT 114	BRISTOL
NARR285			Narragansett Bay	10/16/13	NO		POST RD	WARWICK
PAWT494			Pawtuxet River	08/05/13	NO		RT 117	COVENTRY
NARR470			Narragansett Bay	07/31/13	NO		I 95 S	WARWICK
NARR203		YES	Narragansett Bay	08/29/13	NO	NEEDS MAINTEN...	METACOM AVE	BRISTOL
NARR311	YES	YES	Narragansett Bay	07/24/13	NO		WEST SHORE RD	WARWICK

Priority outfalls, Page 3

Outfall_ID	TMDL	IMPAIR	Watershed	2013Visit	2013_DWD	2013NOTES	STATE_ROAD	NAME
NARR306			Narragansett Bay	07/24/13	NO		WEST SHORE RD	WARWICK
PAWT442			Pawtuxet River	08/05/13	NO		KNOTTY OAK RD	COVENTRY
NARR198		YES	Narragansett Bay	07/24/13	NO		WEST SHORE DR	WARWICK
NARR198		YES	Narragansett Bay	07/24/13	NO		WEST SHORE DR	WARWICK
NARR297	YES	YES	Narragansett Bay	07/24/13	NO		WEST SHORE RD	WARWICK
NARR212	YES	YES	Narragansett Bay	07/23/13	NO		CHILD ST	WARREN
WARR015	YES	YES	Palmer River	07/23/13	NO		MARKET ST	WARREN
PAWT463		YES	Pawtuxet River	08/05/13	NO		RT 115	SCITUATE
NARR219	YES	YES	Narragansett Bay	07/23/13	NO		SCHOOL HOUSE RD	WARREN
NARR218	YES	YES	Narragansett Bay	07/23/13	NO		SCHOOL HOUSE RD	WARREN
NARR217	YES	YES	Narragansett Bay	07/23/13	NO		SCHOOL HOUSE RD	WARREN
NARR216	YES	YES	Narragansett Bay	07/23/13	NO		SCHOOL HOUSE RD	WARREN
NARR215	YES	YES	Narragansett Bay	07/23/13	NO		SCHOOL HOUSE RD	WARREN
NARR214	YES	YES	Narragansett Bay	07/23/13	NO		SCHOOL HOUSE RD	WARREN
NARR220	YES	YES	Narragansett Bay	07/23/13	NO		SCHOOL HOUSE RD	WARREN
PAWT718	YES	YES	Pawtuxet River	07/29/13	NO		POST RD	WARWICK
PAWT720			Pawtuxet River	07/29/13	NO		POST RD	WARWICK
WOON399	YES	YES	Pawtuxet River	08/14/13	NO		RT 10 N	CRANSTON
PAWT694		YES	Pawtuxet River	08/16/13	NO		PLAINFIELD PIKE	JOHNSTON
PAWT694		YES	Pawtuxet River	08/16/13	NO		PLAINFIELD PIKE	JOHNSTON
WOON386	YES	YES	Woonasquatucket River-Mo...	08/19/13	NO	ALL PIPES	RT 6 W	PROVIDENCE
WOON385	YES	YES	Woonasquatucket River-Mo...	08/19/13	NO	ALL PIPES	RT 6 W	PROVIDENCE
PAWT164			Pawtuxet River	07/25/13	NO		DANIELSON PIKE	SCITUATE
PAWT102			Pawtuxet River	07/25/13	NO		SNAKE HILL RD	GLOCESTER
WOON381			Woonasquatucket River-Mo...	08/20/13	NO		WOONASQUATUCKET...	NORTH PROVIDENCE
PAWT027			Pawtuxet River	07/25/13	NO		HARTFORD PIKE	FOSTER
PAWT521			Pawtuxet River	07/16/13	NO		W GREENVILLE RD	SCITUATE
WOON376	YES	YES	Woonasquatucket River-Mo...	07/29/13	NO		PUTNAM PIKE	JOHNSTON
PAWT142			Pawtuxet River	07/16/13	NO		W GREENVILLE RD	GLOCESTER
WOON341	YES	YES	Woonasquatucket River-Mo...	07/29/13	NO		RT 104	NORTH PROVIDENCE
WOON373			Woonasquatucket River-Mo...	07/29/13	NO		PUTNAM PIKE	JOHNSTON
MOSH019		YES	Woonasquatucket River-Mo...	07/29/13	NO		DOUGLAS PIKE	NORTH PROVIDENCE
PAWT532			Pawtuxet River	07/25/13	NO		SNAKE HILL RD	GLOCESTER
MOSH066			Woonasquatucket River-Mo...	08/20/13	NO		RT 146 N	LINCOLN
BLACK003		YES	Lower Blackstone River	08/20/13	NO		MENDON RD	CUMBERLAND
BLACK410			Lower Blackstone River	06/25/13	NO		RESEVOIR RD	BURRILLVILLE
BLACK017			Lower Blackstone River	07/12/13	NO	NEEDS MAINTEN...	ALBION RD	CUMBERLAND
BLACK016			Lower Blackstone River	07/12/13	NO		ALBION RD	CUMBERLAND
BLACK314		YES	Lower Blackstone River	08/19/13	NO		NEW RIVER RD	LINCOLN
BLACK161			Lower Blackstone River	08/19/13	NO		RT 126	LINCOLN
BLACK321			Lower Blackstone River	06/17/13	NO		NEW RIVER RD	LINCOLN
BLACK066		YES	Lower Blackstone River	06/17/13	NO		DIAMOND HILL RD	WOONSOCKET
BLACK064		YES	Lower Blackstone River	06/17/13	NO		DIAMOND HILL RD	WOONSOCKET
BLACK063		YES	Lower Blackstone River	06/17/13	NO		DIAMOND HILL RD	WOONSOCKET
BLACK065		YES	Lower Blackstone River	06/17/13	NO		DIAMOND HILL RD	WOONSOCKET
BLACK062		YES	Lower Blackstone River	06/17/13	NO		DIAMOND HILL RD	WOONSOCKET
NARR001			Narragansett Bay		NEEDS VISIT		SAND HILL COVE RD	NARRAGANSETT
NARR008			Narragansett Bay		NEEDS VISIT		RT 102	NORTH KINGSTOWN
PAWC143			Upper Pawcatuck River		NEEDS VISIT		RT 138	SOUTH KINGSTOWN
NARR014			Narragansett Bay		NEEDS VISIT		RT 102	NORTH KINGSTOWN
PAWC116			Upper Pawcatuck River		NEEDS VISIT		VICTORY HWY	EXETER
NARR011			Narragansett Bay		NEEDS VISIT		RT 102	NORTH KINGSTOWN

Priority outfalls, Page 4

Outfall_ID	TMDL	IMPAIR	Watershed	2013Visit	2013_DWD	2013NOTES	STATE_ROAD	NAME
HUNT005		YES	Narragansett Bay		NEEDS VISIT		DEVILS FOOT RD	NORTH KINGSTOWN
NARR472			Narragansett Bay		NEEDS VISIT		I 95 N	WARWICK
NARR171			Narragansett Bay		NEEDS VISIT		AIRPORT RD	WARWICK
PAWT513			Pawtuxet River		NEEDS VISIT		W GREENVILLE RD	SCITUATE
WOON382			Woonasquatucket River-Mo...		NEEDS VISIT		WOONASQUATUCKET...	NORTH PROVIDENCE
WOON382			Woonasquatucket River-Mo...		NEEDS VISIT		WOONASQUATUCKET...	NORTH PROVIDENCE
WOON041			Woonasquatucket River-Mo...		NEEDS VISIT		RT 116	SMITHFIELD
NARR434			Narragansett Bay	08/28/2013	INVESTIGATE	CULVERT?	TOWER HILL RD	NORTH KINGSTOWN

**RIDOT  
Physical Alteration Permits  
Issued in 2013**

Permit No	Permit Type	APP_Co Name	Eng_Co Name	Loc_Specific	Loc_Misc	Loc_Town	Permit_Purpose	Date_of Issuance	Permit Status	Latitude	Longitude	Drainage Tie_In	DOT Engineer	Design Action Date
130102	R		Civil Engineering Concepts, Inc.	Crandall Road	Plat 915 - Lot 118	Tiverton	Driveway	1/7/2013	Issued			No		
121002	C	Cadence Science, Inc.	DiPrete Engineering	2080 Plainfield Pike	AP36-2, Lots 15 & 118	Cranston	Expansion of same use	1/8/2013	Issued			No	Capaldi	
121011	C		Joe Casali Engineering, Inc.	2431 Pawtucket Ave.	Pole #185	East Providence	Revise driveway curb cut to street	1/11/2013	Issued			No	Gannon	
120926	C	Town of Little Compton	Civil Engineering Concepts	15 Meeting House Lane	#182	Little Compton	Improve existing site access	1/11/2013	Issued			No	Capabo	
130122	R	Oldport Homes, Inc.	Site Engineering, Inc.	72 Griswold Ave.	UP #14/6	Bristol	install previous driveway	1/24/2013	Issued			No		
121221	C	Harrisville Fire District	Stantec Consulting	Round Top Road - Rt. 96	Utility Pole #3	Burrillville	New access road	1/29/2013	Issued			No	DeRotto	
130125	R	Meehan Builders, Inc.		Steere Farm Road		Burrillville	Driveway Access	1/30/2013	Issued			No		
130130	R	Four Twenty Corporation	DiPrete Engineering	1444 Ocean Road	UP#37	Narragansett	Relocated driveway	2/5/2013	Issued			No		
130204	R		InSite Engineering	3-5 New Meadow Road	n/e corner of new meadow/county st	Barrington	new driveway installation	2/11/2013	Issued			No		
121126	C		Mount Hope Engineering, Inc.	845 Aquidneck Avenue	Map 114, Lot 132	Middletown	Connect retention basin to state drainage	2/11/2013	Issued	41.567000	-71.282250	Yes	Wilson	
130130-A	R			335 Old Greenwich Ave.	Pole 3/4	Warwick	Installation of driveway & Utilities	2/14/2013	Issued			No		
121009-A	C	Wake Robin Square, LLC	Bohler Engineering	3 Wake Robin Road		Lincoln	Drainage tie-in	2/19/2013	Issued	41.934577	-71.473998	Yes	Nevitt	
120815	C	City of Newport	AECOM/C.H. Nickerson	2154 West Main Road	East Bay Bike Path & Vets. Mem. Pkwy	Portsmouth	Resurface existing curb cut	2/19/2013	Issued			No	Marshall	
130221	R	Town of Warren		Rt. 136 & 114 - Metacom Ave/Market St.	Main St./Hope St.	Warren	Sign Amendment	2/25/2013	Issued			No		
121025	C	Exeter Scrap Metal	Pare Corporation	405 Nooseneck Hill Road		Exeter	Curb cut in Median	2/25/2013	Issued			No	Capaldi	
130225	R	Mai Tai Investments, Inc.	Scituate Surveys, Inc.	525-527 Washington Street	Rt. 117 - Poles 31 & 32	Coventry	Move Driveway Opening	2/26/2013	Issued			No		
110809	C	Ngig Holdings	Commonwealth Engineers & Consulting, Inc	609 Putnam Pike		Smithfield	Curb cuts, change of use of building	2/26/2013	Issued			No	Mariam	
120611	C	Cumberland Farms, Inc.	McMahon Associates	390 Metacom Avenue		Bristol	Sidewalk improvement	2/27/2013	Issued			No	Penn	
130108	C	DEM	Joe Casali Engineering, Inc.	Lincoln Woods	Near Rt. 146 Ped. Underpass	Lincoln	Soil Testing	3/1/2013	Issued			No	Wilson	
120919-A	C	Navigant Credit Union	Vanasse Hagen Brustlin, Inc.	925 Victory Highway	Utility Pole #11	North Smithfield	Revise curb cut/drainage tie-in	3/5/2013	Issued	40.005556	-71.587500	Yes	Serpa	
130227-A	R		Able Engineering, Inc.	West Main Road, Plat 1676	Pole 92	Little Compton	construct driveway for SF	3/8/2013	Issued			No		
130315-A	R		Level Designs	1011 Great Road	Pole 92	Lincoln	Driveway	3/18/2013	Issued			No		
121121	C	PLUM HILL PROPERTIES, LLC	DIPRETE ENGINEERING	TOWER HILL ROAD	STATIONS 340 TO 357	NORTH KINGSTOWN	PROPOSED ROAD 8 S. FAM	3/18/2013	Issued			No	Gannon	
121026	C	Lamar Advertising		Multiple locations	See Attached Sheets	Providence	21 tree trimming	3/18/2013	Issued			No	Votta	
130318	R	Knollwood Building Corp.		South Road	Pole #8	Exeter	Driveway	3/21/2013	Issued			No		
120217	C	Town of North Kingstown	Town of N. Kingstown	West side of Davisville Rd.	from Dyer Ave. to Davisville Free Library	North Kingstown	Construct a sidewalk & handicap ramp	3/28/2013	Issued			No	Alsabe	
130409	R	Homes for Our Troops	DiPrete Engineering	Sherman Farm Road	Ap 91 Lot 12	Burrillville	Driveway opening	4/15/2013	Issued			No		
121119	C	HK & S Construction Holding Corp.		554 Ten Rod Road		North Kingstown	Construction staging and storage	4/16/2013	Issued			No	Alsabe	
110816	C	DLS Family Ltd.	Frisella Engineering	Kingstown Road	State Highway Plat 543, Sta. 172+33.8	South Kingstown	Curb cut	4/25/2013	Issued			No	Gannon	
130424	R		Civil Engineering Concepts, Inc.	320 East Road	Pole #90	Tiverton	Relocate Driveway	4/26/2013	Issued			No		
130425	R	LC Property Group, LLC		0 Bulgmarsh Road	Plat 215, Lot 129	Tiverton	Driveway	4/29/2013	Issued			No		
130424-A	R			Post Road	Between Bank St. & Narragansett Pkwy.	Warwick	Curb cuts	4/30/2013	Issued			No		
130501	R	Mount Development Group LLC		Twin River Road	Between Poles 69 & 70	Lincoln	Driveway Access	5/2/2013	Issued			No		
120501	C	Alliance Energy, LLC	Ayoub Engineering, Inc.	3079 Tower Hill Road		South Kingstown	Rebuild of existing gas station	5/3/2013	Issued	41.183330	-71.450000	Yes	Gannon	
120426	C	NBX	Carrigan Engineering	922 Boston Neck Road	Pole 78	Narragansett	Proposed Curb Cut	5/6/2013	Issued			No	Ouellette	
121108	C	Adler Brothers Construction	Joe Casali Engineering, Inc.	84 Smith Ave.	U.P. #36	Smithfield	Curb opening - change in use	5/17/2013	Issued			No	Nevitt	
120328	C			118 Broad Street		Cumberland	driveway curb cut	5/29/2013	Issued			No	Alsabe	
130531	R	Matunuck Brook Farm Partners		534 Post Road	Between Pole 113 & Pole 114	South Kingstown	Access to property oil/trash restore driveway	6/3/2013	Issued			No		
130221-A	C		American Engineering, Inc.	130 Broad Street	Plat 2, Lot 227	Cumberland	Cumberland	6/4/2013	Issued			No	DeRotto	
130214	C	Cumberland Farms, Inc.	McMahon Associates	2643 Hartford Ave.		Johnston	Sidewalk improvements	6/4/2013	Issued			No	Capaldi	
120817	C	Rhode Island National Guard	Pare Corporation	705 & 645 New London Ave.	Intersection with Garden Hills Pkwy	Cranston	New security entrance	6/4/2013	Issued			No	Ouellette	
130315	C	Town of Burrillville	Joe Casali Engineering, Inc.	Intersection of Broncos Hwy.	Rt. 102, 107, Central St.	Burrillville	Installation of signs	6/5/2013	Issued			No	Nascimento	
130606-A	R	A.G. Construction, Inc.		Old River Road	Plat 23 - Lot 272	Lincoln	Driveway	6/10/2013	Issued			No		
121203	C	Town of Coventry	Fuss & O'Neill, Inc.	624 Washington Street - South Branch Pawtuxet River	Downstream (East) of the Laurel Ave. Bridge	Coventry	Reconstruction of Embankment walls and river bed	6/11/2013	Issued			No	Pavia	
130325-A	C	Shoreline Properties		305 Centerville Road	Rt. 117	Warwick	Water Main Extension	6/14/2013	Issued			No	Penn	
121108-A	C	FGX International, Inc.	RAB Professional Engineers, Inc.	490 George Washington Hwy.	Intersection of Rocky Hill Road/Business Park Drive	Smithfield	Roadway striping modification/traffic signal installation	6/19/2013	Issued			No	Pristawa	
130612	R			Sowams Road	Pole #69	Barrington	Driveway	6/21/2013	Issued			No		
130506	C		Resource Controls	Rt. 44 - 259 Putnam Pike	UP 66-67; 265' east of Esmond St.	Smithfield	Access to site from Rt. 44	6/28/2013	Issued			No	Mariam	
121115	C	Link Commercial Properties, LLC	Holmes Engineering, Inc.	613 George Washington Hwy.	A.P. 28, Lot 57	Lincoln	Abandon exiting curb cut with new one	6/28/2013	Issued			No	Nevitt	
130627-A	R		International Mapping & Survey Corp.	Wallum Lake Road (Pole 214)		Burrillville	install driveway	7/10/2013	Issued			No		
130627	R		International Mapping and Surveying Corp.	Wallum Lake Road (Pole 213)		Burrillville	install driveway	7/10/2013	Issued			No		
130412	C	Cleri Property Management	Joe Casali Engineering, Inc.	2320 Plainfield Pike	UP #460-50	Johnston	Curb Cut Opening	7/19/2013	Issued			No	Alsabe	
130227	C	Link Commercial Properties, LLC	Joshua Swerling at Bohler Engineering	1500 Bald Hill Road	Station 160 + 50 of the State Hwy.	Warwick	Direct drainage tie-in	7/19/2013	Issued	41.934577	-71.473997	Yes	Nevitt	

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Permit No	Permit Type	APP Co Name	Eng Co Name	Loc_Specific	Loc_Misc	Loc_Town	Permit Purpose	Date Of Issuance	Permit Status	Latitude	Longitude	Drainage Tie In	DOT Engineer	Design Action Date
130403	C	Tiverton Library Realty Inc.	Civil Engineering Concepts, Inc.	Rt. 177 Bulgarmarsh Road	at Roosevelt Ave.	Tiverton	Construct sidewalk	7/24/2013	Issued			No	Nevitt	
130611-B	C	WWB, LLC	DiPrete Engineering	691 Main Street	Plat 6 - Lot 6	Warren	Mod. of existing driveway	7/29/2013	Issued			No	Marshall	
130709	C	State of Rhode Island	Caputo and Wick Ltd	RI State House - 130 Smith St.	AP 4, Lot 231	Providence	Widen existing driveway	7/29/2013	Issued	41.831550	-71.413990	Yes	Capaldi	
130711	R			Chopmist Hill Road	Pole 132, Plat 28 - Lot 2	Scituate	To access new home	8/5/2013	Issued			No		
130314-A	C	National Grid		170 Allens Ave.		Providence	Curb cut openings	8/7/2013	Issued			No	Mariam	
130806	R			Great Road	Pole #885 and 1	Lincoln	New Driveway	8/7/2013	Issued			No		
130806-A	R		Arm Engineering	198 Post Road	NECO #88	Westerly	Driveway Access	8/21/2013	Issued			No		
130815	R	Westwood Construction, Inc.		Main Street	UP 172	Coventry	New curb cut	8/22/2013	Issued			No		
130212	C	Exxon Mobil Environmental Services		West Main Street		North Kingstown	installation of groundwater monitoring wells	8/26/2013	Issued			No	Alsabe	
130610	C	WP Warwick Associates, LLC	Bohler Engineering	1500 Bald Hill Road		Warwick	Vegetation Removal	8/28/2013	Issued			No	Votta	
130822-B	R	John David Builders, LLC		25' NE of Pole #79 East Side	Sowams Road	Barrington	Driveway entrance	8/29/2013	Issued			No		
130822-A	R		Marc N. Nyberg Associates, Inc.	Douglas Turnpike - Rt. 7	Pole #42	North Smithfield	Driveway	8/29/2013	Issued			No		
130627-C	C	Narragansett Bay Commission	BETA Group, Inc	Smithfield Ave, Nashua Street to North Main Street		Providence	traffic signal	9/6/2013	Issued			No	Bushell	
130710	C	1261 North Main LLC	1261 North Main LLC	1261 N. Main Street		Providence	New curb cut	9/12/2013	Issued			No	DeRotto	
130517	C	Bank Rhode Island	DiPrete Engineering	290 Main Street	UP#1145/27, 1144/26, 25/40/1143	South Kingstown	Close access to State ROW	9/12/2013	Issued			No	Gannon	
130715	C	RIDEM/Office of Air Resources	Crossman Engineering	R-O-W, I-95 North and Park St.	100 feet north of Hayes St.	Providence	Air Quality Monitoring Station	9/17/2013	Issued			No	Bushell	
130606	C	A.G. Construction		Old River Road	Plat 23 - Lot 275	Lincoln	Driveway	9/17/2013	Issued			No	Capaldi	
130917	R			560 Ocean Road		Narragansett	Proposed Driveway	9/18/2013	Issued			No		
130722	C	Three on Three Donuts, Inc.	Walker Engineering, LTD	49 Nooseneck Hill Road	Pole #1190	West Greenwich	Modified access & parking spaces	9/23/2013	Issued			No		
130403-A	C	Arkwright Advanced Coating, Inc.	Millstone Engineering, P.C.	North side of Main Street Rt. 115	Just east of Pole #58	Coventry	Install force main	9/26/2013	Issued			No	Danella	
130926	R			River Road	AP 11 - Lot 70, Pole #40	Lincoln	Install curb stop	9/27/2013	Issued			No		
130830	C	Town of Bristol	Caputo & Wick	249 Hope Street	Pole 146-50	Bristol	Driveway Replacement	9/30/2013	Issued			No	Nevitt	
130718	C	Environmental Compliance Service, Inc.	Environmental Compliance Services, Inc.	Rt. 1 & Rt. 138	3100 Tower Hill Road	South Kingstown	Monitoring Well Installations (2)	9/30/2013	Issued			No	Gannon	
130930	R			3346 Flat River Road	Pole #373	Coventry	Remove curbing	10/3/2013	Issued			No		
130805	C	Mineral Spring Avenue CVS, Inc.	Bohler Engineering	1919 Mineral Spring Ave.		North Providence	3 lane remote drive-thru	10/3/2013	Issued			No	Capaldi	
130415	C	Riley Kitchen & Bath Co, Inc.		Metacome Ave.		Bristol	Sidewalk, Street trees, sewer force main	10/3/2013	Issued			No	Capaldi	
131008-A	R			123 Watch Hill Road		Westerly	Install macadam barrier along frontage of property	10/21/2013	Issued			No		
131008	R			127 Watch Hill Road		Westerly	Driveway replacement	10/21/2013	Issued			No		
130822	C	City of Newport	City of Newport	Memorial Blvd. at Old Beach Road	Americas Cup Avenue @ Farewell Street	Newport	Install Welcome Signs	10/21/2013	Issued			No	Nascimento	
130515	C	Cumberland Farms, Inc.	McMahon Associates	295 Legris Ave.		West Warwick	Sidewalk and site access improvements	10/21/2013	Issued			No	Penn	
131022	R	Build Pros, LLC		1050 Waterman Ave.		East Providence	Proposed curb cut for driveway	10/23/2013	Issued			No		
130813	C	SAH Real Estate Inv.		561 West Greenville Road		Scituate	Expansion of existing animal hospital	10/23/2013	Issued			No	DeRotto	
131007	R			Wallum Lake Road	UP 922	Burrillville	Access property to main road	10/24/2013	Issued			No		
131002	R	J & R Contractors, Inc.		Plainfield Pike	Pole #36	Coventry	Install driveway	10/24/2013	Issued			No		
130924	C	Airport Valet Inc.	Walker Engineering LTD	2245 & 2267 Post Road	Poles #212-216	Warwick	Revise Parking Lot/Construct Airport Prg.	11/1/2013	Issued			No	Gannon	
130820	C	420 Mendon Road LLC	D'Amico Engineering Tech. Inc.	420 Mendon Road	Pole 453-84	Cumberland	Change of use	11/1/2013	Issued			No	Ouellette	
130814	C	The Washington Trust Company	The Robinson Green Beretta Corp	1383 Atwood Ave.	Pole #92 & 91	Johnston	Change of Use	11/5/2013	Issued			No	Wilson	
130909-A	C	Balise Subaru	Crossman Engineering	561 Quaker Lane	SW corner of Greenwich Way	West Warwick	Access for new dealership	11/13/2013	Issued			No	Mariam	
130912-A	C	Gregory Inman & Mark Tourgee	Walker Engineering, LTD	Nooseneck Hill Road & Woodthrush Dr.	Pole #88-1	Coventry	Office Bldg. w/associated amenities	11/15/2013	Issued			No	Capalbo	
130426	C		DiPrete Engineering	Douglas Pike Rt. 7	UP 31 - A.P. 42, Lots 27.28, & 36	Smithfield	Curb cuts	11/19/2013	Issued			No	Alsabe	
121108-B	C	Stop & Shop	Vanasse Hangen Brustlin, Inc.	275 Warwick Ave.		Cranston	Installation of traffic signal	11/20/2013	Issued			No	Coleman	
131119	R			Putnam Pike	Pole#384	Glocester	Curb cut	11/22/2013	Issued			No		
131126	R		Marc N. Nyberg Associates, Inc.	Douglas Turnpike (Rt. 7)	Pole #259	Burrillville	Curb Cut	12/3/2013	Issued			No		
130828	C	Brewed Awakenings Warwick, LLC	DiPrete Engineering	Rt. 2 - 1316 Bald Hill Road		Warwick	Remove island at entrance	12/3/2013	Issued			No	Mariam	
131203	R		Insite Engineering	Sowams Road north of Bullock Ave.	UP#67	Barrington	Construction of driveway	12/6/2013	Issued			No		
130912	C	Johnson & Wales University	Vanasse Hangen Brustlin, Inc.	35 Claverick Street		Providence	Sidewalk, tree installation, drainage connection to City system	12/9/2013	Issued			No	Zerva	
131202	R			200A High Street		South Kingstown	Curb cut - Driveway opening	12/13/2013	Issued			No		
120911	C	Killingly Express Wash LLC	Garofalo & Associates, Inc.	Killingly St. across from US Rt. 6 WB	off ramp & adjacent to US Rt. 6 WB on ramp	Johnston	Access to parcel	12/13/2013	Issued			No	Danella	
130821	C	Brady Sullivan Properties, LLC	Crossman Engineering	618 Main Street	Historic Harris Mill	Coventry	Convert Indust. Mill into Multi-unit Resid.	12/16/2013	Issued			No	Gannon	
130809	C	Worden Pond Builders Bonnet View	DiPrete Engineering	Boston Neck Road Rt. 1A	Algonquin Road	Narragansett	Alteration work	12/17/2013	Issued			No	Gannon	

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131021	C	Len-Mar Blossom Joint Venture Realty Trust	Allen & Major Associates, Inc.	Cross St. @ Dexter St.		Central Falls	Modification of existing curb cut	12/18/2013	Issued			No	Capaldi	
131213	R	TC Johnston, LLC	NTA, Inc.	2 Bayberry Road		Jamestown	Driveway	12/20/2013	Issued			No		
120809	C		DiPrete Engineering, Inc.	1450 Hartford Avenue		Johnston	multiple commercial uses		Issued	41.824194	-71.503083	Yes	Marshall	1/25/2013
130604	C		DiPrete Engineering Associates, Inc.	Service Road 7	between Broadway & Carpenter Street	Providence	Removal and Replacement of sidewalk		Issued	41.104722	-72.671111	Yes	Brooks	10/28/2013
130604	C		DiPrete Engineering Associates, Inc.	Service Road 7	between Broadway & Carpenter Street	Providence	Removal and Replacement of sidewalk		Issued	41.104167	-72.671111	Yes	Brooks	10/28/2013
120824	C			Entrance of Spartina Cove Way	Off Commodore Perry Hwy.	South Kingstown	Replace existing sign at entrance	n/a	Withdrawn				Capalbo	5/8/2013
120912	C	Stand Corp		Rt. 102 - Victory Hwy.	Between 704 & 716	West Greenwich	Install culvert crossing	n/a	Withdrawn				Capaldi	5/28/2013
130313	C	Colbea Enterprises, LLC	Joe Casali Engineering, Inc.	242 Cowesett Ave.	Rt. 3 - Pole #2	West Warwick	Change in use	n/a	Withdrawn				Alsabe	5/22/2013
130313-B	C	Warwick Mall, LLC	R.J. O'Connell & Associates, Inc.	Greenwich Ave. - Rt. 5		Warwick	Two curb cuts	n/a	Withdrawn				Marshall	10/31/2013
130405	C	Town of Narragansett	Town of Narragansett	Ocean Road	So. of Memorial Square Poles 5&6	Narragansett	Temporary Lane Closure	n/a	Withdrawn				Waugh	4/29/2013
120716	C	Town of Westerly		Intersection of Ocean View Hwy & Shore Rd.	Watch Hill Rd. near Avondale Rd.	Westerly	Two "Welcome To" Signs	n/a	Withdrawn				Magano	2/28/2013
130708	C	Town of North Kingstown	Public Works Department	southwest corner of Huling Road and Stony Lane		North Kingstown	sewer pumping station	n/a	Withdrawn				Capalbo	7/29/2013
130207	C	Town of Lincoln	Town of Lincoln	Jenckes Hill Road	Pole 51-1	Lincoln	Connect sanitary sewer to existing sewer	n/a	Denied				Ouellette	3/6/2013
130402	C		SITEC, Inc.	West Main Road	Lot 959 - Station 279+13	Portsmouth	Driveway Curb Cut	n/a	Denied				Marshall	2/13/2013
110316	C	Rhode Island Country Club, Inc.	Site Engineering	150 Nayatt Road		Barrington	drainage repair					No	Serpa	7/10/2013
130528	C		Veri/Waterman Associates, Inc.	934 Dexter Street		Central Falls	Reconstruct existing sidewalks		Approved			No	Serpa	8/30/2013
130627-B	C	Driscoll Development, LLC	DiPrete Engineering	1279 Wampanoag Avenue		East Providence	site access					No	Mariam	8/22/2013
100818-B	C	Chevron Land and Development Company	DiPrete Engineering Associates, Inc.	431 Veterans Memorial Parkway	Lyon Avenue/Bike Path	East Providence	access - PAP was approved in 2010, this is a revision		Under Review			Yes	Serpa	1/24/2013
130313-A	C	C&B Kettle Point, LLC	DiPrete Engineering	Veterans Memorial Pkwy	Pole #1	East Providence	Public roadway connection		Approved			No	Wilson	8/16/2013
111017-A	C			22 Greenville Ave.		Johnston	Install new curb cut		Approved			No	Brooks	3/12/2013
130325	C	Carpiionato Group, LLC	Cataldo Associates, Inc.	I-295 in vicinity of BJ's Pylon sign		Johnston	Tree clearing		Approved			No	Smith	4/5/2013
121024-A	C	Pinnacle Partners, LLC	DiPrete Engineering	Post Road UP 128		North Kingstown	New curb cut, sidewalk, and utilities		Approved	45.595033	-71.456092	Yes	Capalbo	5/23/2013
121024-A	C	Pinnacle Partners, LLC	DiPrete Engineering	Post Road UP 128		North Kingstown	New curb cut, sidewalk, and utilities		Approved	45.595583	-71.455928	Yes	Capalbo	5/23/2013
130205	C	Shanna Realty, LLC	D'Amico Engineering Technology, Inc.	86 Waterman Ave.	Poles #21 & 23	North Providence	New curb cuts		Approved			No	Capaldi	3/5/2013
130614	C	Jeff Anthony Properties, Inc.	D'Amico Engineering Tech. Inc.	2067 Mineral Spring Ave.	Pole VZ-1 on Locust Ave.	North Providence	Relocate curb cut		Approved			No	Delpeche	8/8/2013
130614-A	C		RAB Profession Engineers	Rt. 146A @ Park Avenue		North Smithfield	Site Driveway Construction		Approved			No	Capaldi	12/19/2013
130611	C	Harkins Development Company		East Main Road	Pole 761	Portsmouth	New Subdivision road		Approved	41.573056	-71.257500	Yes	Wilson	10/10/2013
120918	C	Rhode Island Recycled Metals	D'Amico Engineering Technology, Inc.	434 Allens Ave.	Pole #9053 to 9054	Providence	Enlarge and Modify existing curb cut		Approved			No	Mariam	1/14/2013
131001	C			Rt. 10 along Service Rd.		Providence	Plant trees		Approved			No	Votta	10/18/2013
130115	C	RI Airport Corporation - TF Green	Fuss & O'Neill, Inc.	North Central Airport	Lots 47 & 50, Plat 45	Smithfield	Clear runway visual zone & relocate fuel tanks		Approved			No	Ouellette	4/11/2013
120319-A	CR	Harkins Stafford Pond, LLC	Civil Engineering Concepts, Inc.	Bulgarmarsh Road , Route 177		Tiverton	Creating new road for subdivision, RIDOT drainage enters their system		Approved			No	Nevitt	12/16/2013
130909	C			288 Market Street		Warren	Change of Use		Approved			No	Wilson	11/5/2013
130306-A	C	Shoreline Properties	Joseph Casali Engineering, Inc.	Centerville Road	A.P. 250, Lot 3	Warwick	Change of Ownership		Approved	41.696458	-71.521403	Yes	Penn	4/23/2013

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PTS ID	RIC Number	Project Name	SWPPP	NTP Date	Contractual Finish Date	Projected/Actual Finish Date	Current Project Status	RE Name	Contractor
0145E	2011-CB-036	Conant St. RR Br. #915	Small	07/14/11	08/23/13	04/21/14	Active	Steve Drager	CARDI CORPORATION
0167D	2011-CB-041	Orms St. Br. #702	Small	08/01/11	08/16/13	08/19/13	Substantially Complete	Vahid Bijari	CARDI CORPORATION
0165W	2011-CH-108	Improvements to Route 138	Small	04/20/12	05/17/13	05/30/13	Substantially Complete	Steve Ricci, Jr	D'AMBRA CONSTRUCTION CO. INC.
0137B	2011-CL-002	Dean Street, Cahir Street and Stewart St	Small	02/29/12	11/30/14	11/28/14	Active	Steve Saracino	MON LANDSCAPING
0048M	2011-CL-057	I-95 Gateway Maintenance Contract 201	Small	02/29/12	11/30/13	11/30/13	Substantially Complete	Steve Saracino	MON LANDSCAPING
0154C	2012-CB-013	Randall Street Bridge No. 974	Small	06/26/12	06/01/14	06/06/14	Active	Vahe Sahakian	CARDI CORPORATION
0153B	2012-CB-017	Pocasset River Bridge No. 23	Small	05/08/12	05/23/14	05/07/14	Active	Bill Smith	CARDI CORPORATION
0201C	2012-CB-083	DBP C4 Anthony Road Bridge No 876	Small	01/09/13	05/17/13	05/17/13	Substantially Complete	Anthony DeRensis	BRITO'S LANDSCAPING SERVICES, LLC
0102F	2012-CH-003	Sakonnet Point Drainage Improvements	Small	12/20/12	05/23/13	05/21/13	Substantially Complete	Steve DeRiso	EAST COAST LANDSCAPING & CONSTRUCTION, INC.
0131J	2012-CH-005	1R - West Main Rd C-3	Small	10/24/12	08/30/13	08/29/13	Substantially Complete	Steve Ricci, Jr.	D'AMBRA CONSTRUCTION CO. INC.
0172X	2012-CH-007	Improvements to Fruit Hill Avenue Cont	Small	06/13/12	05/10/13	04/15/13	Substantially Complete	Anthony Cotoia	CARDI CORPORATION
0058L	2012-CL-097	I-95 Sustainability- Phase I	Small	05/22/13	11/30/16	11/30/16	Active	Steve Saracino	MON LANDSCAPING
0201D	2013-CB-024	DBP C5 Hopkins Mill Bridge No 96	Small	11/19/13	09/18/14	05/27/14	Active	Anthony Cotoia	MAS BUILDING & BRIDGE, INC.
0201F	2013-CB-025	DBP C7 Repairs to Jefferson Blvd South E	Small	02/28/13	11/08/13	06/11/14	Active	Robin Walsh	CARDI CORPORATION
0113P	2013-CB-047	Statewide Bridge Repairs Contract 1	Small	10/21/13	11/25/15	11/24/15	Active	Yasser Alani	CARDI CORPORATION
0163K	2013-CB-063	Morgan Ave. Bridge No. 109901	Small	07/02/13	08/29/14	08/29/14	Active	Anthony DeRensis	NEW ENGLAND BUILDING & BRIDGE CO., INC
0130H	2013-CH-021	Post Road (1R) Warwick	Small	04/30/13	11/22/13	11/19/13	Substantially Complete	Thompson Akanji	CARDI CORPORATION
0102M	2013-CH-069	Providence Roadway and Traffic Signal I	Small	07/30/13	05/30/14	06/11/14	Active	Dan Socree	NARRAGANSETT IMPROVEMENT CO.
0079E	2013-CH-095	RIPTA Park-N Ride Facility Boyd's Lane	Small	08/28/13	10/30/13	01/17/14	Substantially Complete	Stephen DeRiso	HARTFORD SITE CONSTRUCTION LLC
0139E	2013-CH-104	Kingston Station (North) Overflow Parkin	Small	09/25/13	05/14/14	06/24/14	Active	Justin McCoy	HK & S CONSTRUCTION
0102C	2013-CT-060	Contract 3 - State Traffic Commission	Small	08/29/13	08/28/14	06/22/15	Active	William Laurie	CARDI CORPORATION
0102A	2013-CT-093	Contract 2 South - State Traffic Commis	Small	10/18/13	08/08/14	08/01/14	Active	Richard Pisaturo	CARDI CORPORATION
0102P	2013-CT-094	Contract 2 North/Central - State Traffic	Small	11/20/13	08/22/14	08/22/14	Active	Terry McIlmail	CARDI CORPORATION
0031K	2008-CB-056	Replacement of Sakonnet River Bridge #	Large	05/06/09	05/15/13	02/26/14	Substantially Complete	Mike Studley	CARDI CORPORATION
0143G	2010-CB-004	Pawtucket Bridge No. 550 & Garden St.	Large	10/19/10	08/04/13	09/20/13	Substantially Complete	John Lonardo	S&R - PIHL, A JOINT VENTURE
0087D	2011-CB-011	I-295 Safety & Bridge C-3B, Bridge 750	Large	09/14/11	11/16/13	07/28/14	Active	John Pezzullo	CARDI CORPORATION
0143E	2011-CB-096	Natick Bridge No. 383	Large	04/25/12	05/30/14	04/30/14	Active	Paul DeCioppio	MANAFORT BROS, INC.
0026N	2011-CH-027	Coventry Greenway Bikepath - West (W)	Large	07/26/12	09/27/13	04/28/14	Active	Don Murphy	CARDI CORPORATION
0094E	2011-CH-045	Northwest Bike Trail / Woonasquatucke	Large	12/11/12	09/06/13	11/21/13	Substantially Complete	Mike Hull	LUCENA BROS.
0106B	2011-CH-084	Ten Mile River - Segment 7A	Large	06/05/12	05/17/13	09/20/13	Substantially Complete	Robert Lindo	WILLIAM ANTHONY EXCAVATING
0071M	2011-CT-109	Division Street Access Improvements EA	Large	07/16/13	09/19/14	09/29/14	Active	Paul DeGiovanni	D'AMBRA CONSTRUCTION CO. INC.
0153C	2012-CB-001	Replacement of Central Bridge No. 0182	Large	08/29/13	05/18/17	04/19/17	Active	Michael Swift	CARDI CORPORATION
0168D	2012-CB-030	Ten Rod Road Bridge No. 591	Large	10/17/12	08/29/14	06/22/15	Active	Rex Sullivan	AETNA BRIDGE CO.
0009K	2012-CB-046	Washington #200 - Pedestrian Bridge &	Large	06/15/12	06/13/14	01/05/15	Active	Robert Ferrara	CARDI CORPORATION
0018A	2012-CB-078	New Providence Viaduct Southbound Br	Large	01/24/13	11/20/15	10/04/16	Active	Mike Studley	MANAFORT BROS, INC.
0131D	2012-CH-006	1R Elm St., Beach St., Railroad Ave., Wes	Large	10/23/12	11/01/13	04/21/14	Active	Leo Boisclair	CARDI CORPORATION
0094C	2012-CH-010	Northwest Bike Trail / Woonasquatucke	Large	06/20/12	09/06/13	10/01/13	Substantially Complete	William Smith	CARDI CORPORATION
0177J	2012-CH-018	Route 165 Reclamation	Large	01/03/13	11/13/13	05/14/14	Active	Bert Roberts	CARDI CORPORATION
0078X	2012-CH-050	ADA - Metacom Avenue (Readvertise)	Large	09/20/12	08/13/13	12/04/13	Substantially Complete	Roland Omisore	CARDI CORPORATION
0061E	2012-CH-056	1R Impr. to Rte. 44 Cont. - 3C (Chepache	Large	09/13/12	10/31/13	11/26/13	Substantially Complete	Gary Tella	D'AMBRA CONSTRUCTION CO. INC.
0148E	2012-CH-067	Improvements to Route 216	Large	08/09/12	08/28/13	05/21/14	Active	Joe Amatore	CARDI CORPORATION
0012B	2012-CL-021	I-195 Relocation Landscape - Contract B	Large	04/17/12	11/30/15	11/30/15	Active	Steve Saracino	MON LANDSCAPING
0103Q	2012-CT-016	STC Signal Installations - Route 102 Left	Large	08/29/12	06/14/13	06/14/13	Substantially Complete	Richard Pisaturo	CARDI CORPORATION



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0112P	2013-CB-032	Wellington Ave Br Mitigation Phase II (F	Large	04/24/13	10/15/14	10/08/14	Active	Steven Drager	CARDI CORPORATION
0030D	2013-CB-062	Magnolia Bridge No. 503 Removal	Large	07/23/13	09/19/14	04/01/15	Active	Steve Ricci, Jr.	CARDI CORPORATION
0143B	2013-CB-080	Kent Dam Spillway Bridge No. 84 & Scitu	Large	11/26/13	11/21/14	05/07/15	Active	Anthony Pompei	MANAFORT BROS, INC.
0156B	2013-CB-083	Barton Corner Bridge No. 518	Large	09/17/13	11/20/14	05/20/15	Active	Don Murphy	D'AMBRA CONSTRUCTION CO. INC.
0010W	2013-CH-004	I-195 Relocation - Contract 14(West side	Large	02/20/13	10/30/14	11/18/14	Active	Peter DeSimone	CARDI CORPORATION
0094J	2013-CH-013	Northwest Bike Trail / Woonasquatucke	Large	07/17/13	05/22/14	05/20/14	Active	Tony Mawad	HK & S CONSTRUCTION
0026F	2013-CH-018	Trestle Trail - East Section	Large	07/31/13	11/14/14	10/31/14	Active	Don Murphy	MANAFORT BROS, INC.
0010X	2013-CH-056	I-195 Relocation - Contract 15 (East side	Large	06/26/13	08/27/15	07/15/15	Active	Peter DeSimone	D'AMBRA CONSTRUCTION CO. INC.
9103Q	2013-DF-084	Hurricane Sandy Repairs to the Newport	Large	10/09/13	06/13/14	06/23/14	Active	Joseph Godino	JOHN ROCCHIO CORP.
0144F	2010-CB-090	Branch Ave. Bridge 976 Replacement	N/A	08/11/11	05/15/13	05/13/13	Substantially Complete	William Carcieri	CARDI CORPORATION
9004Y	2011-CE-006	Downtown Intermodal Park Comfort Sta	N/A	10/18/13	10/16/14	10/23/14	Active	Justin McCoy	NEW ENGLAND BUILDING & BRIDGE CO., INC
0165T	2011-CH-102	Improvements to Route 146A	N/A	07/12/12	06/06/13	06/19/13	Substantially Complete	Harold Omisore	D'AMBRA CONSTRUCTION CO. INC.
0120Z	2011-CH-110	Statewide Drainage 2011 Contract C-1	N/A	03/06/12	12/15/12	03/18/13	Substantially Complete	Bill Smith	AMERICAN SITE CORP.
0119P	2011-CL-012	Statewide Tree Trimming Contract	N/A	07/25/11	12/31/13	12/31/13	Substantially Complete	Steven Saracino	STANLEY TREE SERVICE
0021T	2011-CL-091	Blackstone River Bikeway Segment 7A L	N/A	11/02/11	11/30/14	11/28/14	Active	Steve Saracino	MON LANDSCAPING
7006D	2011-CM-013	Statewide Guardrail Replacement and R	N/A	07/13/11	04/15/13	06/15/14	Active	Fouad Mabardi	COSCO
7009D	2011-CM-074	Statewide Fence Replacement and Repa	N/A	10/05/11	10/30/13	09/30/14	Active	Fouad Mabardi	COSCO
7005E	2011-CM-075	Statewide Impact Attenuator Replaceme	N/A	12/13/11	10/30/13	06/30/14	Active	Fouad Mabardi	COSCO
0085Z	2011-CR-055	2011 Rubberized Asphalt Chip Sealing	N/A	09/07/11	05/15/13	04/21/13	Substantially Complete	Mo Akinfolarin	ALL STATES ASPHALT, INC.
0116A	2011-CT-086	2012-2013 Statewide Pavement Striping	N/A	04/04/12	10/31/13	10/10/13	Substantially Complete	Jim DeLeo	SAFETY MARKING INC
0116B	2011-CT-087	2012-2013 Statewide Pavement Striping	N/A	04/17/12	10/31/13	10/31/13	Substantially Complete	Jim DeLeo	TRAFFIC MARKINGS,INC.
9500A	2011-DB-100	Arcadia Management Area Bridges	N/A	04/04/13	08/22/14	08/21/15	Active	Mohamad Bassam Nader	Northern Construction Service, LLC
0153A	2012-CB-054	Pascoag Bridge No 198	N/A	07/11/12	08/07/13	05/17/13	Substantially Complete	Anthony DeRensis	J.H. LYNCH & SONS, INC.
0201S	2012-CB-060	Bridge Preservation-Contract 1	N/A	11/20/12	11/22/13	06/26/14	Active	Yasser Alani	CARDI CORPORATION
0040C	2012-CB-076	Completion of Remaining Work for the E	N/A	08/15/12	09/30/12	01/22/13	Substantially Complete	Mike Swift	HK & S CONSTRUCTION
9102W	2012-CB-086	Type II Emergency Replacement of Navig	N/A	10/10/12	12/30/12	01/11/13	Substantially Complete	Dan Socree	ROSSI ELECTRIC CO.
0030J	2012-CB-089	Interim Shoring of Huntington Viaduct B	N/A	11/13/12	10/25/13	11/15/13	Substantially Complete	Robert B. Hayes II	AETNA BRIDGE CO.
0012K	2012-CB-092	IMPROVEMENTS TO INTERSTATE I-195 P	N/A	01/24/13	06/28/13	05/07/13	Substantially Complete	Roland Roy	AETNA BRIDGE CO.
0014W	2012-CH-052	Fishway and Dam Improvements at Pot	N/A	12/19/12	10/31/13	10/22/13	Substantially Complete	Thompson Akanji	NARRAGANSETT DOCK WORKS, INC.
0121B	2012-CH-079	Statewide Drainage Improvements 2012	N/A	11/27/12	05/15/13	05/20/13	Substantially Complete	Paul DeGiovanni	NEW ENGLAND BUILDING & BRIDGE CO., INC
0061D	2012-CH-082	Imp. to Rte. 44 Contract 2B - Austin Ave	N/A	11/14/12	10/31/13	05/05/14	Active	Gary Tella	CARDI CORPORATION
9011E	2012-CH-101	Type II Emer Drainage Repair Rt 1 SB at	N/A	12/12/12	05/15/13	05/07/13	Substantially Complete	Leo Boisclair	CARDI CORPORATION
0014V	2012-CL-009	Relocated Rt. 403 Phase 2 Landscape C-	N/A	04/19/12	11/30/14	11/30/14	Active	Steve Saracino	HK & S CONSTRUCTION
0169B	2012-CM-058	Statewide Median Guardrail Installation	N/A	08/16/12	05/17/13	07/26/13	Substantially Complete	Joe Giglietti	COSCO
0086J	2012-CR-071	2012 Rubberized Asphalt Chip Sealing	N/A	01/10/13	05/14/14	04/17/14	Active	Morris Akinfolarin	ALL STATES ASPHALT, INC.
0086I	2012-CR-072	2012 Crack Sealing Limited Access	N/A	11/01/12	08/29/13	07/08/13	Substantially Complete	Mike Hull	SEALCOATING INC
0086H	2012-CR-073	2012 Crack Sealing North & East	N/A	11/01/12	08/29/13	06/06/13	Substantially Complete	Mike Hull	ANNSEAL INC.
0086G	2012-CR-074	2012 Crack Sealing South & Central	N/A	11/01/12	08/29/13	05/31/13	Substantially Complete	Mike Hull	SEALCOATING INC
0116L	2012-CT-051	2012-2013 Statewide Pavement Striping	N/A	05/17/12	10/31/13	10/24/13	Substantially Complete	James DeLeo	ROADSAFE TRAFFIC SYSTEMS, INC.
0116D	2012-CT-090	2013-2014 Statewide Pavement Striping	N/A	05/23/13	10/31/14	10/31/14	Active	James DeLeo	TRAFFIC MARKINGS,INC.
0103R	2012-CT-094	High Risk Rural Roads Safety Improve	N/A	11/21/13	10/17/14	10/06/14	Active	Joe Giglietti	ROADSAFE TRAFFIC SYSTEMS, INC.
0201O	2012-DF-035	Statewide Bridge Scour Remediation - C	N/A	12/19/12	10/04/13	02/12/14	Substantially Complete	Lateef Animashaun	AETNA BRIDGE CO.
0201P	2012-DF-036	Statewide Bridge Scour Remediation - C	N/A	06/19/13	11/30/14	11/20/14	Active	Ray Castigliengo	AETNA BRIDGE CO.

## Active Projects During 2013

PTS ID	RIC Number	Project Name	SWPPP	NTP Date	Contractual Finish Date	Projected/Actual Finish Date	Current Project Status	RE Name	Contractor
0201Q	2012-DF-037	Statewide Bridge Scour Remediation - C	N/A	09/24/13	11/30/14	11/28/14	Active	Lateef Animashaun	HK & S CONSTRUCTION
0201J	2013-CB-011	DBP C11 Repairs to Wakefield Bridge No	N/A	03/05/13	11/12/13	09/13/13	Substantially Complete	Justin McCoy	J.H. LYNCH & SONS, INC.
9102X	2013-CB-061	High Priority Repairs to Hamlet Avenue	N/A	06/04/13	11/22/13	11/14/13	Substantially Complete	Bruce Santa Anna	AETNA BRIDGE CO.
0182B	2013-CB-106	High Priority Repairs to Lawton Bridge N	N/A	10/16/13	11/30/13	11/30/13	Substantially Complete	John Lonardo	AETNA BRIDGE CO.
0130L	2013-CH-009	1R Improvements to Elmwood Avenue (	N/A	07/18/13	10/31/14	11/14/14	Active	Normand Crete	D'AMBRA CONSTRUCTION CO. INC.
0172D	2013-CH-015	1R Improvements to Central Avenue/Su	N/A	06/25/13	11/13/13	11/16/13	Substantially Complete	John Spicola	NARRAGANSETT IMPROVEMENT CO.
0121A	2013-CH-036	Statewide Drainage Improvements 2013	N/A	05/21/13	10/15/13	10/30/13	Substantially Complete	Paul DeGiovanni	GREEN ACRES LANDSCAPE & CONSTRUCTION, INC.
9200C	2013-CH-065	I-295 Drainage System Cleaning, Inspect	N/A	10/21/13	08/28/14	08/22/14	Active	Bill Carcieri	CARDI CORPORATION
0087Y	2013-CH-075	I-295 Ramps Resurfacing Warwick to Ma	N/A	10/17/13	09/10/14	09/10/14	Active	Thompson Akanji	D'AMBRA CONSTRUCTION CO. INC.
0173T	2013-CH-107	2013 Statewide Resurfacing Program	N/A	10/10/13	07/01/14	07/01/14	Active	Morris Akinfolarin	D'AMBRA CONSTRUCTION CO. INC.
0086N	2013-CR-086	2013 Paver Placed Elastomeric Surface T	N/A	09/18/13	07/31/14	07/31/14	Active	Morris Akinfolarin	J.H. LYNCH & SONS, INC.
0086L	2013-CR-090	2013 Crack Sealing North & East	N/A	09/10/13	08/28/14	08/28/14	Active	Michael Hull	SEALCOATING INC
0137C	2013-CT-014	Dean Street and Cahir Street Lighting Im	N/A	07/09/13	12/10/13	05/21/14	Active	Dan Socree	ROSSI ELECTRIC CO.
0116M	2013-CT-066	2013-2014 Statewide Pavement Striping	N/A	06/04/13	10/31/14	08/04/14	Active	James Deleo	ROADSAFE TRAFFIC SYSTEMS, INC.
0165Z	2014-CH-041	Type II Emergency Replacement of Woo	N/A	11/22/13	12/30/13	12/20/13	Substantially Complete	Joseph Amatore	Northern Construction Service, LLC

<b>RI Contract #</b>	<b>Final Inspection Date</b>	<b>Resident Engineer Number</b>
2012-CH-007	1/9/2013	Anthony Cotoia
2010-CT-094	2/5/2013	James DeLeo
2010-CT-095	2/6/2013	James DeLeo
2012-CH-075	2/19/2013	Robert Ferrara
2013-DF-031	3/12/2013	Thompson Akanji
2013-DF-038	3/12/2013	Thompson Akanji
2011-CH-043	3/13/2013	Normand Crete
2013-DF-039	3/20/2013	Stephen Ricci, II
2011-CH-019	3/27/2013	John Spicola
2012-CH-044	4/3/2013	Justin McCoy
2011-CB-083	4/9/2013	Tony Mawad
2013-DF-033	4/10/2013	Justin McCoy
2012-CB-076	4/30/2013	Michael Swift
2012-CT-043	5/21/2013	Terrance McIlmail
2013-DF-053	6/4/2013	Gregory Palumbo
2013-DF-035	6/5/2013	Michael Swift
2013-DF-045	6/5/2013	Michael Swift
2010-DF-030	6/12/2013	Stephen Ricci, Jr.
2011-CH-110	6/18/2013	William Smith
2012-CH-101	6/19/2013	Leo Boisclair
2013-DF-028	6/20/2013	Joseph Godino
2013-DF-051	6/25/2013	Thompson Akanji
2012-CB-054	6/26/2013	Anthony DeRensis
2012-CB-083	6/27/2013	Anthony DeRensis
2010-CB-090	7/9/2013	William Carcieri
2012-CH-003	7/16/2013	Stephen DeRiso
2013-DF-053	7/23/2013	Gregory Palumbo
2013-DF-054	7/31/2013	Joseph Godino
2012-CT-016	8/7/2013	Richard Pisaturo
2011-CH-108	8/14/2013	Stephen Ricci, Jr.
2012-CH-079	8/15/2013	Paul DeGiovanni
2012-WO-100	8/20/2013	James DeLeo
2011-CH-102	8/22/2013	Harold Omisore
2012-CH-040	8/28/2013	Vahe Sahakian
2013-DF-034	9/4/2013	Stephen Ricci, Jr.
2013-CB-108	9/9/2013	Bob Hayes
2010-CB-004	9/25/2013	John Lonardo
2010-CT-069	10/15/2013	Terrance McIlmail
2012-CM-058	10/16/2013	Joseph Giglietti
2012-CH-005	10/22/2013	Stephen Ricci, Jr.
2011-CB-041	10/30/2013	Vahid Bijari
2013-CB-011	11/6/2013	Justin McCoy
2011-CH-084	11/13/2013	Bob Lindo
2012-CH-052	11/26/2013	Thompson Akanji
2013-CH-036	12/3/2013	Paul DeGiovanni
2012-CH-010	12/5/2013	William Smith
2013-CH-021	12/10/2013	Thompson Akanji
2013-CH-015	12/12/2013	John Spicola

**48 Inspections**

	Train-the-Trainer Participant	Date of Facility Staff Training for SWPPP/SPCC	# of Catch Basins Cleaned	
Glocester	Brackett			
Midstate	Maguire/Kelley	9-Aug	237	Maguire
Belleville	Bio		36	Auger
Hope Valley	D. Baker/Shirley	Multi	15	D. Baker
Portsmouth	Iannuccilli/Goulet		196	Iannuccilli
Smithfield				
East Providence				
Headquarters	Carroll/Nunez	27-Jun		
Motor Pool	Pontarelli/Senerchia		n/a	
TOTAL			484	

CONTRACT #	FINAL INSP DATE		708.9040 CLEANING AND FLUSHING PIPE ALL SIZES	708.9041 CLEANING CATCH BASINS ALL TYPES AND SIZES	708.9042 CLEANING MANHOLES ALL TYPES AND SIZES
2010-CB-004	9/25/2013	I-95 Pawtucket Bridge #550	12,921	195	45
2010-CB-090	7/9/2013	Branch Ave Bridge #976	644	54	6
2010-CT-069	10/15/2013	Green End Ave/Valley Rd	1556	4	2
2010-CT-094	2/5/2013	Striping - East Bay			
2010-CT-095	2/6/2013	Striping - North			
2010-DF-030	6/12/2013				
2011-CB-041	10/30/2013	Orms St Bridge #702		11	
2011-CB-083	4/9/2013	Ten Mile River Bridges #478 & 479	3084	27	21
2011-CH-019	3/27/2013	Route 102 C-2	45500	126	78
2011-CH-043	3/13/2013	Waterfront Drive - Warren Ave to Dexter Rd	1200	7	2
2011-CH-084	11/13/2013	Ten Mile River Bike Path C-7A			
2011-CH-102	8/22/2013	Route 146A	6460	64	32
2011-CH-108	8/14/2013	Route 138 - NK	15943	62	10
2011-CH-110	6/18/2013	Statewide Drainage 2011 C-1			
2012-CB-054	6/26/2013	Pascoag Bridge #198		5	
2012-CB-076	4/30/2013	Barrington Bridge #123 - Completion			
2012-CB-083	6/27/2013	Anthony Rd Bridge #876			
2012-CH-003	7/16/2013	Sakonnet Point Culvert			
2012-CH-005	10/22/2013	West Main Rd C-3	11000	80	9
2012-CH-007	1/9/2013	Fruit Hill Ave C-2		1	2
2012-CH-010	12/5/2013	Northwest Bike C-4			
2012-CH-040	8/28/2013	Statewide Drainage 2012 C-1	73	2	2
2012-CH-044	4/3/2013	Irene Damage Repair - Statewide (LS)			
2012-CH-052	11/26/2013	Potowomut Dam			
2012-CH-075	2/19/2013	I-WAY Diamond Grinding			
2012-CH-079	8/15/2013	Statewide Drainage 2012 C-3			
2012-CH-101	6/19/2013	Rt 1 Emergency Repairs at Woodruff	347	2	
2012-CM-058	10/16/2013	Median Guardrail			
2012-CT-016	8/7/2013	Route 102 NK -Left Turn lanes	913	11	
2012-CT-043	5/21/2013	2012 STC C-1			
2012-WO-100	8/20/2013				
2013-CB-011	11/6/2013	Wakefield Bridge #20			
2013-CB-108	9/9/2013				
2013-CH-015	12/12/2013	1R Central Ave/Sunset Ave	4527	48	
2013-CH-021	12/10/2013	1R Post Rd Warwick	2917	24	1
2013-CH-036	12/3/2013	Statewide Drainage 2013 C-1		1	
2013-DF-028	6/20/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-031	3/12/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-033	4/10/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-034	9/4/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-035	6/5/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-038	3/12/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-039	3/20/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-045	6/5/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-051	6/25/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-053	6/4/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-053	7/23/2013	PTS Sandy Emergency Contract (LS)			
2013-DF-054	7/31/2013	PTS Sandy Emergency Contract (LS)			
	<b>TOTAL</b>		<b>107085</b>	<b>724</b>	<b>210</b>

## Liquid Salt Reducing Sand on R.I. Roads

Friday, February 8, 2013 at 8:42AM

ecoRI News

By TIM FAULKNER/ecoRI News staff

There's less sand on Rhode Island's roads this year. The big reason: the state has cut back on spreading sand to melt snow and ice. Instead, the state Department of Transportation (DOT) is treating a portion of its 1,100 miles of road with liquid brine, which is essentially salt water.

This salt solution, officials say, is more potent than the traditional sand-salt mixture and saves money. Typically, 200-300 pounds of the salt-sand mix treat a mile of road, whereas only 80 pounds of the brine covers the same area.

The solution is mixed in tanks at the DOT's East Greenwich garage. A 23 percent salinity is needed for the solution to work effectively. The brine treatment is not new, but technology to test the mixture has improved.

This salt brine can be applied up to three days before a storm, leaving a white, chalky coating that bonds with the roadway after the water evaporates. Previously, the sand-and-salt mixture was prone to be blown to the side of the road by traffic if applied too early.

"Before we had to (apply) it just before the storm," DOT spokesman Charles St. Martin said.

The reduction in sand also means less clogging of storm drains and less sediment build up in rivers and streams.

The liquid salt is only a pre-treatment. Salt and sand are still applied during storms.

The salt spray is also less effective if the roads are too cold. The salt solution turns to crystal-like pebbles, which are prone to blow to the side of the road.

According to the DOT, the mixture doesn't contain toxins. The same can't be said for what other states use. Ohio occasionally treats its roads with oilfield brine, which is water pumped from an oil or gas well. The brine can contain dangerous levels of heavy metals.

Some states and Ontario, Canada, are experimenting with beet juice as a road de-icer. The vegetable liquid is a byproduct of sugar production.

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