



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

### **Progress Report University of Rhode Island February 8, 2006**

Reporting Period:	January 1, 2006 to December 31, 2006 (Year 1)
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Project Period:	10/1/05 – 3/31/09



## ***Progress Summary***

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

***January 1 – December 31, 2006***

#### **Project Description**

Under this project the University of Rhode Island Cooperative Extension is developing public education materials, outreach methods and related tools to assist the RI Department of Transportation (RI DOT), Rhode Island municipalities, and other groups implement effective stormwater management programs. With RI Department of Environmental Management oversight, this education and outreach project will directly support RIDOT and participating municipalities in complying with Phase II permit requirements.

The major project objectives are to:

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

#### **Accomplishments**

- Project initiated February 2006 with final grant agreement between URI and RI DOT. Developed subcontract with the Southern Rhode Island Conservation District (SRICD) for training assistance.
- Completed a local needs assessment based on review of municipal stormwater management program plans and annual reports submitted for the first two years of the Phase II program.
- Organized project advisory committee and held project kickoff meeting June 1, 2006.
- Conducted an extensive review of national stormwater outreach efforts. This review was summarized in the document, "RI NEMO Review of National Stormwater /NPS Outreach Efforts" and in a PowerPoint presentation, "Caution! Cute Can Be Dangerous," presented to at the first meeting of the Advisory Committee.
- Developed a Request for Proposals for assistance in developing a statewide media campaign, and organized a review committee to evaluate bid received and prepare contract.

- With RIDEM and the URI Geospatial Extension program, co-sponsored a set of GIS workshops for municipal officials to support use of GPS in stormdrain mapping “Introduction to GPS for Stormwater Managers”, June 2006 and “Pictures, Points, and Places”, July 2006.
- Created a Stormwater Management Resource Center website (<http://www.uri.edu/ce/wq/RESOURCES/STORMWATER/index.htm> ), which acts as an informational hub for members of the Project throughout the life of the Project.
- Started working with Connecticut NEMO to develop a web-based inventory of RI LID projects. This will highlight practical LID applications in RI and CT as an education tool for local officials and others. CT NEMO will host the RI case studies at [http://clear.uconn.edu/tools/lid/bmp\\_by\\_town.asp](http://clear.uconn.edu/tools/lid/bmp_by_town.asp)
- Worked with DEM to develop step-by-step instructions for creating GIS maps to support better site design. This led DEM to further simplify the mapping process by creating a set of interactive maps on CD for site assessment. Expected release date is March 2007.
- Collected educational materials, model ordinances, and drafted training outlines for several training topics in coordination with DEM, DOT and the SRICD.
- Drafted requirements for municipalities to demonstrate compliance with Phase II minimum measures for public education and outreach and related requirements through participation in this program.
- Created a Stormwater Management Resource Center website which acts as an informational hub for project members throughout the life of the project at <http://www.uri.edu/ce/wq/RESOURCES/STORMWATER/index.htm>

### **Future Activities**

- Expand project website to offer a “toolbox” of materials for municipalities seeking to further public education, outreach, and involvement in community stormwater management.
- With the invitation for municipalities to participate in the program sent in January 2006, and responses due March 2007, we expect to begin working closely with both the project advisory committee and municipalities in this next year. The local needs and interest survey will provide a baseline for evaluating effectiveness of future educational activities.
- Training outlines, draft educational modules, and updated workshop schedules accommodating deferred release of the DEM stormwater standards manual, to be reviewed with the advisory committee and municipal work group in early 2007. Expect to begin conducting workshops in Spring 2007.
- The proposal for outreach services from the Clarendon Group Inc. was considered acceptable and a recommendation was made to award the bid. URI will develop the contract and invite advisory committee members to participate in an ad hoc group to guide development of the statewide media campaign.

**Storm Water Phase II Public Outreach, Education, Involvement and Participation Project  
Progress by Task January 1 – December 31, 2006**

**A. Local Needs Assessment and Advisory Committee Development**

**Tasks**

**Progress 2006**

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| <p>1. Form and facilitate an advisory steering committee with input from DEM and DOT</p> <p>a) Maintain communication by email, mail and web, meetings.</p> <p>b) Organize a work group of municipal and non traditional stormwater managers (local groups) responsible for implementation of Phase II measures.</p> | <p>Advisory committee organized in May, 2006. Solicited for members of advisory committee and received 55 positive responses. Composition: 28% state agency, 14% municipal, 11% consultants, 37% non-profit and academic.</p> <p>First advisory committee meeting held in June, 2006. Meeting minutes provided to all attendees. Minutes, agenda, attendance record, presentations and handouts posted on project web-site.</p> <p>Developed project web-site located at:<br/><a href="http://www.uri.edu/ce/wq/RESOURCES/STORMWATER/index.htm">http://www.uri.edu/ce/wq/RESOURCES/STORMWATER/index.htm</a></p> <p>Stormwater message ad hoc committee formed to assist in developing message for statewide media campaign. Task completed in June 2006.</p> <p>Continued to maintain the web-site and advisory committee list.</p> <p>Worked with DEM staff to determine level of participation in this initiative to meet required minimum measures as qualifying local program.</p> <p>Prepared draft materials for mailing to inform municipalities of the education and outreach program and solicit their participation.</p> |
| <p>2. Conduct a needs assessment.</p> <ul style="list-style-type: none"> <li>▪ Review available sw mgt plans</li> <li>▪ Survey municipal stormwater management capacity</li> </ul>   | <p>Obtained limited available needs assessment information but found insufficient due to small sample size and/or age of data.</p> <p>To obtain baseline information on local accomplishments and needs without asking local officials for information previously submitted, we reviewed all annual reports submitted for the first two years of the Phase II program, and a representative sample of Storm Water Management Program Plans (SWMPPs).</p> <p>Summarized results of this review of SWMPPs and annual reports. Completed this task June, 2006.</p>  |

**Task A Issues and Future Activities**

Invitation for municipalities to participate in the program was delayed pending resolution of expectations for qualifying local program. With notices sent in January, and responses due March 2007, we expect to begin working closely with both the project advisory committee and municipalities in this next year. The local needs and interest survey will provide a baseline for evaluating effectiveness of future educational activities.

## B. State, Municipal and Private Sector Training Curriculum Development

### Tasks

### Progress 2006

1. Prepare a list of training needs based on 7 training topics (listed below) and the local needs assessment. Solicit review and comment from the advisory committee.
 

The scope of work and training topics were reviewed and accepted by the advisory committee.

Met with RIDEM, RIDOT, and SRICD to refine training needs and approach. Coordinated with DEM, SRICD, NRCS and CRMC and CRC staff on Metro bay and Greenwich bay training programs to identify current training opportunities and gaps. Staff attended metrobay training programs.

Executed a subcontract with SRICD for training on selected topics.
  
2. Prepare outlines of training modules and solicit review and comment from the advisory committee on the following training topics:
  - 1) DEM Stormwater manual:
    - Overview of manual and standards;
    - Proper use of LID mgt practices; and
    - TR55 for LID application.
  - 2) Public Outreach
    - Scope of the stormwater problem and impacts on local waters in urban, suburban and rural areas;
    - Methods for effective community education and outreach by municipalities.
  - 3) Pollution Prevention and Good Housekeeping for Municipalities to include:
    - Public works facilities O&M;
    - Roadway stormwater system maintenance; and
    - Grounds management.
  - 4) Illicit Discharge Detection and Elimination
  - 5) Development and Amendment of Enforceable Policies:

Developed draft training outlines on following training topics in cooperation with DEM and SRICD.

**DEM Stormwater Manual training**

  - Overview of manual and standards. Drafted training outline based on DEM updated standards but decision later made to delay training until manual is finalized.
  - Proper use of LID practices. Investigated training options available with nationally recognized LID professionals including Center for Watershed Protection, LID Center and Larry Coffman. Mr. Coffman was considered the best choice given training emphasis on use of soils in LID design and selection, flexibility to customize for Rhode Island conditions, and cost. Draft training outline developed and planning initiated for March training with Mr. Coffman. DEM decision later made to delay technical training on LID practices until DEM standards are finalized.
  - TR55 for LID application. Based on discussions with DEM staff, identified need for two-level training: 1) basic use of TR55 for local officials and others responsible for plan review, and 2) use of TR55 in LID planning and design. Outlined topics for basic TR55 training based on DEM staff input. The SRICD established an agreement with the NRCS to conduct this training. Specialized training in use of TR55 for LID practices to be offered separately, possibly with LID training.

**Model ordinances on post construction stormwater control and related Public Outreach**

  - Collected materials for public education on extent of stormwater impacts.
  - Collected post-construction stormwater control ordinances adopted by RI municipalities and examples from other areas.
  - Met with DEM and Narragansett Bay National Estuarine Research Reserve (NBNEER) to coordinate municipal outreach. Reached agreement to separate development of model ordinances and related training on post construction stormwater control into “nonstructural” methods (ex. land use, better site design, conservation development) vs. small scale upland controls and other structural techniques. Training on later to be developed based on DEM updated standards while allowing development of training on “nonstructural” site design issues.
  - Developed step-by-step instructions for creating GIS maps for site plan review, using Conservation Development design methods to promote use

- Soil erosion and sediment control; stormwater utility districts.
  - Post-construction stormwater maintenance and re-development standards; pet waste.
- 6) Budget Planning  
7) Additional DOT staff training

of GIS mapping for better site design. Met with DEM staff to review draft and discuss options. Consequently, DEM decided to further simplify the process by creating a set of interactive maps on CD. The CD, being developed by Paul Jordan, DEM GIS specialist, is expected to be completed in March, 2007 and will be distributed to all municipalities.

- Participated in two regional LID workshops to present information on the URI Porous Asphalt Parking Lots and used these opportunities to gather current information for LID education and outreach: Comprehensive Environmental, Inc. sponsored workshop: Is LID for Real, 10/04/05, Taunton, MA; and National NEMO, Low-Impact In-Service Training, 11/02/05, Portsmouth, NH.
- Partnered with the Blackstone River Coalition and Mass. Audubon to organize a workshop for municipal officials *Controlling Stormwater Runoff Through Better Site Design* (April 4), Cumberland, RI.
- To enhance awareness of LID practices for municipalities and other groups, developed an agreement with the University of Connecticut NEMO to expand the web-based LID Inventory to include RI case studies. This web site will highlight practical LID applications in RI and CT as an education tool for local officials, state regulators, designers, installers and others. CT NEMO will host both CT and RI case studies at [http://clear.uconn.edu/tools/lid/bmp\\_by\\_town.asp](http://clear.uconn.edu/tools/lid/bmp_by_town.asp), making a broader range of case studies available to target audiences in both states. URI staff drafted several RI case studies based on limited available information.

**Model ordinance on Erosion and sediment control and related public outreach**

- Collected existing soil erosion and sediment controls adopted by RI municipalities.
- Compared model soil erosion and sediment control ordinance in current enabling legislation with Phase II requirements to identify key updates needed to meet minimum measures for construction site stormwater control.

**Pollution Prevention and good housekeeping for municipal facilities**

- Draft outline developed for municipal storm sewer system O&M.

**Illicit discharge detection and elimination and related public education**

- Facilitated the organization and planning of two workshops to support use of GIS/GPS in storm drain mapping in cooperation with RIDEM and the URI Geospatial Extension Program: Introduction to GPS for Stormwater Managers (June 2006); and Pictures, Points, and Places (July 2006). Participants at workshop 1 represented 12 RI municipalities. Attendees rated the workshop relevant and practical for their town work, with an average ranking of 4.25 on a scale of 1 to 5. Their self-rated ability to accomplish the tasks emphasized in the workshop increased significantly.

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| 3. Draft training modules.   | To be developed following approval of training outlines.              |
| 4. Finalize training modules and establish workshop schedules for each module. | Workshop schedule to be revised and reviewed with advisory committee. |
| 5. Hold workshops for each module.   |   |

### Task B Issues and Future Activities

The updated DEM stormwater standards manual is the keystone of local stormwater programs, essential for training in stormwater system design and maintenance, development of model ordinances for post-construction stormwater control, and related public education. As a result, delays in finalizing the manual have affected our schedule. With estimated manual completion date now fall 2007, we will be moving ahead with other training elements. This will include local stormwater management practices and related ordinances focusing on land use and site design methods that are less dependent on updated DEM standards.

The workshop schedule has been revised and will be reviewed with the advisory committee, with training module outlines.

### C. Coordinated Stormwater Message for Use in Public Outreach

#### Tasks

#### Progress 2006

1. Review and collect current outreach materials used in Rhode Island for stormwater management (especially, FHWA, EPA, DOT and DEM materials).

Reviewed library of stormwater outreach materials collected by DEM.

Identified outreach materials used by municipalities through review of Phase II annual reports. Completed this task June 2006.
2. Review national literature for comparative purposes and identify other appropriate outreach materials, messages and delivery methods.

Reviewed EPA library of stormwater outreach materials, initially as member of beta testing group.

URI staff attended the 4<sup>th</sup> National Conference on Nonpoint Source and Stormwater Education Programs, Chicago, IL (Oct. 2005) and used information obtained in this review.

Conducted an extensive review of national stormwater outreach efforts focusing on educational campaigns that have been evaluated. This review was summarized in the document, "RI NEMO Review of National Stormwater/NPS Outreach Efforts." The conclusions of that review included suggestions for how to target the outreach message. The document was distributed to members of the project team at RIDEM and RIDOT.

The results of the review were also summarized in a PowerPoint presentation, "Caution! Cute Can Be Dangerous," presented at the first Advisory Committee Meeting for the Stormwater Project on June 1, 2006. A response to questions generated at that meeting was prepared and circulated to the members of the Advisory Committee.

This task completed June 30, 2006,

Continuing to monitor national outreach materials through, the EPA library, NEMO national network, the EPA NPS listserve, and other sources.
3. Prepare a consistent message for state agencies, communities and watershed organizations regarding why the public should be concerned about the impacts of stormwater on

Surveyed stormwater advisory committee members on major pollutants of concern as basis for statewide message.

Prepared a request for Proposals (RFP) for a Public Relations firm to assist in determining the state-wide message. This incorporated suggestions for targeting the outreach message based.

The RFP was processed through URI purchasing.

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| <p>receiving waterbodies. Solicit review and comment from the advisory committee.</p>   | <p>One bid was received in December, 2006 from Clarendon Group Inc. URI proceeded to organize review committee and evaluate proposal.</p>   |
| <p>4. Identify best available options for delivery of the messages and materials discussed in task 3 and 6.</p>   | <p>Based on national review and advisory committee input, developed a suggested approach for statewide message and incorporated this into the RFP for consulting services. This task to be completed with assistance from outreach consultants.</p>   |
| <p>5. Deliver the consolidated state-agency message in task 3. Continue delivery of consolidated message.</p>   | <p>To be developed with consultant.</p>   |
| <p>6. Using the consistent message in task 3 as a starting point, develop source-specific contamination outreach messages and materials.</p>                                    | <p>Collected materials for public education on extent of stormwater impacts, and education and outreach strategy for local businesses focusing on managing runoff from the site and compliance with IDDE minimum measures. Outreach message and delivery strategies to be developed with input from media consultant.</p> |
| <p>7. Run a pre-survey followed up by post-survey after the outreach is conducted to see how effective the program was. Make adjustments to the outreach program as needed.</p> | <p>Survey design to be developed with input from the media consultant.</p>  |

**Task C Issues and Future Activities**

The bid from Clarendon Group Inc. was considered acceptable and a recommendation was made to award the bid. URI will develop the contract and work with the advisory committee to develop the outreach strategy.

**D. Implementation Schedule, Evaluation and Assessment**

**Tasks**

**Progress 2006**

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| <p>1. Develop an implementation schedule each permit year for each set of tasks in the scope of work and solicit review and comment from the advisory committee.</p> | <p>URI / DOT project agreement finalized February 14, 2006.<br/><br/>Developed an detailed implementation schedule and completed this task April, 2006</p>   |
| <p>2. Incorporate comments from the advisory committee and present to DOT and DEM for final approval.</p>  | <p>DEM and DOT comments incorporated.</p>  |
| <p>3. Draft annual evaluation and assessment reports for this scope of work each permit year and solicit review and comment from the advisory committee.</p>         | <p>Drafted requirements for municipalities to demonstrate compliance with minimum measures 1 and 2 and education and outreach elements of other required measures through participation in this program.</p> |
| <p>4. Incorporate comments from the advisory committee and present</p>   |  |

report to DOT and DEM for final approval.

5. With assistance of advisory committee, adjust implementation schedule as needed based on annual evaluation. Provide any recommended changes to DOT/DEM for final approval

Annual implementation schedule developed April 2006 will be updated March 2007.

**Task C Issues and Future Activities**

Annual implementation schedule to be revised with updated training calendar with input from DEM, DOT and advisory committee.