

PROJECT SUMMARY

- a. **Project Title** – MS4 Construction Site Runoff Control Environmental Results Program
- b. **Project Applicant** – Rhode Island Department of Environmental Management
- c. **State Project Manager** – Ronald Gagnon, P.E., Chief; Office of Technical and Customer Assistance; 235 Promenade Street, Providence, RI 02908-5767 Phone: (401) 222-6822, extension 7500; Fax: (401) 222-3810; email: ron.gagnon@dem.ri.gov
- d. **Total Project Cost** - *[Budgetary Information Withheld by U.S. EPA]*
- e. **Project Period** – October 1, 2007 to September 30, 2010
- f. **Summary Statement** - DEM, working with the University of Rhode Island, Center for Pollution Prevention and Environmental Health, will develop a self-certification program using ERP tools for the use of BMPs to control erosion and sedimentation from construction sites greater than one acre. The project is needed to help stressed MS4 operators meet the Phase II Stormwater Control requirements.
- g. **Statutory Authority and Flexibility** - Federal authority for this project is granted pursuant to the Clean Water Act. State authority is granted pursuant to Chapters 46-12, 42-17.1 and 42-35 of the General Laws of Rhode Island as amended. Federal regulatory flexibility to implement project is not required.
- h. **State Agency Support** - W. Michael Sullivan, PhD., Director of the Department of Environmental Management, is aware of this application and endorses this project.

NARRATIVE

Project Description – The Construction Site Runoff Control minimum control measure is one of six measures that the operator of a Phase II regulated small municipal separate storm sewer system (MS4) is required to include in its stormwater management program to meet conditions of its Rhode Island Pollutant Discharge Elimination System (RIPDES) permit. The Department of Environmental Management (DEM) works with thirty-four (34) Storm Water Coordinators to implement the requirements of the Phase II Final Rule. The DEM amended the RIPDES Regulations on February 5, 2003 to include the Phase II requirements for regulated MS4s. The regulations require MS4s to comply with six Minimum Control Measures. This grant proposal presents an ERP approach to self-certify compliance with, confirm compliance with, and measure compliance with the Construction Site Runoff Control Minimum Control Measure.

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to their MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Thirty-three (33) of the thirty-four (34) MS4s in Rhode Island have developed and implemented programs with the 34th municipality currently submitting their program requirements for review. Enforcement of the program continues to be a challenge for the Storm Water Coordinators. There are simply not enough resources available to inspect regulated construction sites for compliance with their storm water pollution prevention plans (SWPPPs) required under the RIPDES General Permit for Storm Water Associated with Construction Activity (the General Permit).

The DEM is proposing to develop a compliance check list for distribution to all applicants that submit a Notice of Intent (NOI) and the Storm Water Coordinators to facilitate their inspection and enforcement programs. The check list requirements will be based on the General Permit conditions for compliance and will focus on the installation and maintenance of Best Management Practices (BMPs) to control sediment and erosion from the regulated construction sites. DEM will also develop a training program for the applicants and the inspectors on how to use the check list to maximize their inspection capabilities. Environmental Business Practice Indicators (EBPIs) based on the Measurable Goals developed by EPA and other performance criteria will be selected and measured to evaluate the program's success.

The project is needed to help stressed MS4 operators meet the following Phase II requirements:

- Have procedures for site inspection and enforcement of control measures;
- Have sanctions to ensure compliance;
- Establish procedures for the receipt and consideration of information submitted by the public; and
- Determine the appropriate BMPs and measurable goals for the minimum control measure.¹

¹ EPA Fact Sheet 2.6, Stormwater Phase II Final Rule, Construction Site Runoff Control Minimum Control Measure, January 2000 (revised December 2005).

This proposal will address the specific problem of noncompliance with the requirements of the Rhode Island General Permit for Stormwater Associated with Construction Activity that includes compliance with the Stormwater Phase II Final Rule for Construction Site Runoff Control Minimum Control Measure (Specific link to EPA's Strategic Goal 2 – Clean and Safe Water). Diminishing resources at the federal, state and local levels is making it much more difficult for MS4 operators to implement compliance and inspection programs. The ERP approach will allow the DEM and the MS4 operators to work together to conduct statistically significant numbers of inspections (currently under State rule, all construction sites must be inspected, the self-certification will be used to meet this requirement) to measure compliance with the selected EBPIs, target compliance actions that will achieve maximum benefit, respond more efficiently to public concerns, and develop reports that indicate documented improvements with (or troubles with) compliance. This strategic innovation will enable a more efficient use of limited resources and produce measurable environmental results.

The vision for this project's development and impact is as follows:

1. DEM, working with the University of Rhode Island, will develop a compliance check list based on the General Permit conditions for the use of BMPs to control erosion and sedimentation along with other requirements of the General Permit. The Check List will be modeled on the check lists successfully developed by this partnership for the Auto Body and Auto Salvage Yard sectors. The check list will include a self-certification requirement for the General Permit notifiers.
[It is anticipated that this portion of the project would be completed in approximately six (6) months.]
2. DEM will estimate the number of projects that will be regulated under this program by reviewing the number of Notifications of Intent received for coverage under the General Permit, on an annual basis, for the last three calendar years. The average will be calculated and used in the CADMUS Results Analyzer to determine the number of random, baseline inspections needed to perform future EBPI measurements. Random, base line inspections will be performed by the DEM/URI partnership to determine compliance status with the check list parameters. A specific number of EBPIs will be selected based on the EPA Measurable Goals Guidance for Phase II Small MS4s and the results of the base line inspections. A base line compliance report will be developed as an outcome of this step. [It is anticipated that this portion of the project would be completed in approximately six (6) to nine (9) months.]
3. DEM and URI will solicit a number of past Notifiers, contractors, consultants, representatives from non-governmental organizations, and other interested parties for interest in joining a stakeholder group to review, comment, and advise on issues concerning this program. We would schedule from two to four meetings throughout the development of the project to discuss specific milestones such as the draft check list and self-certification component, base line results, and inspection and enforcement strategies. Reports from each meeting will be written and provided to EPA. [This portion of the project would be conducted over the first 12 – 18 months of the grant period.]

4. DEM and URI will develop a training program for past and prospective Notifiers and industry representatives that would be subject to the self-certification inspection. The training will focus on how to conduct an inspection using the check list, correct any deficiencies, use of the Return-to-Compliance forms, and other factors important to maintain compliance with the General Permit. The training will build on current programs for BMP design and implementation. A Power Point presentation will be developed for the training and will be made available to EPA and any other state or MS4 interested in the training. [It is anticipated that this portion of the project would be completed in approximately three (3) months.]
5. DEM will distribute the final Check List with certification statements to all persons that submit a Notice of Intent for coverage under the General Permit. DEM will also provide check lists and certification statements to the Storm Water Coordinators for distribution to Notifiers in their respective MS4s. DEM will investigate and develop cost estimates to establish a centralized data base for the electronic submission of all inspection check lists (self –certifications, random inspections, targeted inspections by both DEM and Storm Water Coordinators) The check list and certification statement will be made available to EPA and any other interested state or MS4. [It is anticipated that this portion of the project would be completed in approximately six (6) months.]
6. DEM will work with the Storm Water Coordinators to develop an inspection strategy based on the number of random inspections needed (using the CADMUS Sample Analyzer) to measure performance of the EBPIs. DEM and URI will conduct the training program after the Check Lists are distributed and the regulated community has had a chance to become familiar with the program through the public stake holder process. [It is anticipated that this portion of the project would be completed in approximately three (3) months.]
7. DEM and the Storm Water Coordinators will conduct the random inspections and a select number of targeted inspections using the check list on a regular basis (may be annual or biannual). All data will be gathered by DEM for statistical analysis. A report indicating performance with the selected EBPIs will be generated. [It is anticipated that this portion of the project would be completed in approximately six (6) to nine (9) months.]
8. DEM and the Storm Water Coordinators will develop a compliance policy for enforcement to ensure that referrals are made using consistent information and actions are taken on a consistent basis. [This portion of the project will be completed within the time frame of Step 7 above.]

Therefore the grant period need to complete the above eight steps is approximately 36 months.

The Department of Environmental Management has significant experience in the development and implementation of Environmental Results Programs. We have developed programs for the Auto Body Sector, the Underground Storage Tank Sector, for dentists that have installed amalgam separators, for contractors that remove exterior lead paint, and we are currently developing a program for the Auto Salvage Sector.

The DEM, in partnership with the University of Rhode Island, has the expertise/qualifications/knowledge and resources to successfully achieve the goals of the project. Staff from the Office of Water Resources, RIPDES Section, will provide the technical expertise to develop the BMP check list, training components and inspection components of the project. Staff from the Office of Technical and Customer Assistance (OTCA) have experience in the development of the ERPs noted above and will provide the expertise and knowledge to ensure this program is consistent with the existing programs. OTCA has specific expertise in planning programs, working with stakeholders, statistical analysis, and report writing to ensure that the project goals and schedule are met. The University of Rhode Island has significant experience with the development of ERPs, conducting base line inspections, and providing consultation for the development of the statistical methods.

Program Guidelines, Eligibility Requirements, and Selection Criteria – The proposed Environmental Results Program project meets the four major elements of EPA’s *Innovation Strategy* by strengthening EPA’s innovation partnership with the State of Rhode Island, by focusing on a priority environmental issue – restoring and maintaining water quality, by using diverse environmental protection tools (BMP check lists and self-certification) and approaches to produce results-based goals and measures (statistically significant EBPIs), and by fostering more “innovation-friendly” systems and organizational cultures (through EPA support and funding, ERP continues to expand within the DEM).

This ERP is proposed for a statutory required program (NPDES/RIPDES) under the Clean Water Act and is directly aligned with EPA’s Strategic Plan Goal 2 – Clean and Safe Water.

The project meets the EPA Threshold Criteria by:

1. The project consists of activities authorized under the Clean Water Act. The ERP approach to measuring compliance with nationally used BMPs for stormwater control will provide a first ever statistically significant indication of how effective these BMPs are. The project will advance the state of knowledge and will transfer this information to EPA and will provide a format for other states to follow. If other states follow this approach, EPA will be able to compare compliance with BMPs on a national basis and make informed decisions on their effectiveness and needs for future training and research.
2. This project’s general focus is the prevention and reduction of water pollution caused from stormwater runoff at construction sites, as required by the Stormwater Phase II Final Rule, Construction Site Runoff Control Minimum Control Measure, and is directly in line with Goal 2 – Clean and Safe Water, of EPA’s Strategic Plan.
3. This pre-proposal is being sent prior to the solicitation closing date and meets all the requirements described in the grant solicitation.

The project meets the Evaluation Criteria by:

- a. The project targets a national priority environmental issue described in EPA’s Strategic Plan, Goal 2 – Clean and Safe Water. The project provides an innovative approach to

continuing implementation of a core national water program (NPDES) and will assist EPA in meeting its Strategic Objective 2.2 Protect Water Quality.

- b. The project will build on our existing knowledge of innovative approaches and expand the testing of priority innovations. This project supports the development of state Environmental Results Programs (ERPs) and extends the development to a new program area – the Rhode Island Pollution Discharge Elimination System program.
- c. The primary measurable outcome of this project will be the percent increase in compliance rates for the use of stormwater runoff BMP controls. Other measurable goals will include the frequency for inspection and maintenance of BMPs, the number of failed stormwater BMPs (# of RTCs), the number of BMPs reported to be in need of repair, and whether or not an inventory of inspection and maintenance activities was created and is regularly maintained.²
- d. The certification check list and other information from this project will be easily transferable to other states and government agencies that implement a stormwater program. Through the use of the web, stakeholder meetings, and participation in regional and national forums, information will be readily transferred.
- e. The budget for this project - *[Budgetary Information Withheld by U.S. EPA]* over three years, is reasonable and consistent with other similar projects for the development of an ERP.
- f. There is a very high likelihood of project success due to the DEM/URI partnership's previous experience and success with other ERP projects. The project will follow a proven technical approach that has led to the development of other sector ERPs.
- g. The project will include a significant public involvement process through the stakeholder process, coordination with the MS4 Stormwater Coordinators, and through the training program that will be made available to both the public and government sectors.

Environmental Outputs – The main project outputs will include a self-certification check list for the use of BMPs to control erosion and sedimentation, a report indicating base line compliance rates, a training program with power point slides, a statistical methodology to measure improvements (or reductions) in compliance with selected EBPIs, reports from stakeholder meetings, and a final report indicating performance of each EBPI from the base line condition, lessons learned and recommendations for further program improvements and implementation.

Environmental Outcomes – Short term environmental outcomes will include a better understanding of the regulatory requirements with the RIPDES General Permit and the Phase II stormwaater requirements. This will be measured by reporting participation in the training program and the stakeholder meetings. An intermediate outcome will be improved compliance with the regulatory requirements. This will be measured using the statistical analysis of the

² EPA – Measurable Goals Guidance for Phase II Small MS4s,
<http://cfpub.epa.gov/npdes/stormwater/measurablegoals/param4.cfm>

compliance rates with the EBPIs. This process will also measure success with the BMP Inspection and Maintenance Measurable Goals for Phase II Small MS4s. A long-term outcome of this project will be an increase in the protection of water quality and will be measured through the number of the State's water bodies meeting water quality criteria.

Public Involvement – The project provides a clear commitment for public involvement through the stake holder process and at the local levels, through the coordination with the MS4 Stormwater Coordinators.

Collaboration and Partnerships – The DEM/URI partnership has a proven record of success for the development and implementation of similar Environmental Results Programs for a number of sectors. This new collaboration with the MS4 Stormwater Coordinators will ensure success of the project's goals by having them involved with the full development and implementation of the program.

Budget Summary (3 years)

State: Rhode Island

Agency: Department of Environmental Management (DEM)
Office of Technical & Customer Assistance

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Project Title: MS4 Construction Site Runoff Control Environmental Results Program:

[Budgetary Information Withheld by U.S. EPA]

Environmental Results Past Performance

PROJECT	EPA SUPPORT	RESULTS
Auto Body Sector Environmental Results Program	No	Training for approximately 20% of the regulated universe; 50% participation rate with the voluntary program; Significant reductions in exposure to auto sanding dust and methylene chloride; statistically significant improved compliance with 24 EBPIs; a paper authored by OTCA staff has been accepted for publication in the <i>American Journal for Public Health</i> .
Underground Storage Tank Environmental Results Program	Yes – approximately <i>[/Budgetary Information Withheld by U.S. EPA]</i> in Contractor Services provided by EPA Region 1	Conducted 6 training sessions with approximately 125 facilities represented (approximately 18% of regulated universe); 91% participation rate with mandatory program; average 74% baseline compliance with 16 selected EBPIs; developed and implementing mobile inspection program using Tablet PCs; Computation of statistically significant improvement rates underway

Exterior Lead Paint Removal Contractor Environmental Results Program	Yes - <i>[/Budgetary Information Withheld by U.S. EPA]</i> Grant from EPA Region 1	Developed industry work book and check list; issued 44 Certificates of Participation; posted informative web site; planning inspection program to measure compliance
Amalgam Separator Environmental Results Program	No	Developed electronic check list with Program Partner (Narragansett Bay Commission) RI.gov : Survey : Survey #47: DEM Dental Amalgam Mercury Recycling Certification Form ; program is underway with approximately 30% of dental facilities participating at this time.
Auto Salvage Yard Sector Environmental Results Program	Yes - <i>[/Budgetary Information Withheld by U.S. EPA]</i> EPA State Innovations Grant	Developed industry work book and check list, completed 35 random baseline inspections, stakeholder meetings being scheduled
State Common Measures Project	Yes - <i>[/Budgetary Information Withheld by U.S. EPA]</i> EPA State Innovations Grant	RI is a full participating state, completed training on statistical analysis using CADMUS tools, selecting sectors, and EBPIs.

Programmatic Capability

Underground Storage Tanks Environmental Results Program

EPA Support: approximately *[/Budgetary Information Withheld by U.S. EPA]* in contractor assistance
 DEM was technically able to successfully manage and carry out the agreement by:

- ✓ Convening a stake holder process with industry representatives to develop a work book based on the federal model and a check list. The check list was substantially organized by the industry stake holder group to meet their needs.
- ✓ Implementing a training program with the assistance of the EPA contractor. DEM and the contractor held six training sessions over a two month period at various locations in Rhode Island.
- ✓ Conducting random and targeted inspections to establish base line conditions and ensure program compliance.
- ✓ Developing and implementing a statistical analysis of check list questions to measure compliance.

DEM met the reporting requirements for this project by producing the work book and check list on time, conducting the stake holder meetings, and implementing the program in a timely manner. Rhode Island is the first state to use ERP in the UST sector.

Auto Salvage Yard Environmental Results Program

EPA Support: *[\$[Budgetary Information Withheld by U.S. EPA] State Innovation Grant*

DEM continues to be technically able to successfully manage and carry out the agreement by:

- ✓ Developing a multi-media work book and check list for compliance with Air, Water, and Waste compliance requirements.
- ✓ Conducting more than 35 base line inspections
- ✓ Completed the internal steering committee process; beginning the stake holder process – the first meeting will be held on January 25, 2007.

DEM is meeting the reporting requirements for this project through the submission of timely quarterly reports. This project is on schedule and has met or exceeded all grant commitments.

Underground Storage Tanks – Alternative Inspection Programs and the U.S. Energy Policy Act of 2005

EPA Support: *[\$[Budgetary Information Withheld by U.S. EPA] State Innovation Grant*

The project period began on January 1, 2007. A kick off meeting was held with project partners on January 5, 2007.

URI has also completed a number of EPA PPIS grant projects.