MEDEP Department of Environmental Protections
Office of Innovation and Assistance
Pre-Proposal for the State Innovation Grants 2007

I. Project Summary

A. PROJECT TITLE: Implementation of a Voluntary Stormwater Environmental Results Program

B. & C. APPLICANT INFORMATION:

Lead Applicant Name: State of MEDEP Department of Environmental Protection (DEP), Office of Innovation and Assistance (OI&A)
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Learning State(s): State of Washington, Region I State and interested states
Project Staff: Michele Underwood

D. FUNDING REQUESTED: *[Budgetary Information Withheld by U.S. EPA]*

E. PROJECT PERIOD: October 1, 2007 – October 1, 2009 (may be adjusted dependent on EPA award date)

F. Summary Statement - Both the State of MEDEP (MEDEP) and Commonwealth of MADEP (MADEP) are embarking on a joint stormwater ERP project targeting heavily developed areas in impaired (or soon to be declared impaired) total Maximum Daily Load (TMDl)-assigned watersheds. MEDEP will take the lead by 1) forming a pilot TMDL Stormwater Implementation Group focusing on Larger Commercial Multi-use Business developments (LCMBs), such as strip malls and older open air malls including "drive-through" establishment high use site and 2) coordinating a group of state partners that will implement different approaches to meet the common water quality goal. MADEP will look at implementing ERP solutions with owner/operators of these LCMBs, whereas MEDEP will develop an ERP targeting drive through which are small footprint sources within larger commercial areas that are considered hot pollutant load sources due to the amount of traffic on impervious surfaces.

G. Statutory Authority and Flexibility-State of MEDEP § 342. Commissioner, duties, 3-A Negotiating Agreements, The Commissioner may negotiate and enter into agreements with federal, state and municipal agencies.

H. State Agency Support- MEDEP DEP supports this proposed Stormwater ERP and will ensure staff assigned to this project will be supported and guided by management.

2. Pre-proposal Project Narrative: Stormwater ERP Implementation MEDEP and MADEP

a. Project Description – i. Summary: Existing developments are contributing to non-attainment of water quality goals. This project focuses on developing an ERP approach to target, engage, and collaborate with specific sub-sectors of this large group that contributes significantly to stormwater pollution. National and state efforts to reduce stormwater pollution depend on specific actions that trigger the imposition of permit requirements. While permits that require new developments and significant redevelopments to provide modern stormwater BMP and stormwater management, those triggers do not affect existing developments. This project focuses on using an ERP approach to target, engage and collaborate with specific industry sub-sectors to reduce stormwater pollution from existing developments. Encouraging the retrofit of modern BMPS and stormwater technologies into existing impervious surfaces will hasten the date when receiving waters meet water quality standards.

Environmental Results Programs (ERPs) already have proven their ability to reduce specific pollutants from specific industries emitted at point sources (e.g., removing mercury from dental practices and removing pollutants from entering storm drains from auto body shops). This grant proposal translates those successes of ERPs to tackle the problem of stormwater pollution from existing developments. By bringing together states taking differing approaches to this problem, providing common metrics to measure effectiveness, and encouraging other states to join as learning partners while the project is implemented, MEDEP and MADEP are "raising the bar" by building a solid stormwater ERP platform which states could replicate and more readily solve storm water pollution issues in a cost effective and practical way. . MEDEP DEP has many areas of impaired watersheds that need additional actions in existing developments in order to improve water quality, protect watersheds and streams and meet TMDL requirements. It is our thought that h utilizing a hotspot analysis, using the proven tool of ERP and linking our efforts with trade associations and franchises will have a positive impact on water quality. There is no other fund or staff available to undertake this project without the aid of the SIG funding.

ii. Specific Problem: The project team will focus on hot spot areas, defined as small impervious/non-absorptive sites with high traffic use and result in highest pollutant load/acre in development/$ft^{3.}$ Research has shown that certain types of businesses (e.g., fast food establishments) inordinately contribute to water quality problems in local receiving waters. Many of the hot spot areas this project will fund and support include areas in Southern MEDEP and in MADEP that have wide geographical and environmental impact. It should be noted that these additional pollution prevention EBPIs, BMPS will provide both direct and indirect benefits to environmental justice areas.

iii. Links to EPA Strategic Goals: This project links to all 5 of EPA's Strategic Goals either directly or indirectly as described: Goal 1 Clean Air and Global climate change; Goal 2 Clean and Safe Water;Goal 3 Land Preservation and Restoration; Goal 4 Healthy Communities and Ecosystems Goal 5 Compliance and Environmental Stewardship as further described in the timelines and milestone, logic model under program guidelines, eligibility and selection criteria section 2b.

iv. Innovative Changes in Management and Regulations: The use ERP and voluntary style programs to yield environmental results has not permeated water programs as it has air programs. Changes will take place in the Department's management and regulatory process to allow for staff to undertake the use of these ERP projects to reduce stormwater pollution. We will meet the Threshold criterion announcement: Criterion 1, Upper management supports and encourages effective means to transfer regulatory and pollution prevention concepts to the

regulatory community. ERP has a proven record of achieving that goal. Our agencies will learn from a new ERP stormwater approach to "fix" our water quality issues specifically targeting impaired streams (or soon to be designated impaired streams) with TMDLs. Our emphasis on transfer of knowledge through MEDEP and MADEP from our complimentary approaches to reducing stormwater pollution from existing developments with large impervious surfaces can be broadly replicated through out the Region as well as nationally. We will post the methods and results electronically as well as host workshops and transfer knowledge to learning states.

v) Demonstrate broad Strategic Innovation: The goal of this project is to decrease stormwater pollution and increase regulatory compliance without having to develop a formal state permitting program. This project demonstrates broad, strategic innovation by decreasing stormwater pollution and increasing regulatory compliance without having to develop and fund a formal state permitting process. as it will implement ERP across an entire sector), infuse existing Stormwater Programs with these new techniques and knowledge, while also increasing results in other medias such as hazardous waste and air pollution. We will also promote innovative approaches to reduce specific stormwater and multi-media pollution from existing impervious areas that are impacting the quality of watersheds, streams. These innovative approaches will also lower the potential of accidental or unknowing toxic/hazardous releases that may accumulate in the environment within a watershed. The overall impact of the project will be to increase compliance and water quality environmental results and reduce pollutants in receiving waters and to encourage state's to use the ERP model more broadly, across the country and across industries. For further aid in conceptualizing work flow of the project please refer to the logic model (p.10)

vi) Milestones and Timelines -The following key process and outcome milestone accomplishment timeline estimates are based on EPA's estimated final award date of October 2007:

Milestones	Begin Timeline	End Timeline
Receive EPA grant funding	October 2007	October 2007
Develop and complete a QAPP including a finalized logic model	October 2007	October 2007
Staff assigned to project begins coordinating with stormwater staff and existing data including TMDL and urban impaired stream	October 2007	October 2007
Coordinate and implement meetings and conference calls with MADEP and Washington	October 2007	October 2007
Identify and begin enlisting owners/operators of Large Commercial Multiuse Businesses	October 2007	November 2007
Train Staff in stormwater BMP and hot spot analysis as well as train in other targeted media issues. This will be an ongoing process throughout the year.	October 2007	October 2007
Develop a Gantt chart detailing flow of work and timelines	October 2007	October 2007
Implement a watershed analysis including developing targeted watershed areas based on hot spot analysis including TMDL data and impaired streams or potentially designated impaired streams	November 2007	November 2007

Work with target groups (MEDEP restaurant association fast food chains and bank branches and MADEP LCMB owner/operators) to begin outreach in ERP project.	November 2007	November 2007
Develop list of ERP candidates' (targeted facilities) through research and development and input into database.	November 2007	November 2007
Convene Stakeholders (Compliance Advisory Panel) Meeting and review process	December 2007	December 2007
Develop Incentives to attract volunteers into ERP. Work with staff and senior management as well as outside agencies including sector associations and chains. Outreach to trade associations and chains.	December 2007	December 2007
Develop 10-20 Environmental Business Practice Indicators (EBPIs) including regulatory indicators Beyond Compliance Indicators, Social marketing incentives such as anti- idling	December 2007	December 2007
Development of stormwater compliance and bmp checklist for certification	January 2008	January 2008
Develop an ERP database to house the indicator data.	January 2008	February 2008
Research and Explore off the shelf technologies (filtration, bioretention, and "biological" technologies) that look at both chemical and biological process that include pollutants common to low impact development/decentralized developments (i.e., not just the listed pollutants, TSS and Phosphorus)	February 2008	March 2008
Conduct a through review of existing stormwater technologies such as bioretention filtration systems utilizing an outside 3rd party such as Iowa Waste Reduction Center to ensure technologies can by themselves or as part of a treatment train at a minimum meet ME's standard of pollutant removal of 65-70% phosphorous and 40% TSS volume control and MA's 80% TSS reduction standard	February 2008	April 2008
Review existing compliance records within the department to avoid inspections at facilities with recent or ongoing compliance issues.	February 2008	April 2008
Design a sampling approach such that we can determine if there are any statistical significant changes in environmental compliance performance as a result of using ERP	February 2008	April 2008
Consult with project states (ME/MA consortium) sampling plan with EPA's ERP contracted statistician dedicated to ERP project work.	February 2008	April 2008
Develop and complete a draft compliance workbook	Feb2008	April 2008
Prior to ERP outreach and education, conduct random inspections/attain baseline compliance data.	May 2008	August 2008

Conduct baseline inspection data analysis.	August 2008	September 2008
Evaluate number and type of stormwater bmp engineered solutions such as tree boxes that should be installed and the relative costs. Including working with partners such as UNH, IWRC and NEWIPC w/in-house staff.	September 2008	November 2008
Conduct on-site workshops in each state's targeted watershed areas to educate regarding ERP workbooks/checklists and distribute workbooks to targeted facilities.	December 2008	February 2009
Recruit volunteer who wish to become environmental leaders and serve as mentors and role models within their sector and implement beyond compliance pollution prevention and stormwater bmp strategies.	February 2009	March 2009
Work with 2-3 environmental leaders to implement the beyond compliance P2 BMPs utilizing partnerships and engineering solutions in each state	April 2009	June 2009
ERP information and Compliance guidebooks made available on MEDEP DEP and MA DEP Web sites for easy access and increased transferability to other States.	April 2009	June 2009
Certification process period for facilities conducted	April 2009	June 2009
Review of self certifications by staff	June 2009	June 2009
Targeted follow-up among participating facilities, based upon certification results	July 2009	August 2009
Follow up random post-certification compliance site visits conducted.	July 2009	August 2009
Recognize facilities who are high performers who implement beyond compliance and pollution prevention practices through Environmental Leader branding	July 2009	August 2009
Tabulate Scores for EBPIs and total compliance per: - Facility (aggregate EBPIs) - Industry (aggregate EBPIs)	August 2009	September 2009
Tabulate accuracy analysis scores for self certification vs. Inspections	August 2009	September 2009
MEDEP, assisted by MADEP, will host at least 2 information exchange meetings for other states, tribes and/ or interested stakeholders to facilitate the transfer of information and innovation including site visits to the environmental leader facilities and demonstrate the pollution prevention and bmp solution including innovative stormwater solutions.	September 2009	October 2009
Explore other grants available through EPA (319 grants etc) and through Association resources that could be used to assist project partners in the installation of some of the BMPs to assist additional facilities who wish to become environmental leaders.	September 2009	October 2009
Conduct 2nd round of environmental certification	September 2009	October 2009

Set-up ongoing support and monitoring of installed BMPs.	September 2009	October 2009
Develop and Complete Case study of ERP project (final report)	September 2009	October 2009

vii) Collaborations and Partnerships: MEDEP DEP lead staff from our Office of Innovation and Assistance has been well trained in ERP (completed an Auto body ERP with experience in planning and meeting deadlines for ERP projects). Success was measured using Microsoft Project to track project and deadlines. Staff was also successfully trained to utilize the EPA and ERP consortium endorsed statistical and graphical ERP data base, Environmental Outcomes Automation Tool (EOAT). MADEP will collaborate with NAIOP and the MA Stormwater Advisory Committee.

viii) The lead staff on this project will be linked with the partnerships of the Office of Innovation and Assistance, which has been recognized both nationally and regionally as being one of the leaders in "beyond compliance" programs including STEP-UP, Performance Track, Pollution Prevention, Toxics Reductions, Innovative Global Warming Reduction programs and Environmental Leader Programs. In addition our Innovation staff are well linked to the our Water Bureau staff and will be able to work seamlessly with staff in order to develop our hot spot priority areas within impaired or soon to be impaired watersheds/TMDL. The IWRC partnership will provide technical assistance and evaluation of stormwater technologies, another proven P2 technology resource leading to further success of the project. MADEP' lead staff on this project has recent stormwater, BMP and experience, a strong record of developing and implementing air pollution reduction programs that depend on close cooperation with private industry, currently coordinates the MA Stormwater Advisory Committee, and has significant outreach and social marketing experience, Given the importance and uniqueness of this innovative project, Given the importance and uniqueness of this innovative project, both MEDEP and MADEP Commissioner has assigned a senior technical advisor to directly assist the MA project lead ensure the project's success. . As noted in this RFP, MADEP is a national leader in developing ERP approaches and supporting software and will bring its considerable ERP experience to this project.

b. Program Guidelines, Eligibility Requirements, and Selection Criteria- This multi-state stormwater project meets each of the guidelines for the specific purposes of this assistance agreement program as follows: We present a framework for environmental innovation consisting of the four major elements to: 1. Strengthen EPA's innovation partnership with states through our multi-state ERP project; 2. Focus on priority environmental issues such as restoring and maintaining water quality through the stormwater BMP work, and potentially reducing the cost of water and wastewater infrastructure by the installation of cost-effective retrofit BMPS; the anti-idling awareness work will link to reducing emissions and potentially smog and or green house gases;3. Diversify environmental protection tools and approaches by increasing stormwater information resources and environmental technology, providing environmental leader branding and regulatory incentives, and implementing results-based goals and measures through the ERP; and 4. Foster more "innovation-friendly" systems and organizational cultures by implementing an ERP model within the agency in a diffuse media: stormwater; the project will lay-out an integrated system of compliance assistance that encourages pollution prevention, self-certification (where permissible, in lieu of permitting), and statistically-based measurement to gauge the performance of the stormwater industry sectors. Our success will be measured by a statistically-based compliance monitoring and enforcement program to help ensure that participating facilities achieve and maintain compliance.

This multi-state approach will show how agencies can reduce pollution from a large number of small sources of stormwater pollution which program staff would not be able to reach in a timely manner due to workload constraints. All applicable regulatory requirements and P2 techniques will be brought together in a compliance assistance workbook that promotes improved environmental performance, is fully linked to performance measurement, and that includes an annual self-certification form. The project will be promoted through the ERP consortium and ERP network, by the ME and MA stormwater programs, and through associations such as NEWIPC.

The scale-ups for this multi-state stormwater ERP include: expanding applications of ERP within and across business sectors; promoting stormwater tools that lower administrative/permitting costs by use of ERPs and measuring results (common metrics) in a priority environmental sector (stormwater) which can be easily replicated and exported to other learning states including sharing of data and environmental results; and continuing to facilitate the growth of a national network of states using ERPs through our project which include learning states and associations such as NEIWPPC as well as our involvement in the ERP Consortium. The ERP linkages will also aid in achieving economies of scale through our multiple state ERP project in a common business sector. due to the transferability and transparency of the project as well as the proven efficiency of using an ERP model.

The statutory authority this project will have indirect and/or direct impact on include the following: Clean Water Act, Section 104 (b) (3) (3 U.S.C. § 1254 (b) (3)]) – authorization to prevent, reduce or eliminate water pollution; Solid Waste Disposal Act, Section 8001 (42 U.S.C. §6981)– authorization to promote resource recovery and resource conservation systems and hazardous waste management systems, including the marketing of recovered resources; and Safe Drinking Water Act, Sections 1442 (a) and (c) (42 U.S.C. § 1(a) and (c)) – authorization to control and prevent of physical impairments of man resulting directly or indirectly from contaminants in water, or to the provision of a dependably safe supply of drinking water.

In addition this proposed project meets each of the Evaluation Criteria and the Qualitative Selection Factors, specifically the national strategic value of the project, environmental justice, and past performance of the state in State Innovation Grant Program funded projects by targeting stormwater pollution which is a National Priority Environmental Issues as well as working with the stormwater sectors targeted in multi-media compliance issues as well including pollution prevention and cutting edge out of the box stormwater technologies and incentives. The ERP model will provide an innovative alternative to permitting which will provide measurable results.

Our project will contribute to achieving many of EPA's Strategic Goals including: 1.Clean air by demonstrating the implementation of anti-idling incentives as one part of the project; 2. Clean and safe water by implementing the stormwater BMPs through the ERP; 3. Potentially effecting preservation and restoration of land by improving the water quality of the watershed thus improving the value and original condition (preservation) of the land; 4. Improving the health of the communities and ecosystems by improving water quality as well as other medias in congested areas that are also designated environmental justice (EJ) areas; 5. Improving compliance rates and stewardship with particular emphasis on water quality but also working on other media compliance issues; and 6. Implement across the strategies by assessing the state of the watershed environments through hotspot analysis and priority evaluations and making the information more accessible through web pages and utilization of an automated ERP database.

MEDEP and MADEP will build on our existing knowledge of innovative approaches, expand the use of priority innovations through our ERP, and by sharing knowledge and solutions with the State of Washington, making the information available through the ERP consortium and

NEIWPCC.

This multi-state ERP is expected to have many cost savings associated with the results of the project. These cost savings are both avoided direct costs (lower pollution means fewer dollars need to be spent to achieve water quality standards) and particularly for MEDEP- the impact on the industries supported by a clean environment. The savings in improving the water quality of streams could be in the order of millions of dollars as MEDEP's largest revenue are from tourism, which includes recreational fishing, boating, hiking and other outdoor recreational sports. With the loss of water quality in our streams and endangerment of our ecosystems within impaired or close to impaired watersheds, MEDEP could lose its appeal to outdoor enthusiasts and eco-vacationers. Further, the estimates of Phosphorus, TSS and VOCs reduced in tons or lbs/year will be quantified using MEDEP's experience and great success in quantifying environmental outcomes gained through our Governors Carbon Challenge, Pollution Prevention Program, Toxics and Hazardous Waste Reduction Program, and Stormwater pollutant load models.

Transferring innovation is an important component of this project. We will share our knowledge and methodologies gained in implementing the stormwater ERP through the ERP consortium, the states involved in the project, EPA's region I, the permitting programs in stormwater, commissions/associations involved such as NEIWPCC and NEWMOA, the private industry associations that participate in the project, and by hosting informational meetings to present the results of the project and share results. We will also make the information about the project, including performance data, available to stakeholders in a form that is both easily accessible and understandable; MEDEP and MADEP will promote organizational and system change by expanding the culture of innovative environmental problem-solving as a normal "way of doing business" within the state agencies and to the state involved n the project and through the consortium. As both lead staff from each state for this project are linked directly to their respective Commissioners, we have management support to make the project a success and the direction to identify potential needs for new applications of this approach as a model for "next generation" environmental protection (e.g., the Element 13 Workgroup and MEDEP's ERP Workgroup focused on establishing and institutionalizing ERP within State agencies) .MEDEP and MADEP plan to participate in national or regional workshops and symposia opportunities to report on the project progress and promote its tools.

c. Environmental Outputs and D. Environmental Outcomes -The environmental outputs and outcomes are discussed in our milestones and timeline table and logic model. Please refer to both for a clear depiction on how the project will be carried out in both a technical and sequential manner.

e. Public Involvement -The multi-state stormwater ERP project states are committed to involving the public as clearly laid out in the milestones and logic model. We will work with our existing public advisory committees and will seek partnerships with interested advocates such as the Charles River Watershed Association, and MEDEP Long Creek stakeholders.

f. Collaborations or Partnerships and 3. Pre-proposal Budget Summary – The following table identifies the proposed partnerships and/ or stakeholder groups that will be involved in the proposed project, each of their roles in the project staffing, and the budgetary estimation for the roles including in-kind or leveraged funding:

[Budgetary Information Withheld by U.S. EPA]

4. Environmental Results Past Performance - MEDEP Department of Environmental Protection (MDEP) was awarded the 2004 State Innovation Grant to conduct an auto body ERP. MEDEP began an Auto Body ERP in October 2004 and will continue the project through March 2007. We focused the ERP on the air quality non-attainment areas in Southern MEDEP (York, Cumberland and Sagadahoc counties). The MEDEP and MADEPs have been awarded pollution prevention grants annually to undertake significant pollution prevention projects that have included source reductions in various business sectors including toxic and hazardous waste reductions, green house gas reductions, and have provided structured incentives through an established environmental leader program.

Programmatic Capability – *[Budgetary Information Withheld by U.S. EPA]*