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RIPDES SMALL MS4 ANNUAL REPORT

GENERAL INFORMATION PAGE

RIPDES PERMIT _____ #RIR040036 _____

REPORTING PERIOD: YEAR 6
Jan 09-Dec 09

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: Acting Chief Civil Engineer	
Legal status (circle one):			
PRI - Private	PUB - Public	BPP - Public/Private	STA - State
FED - Federal			
Other (please specify):			

OWNER OF MS4 (if different from OPERATOR)

Name:			
Mailing Address:			
City:	State:	Zip:	Phone: ()
Contact Person:	Title:		

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 _____

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 storm water pollution. For TMDL affected areas, with storm water 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 – Ongoing

The Natural Resources Unit was responsible for partnering with the URI Cooperative Extension to provide training to State and municipal officials and create a coordinated public outreach message. The target audience consists of State and municipal officials, Watershed groups, residents, and RIDOT personnel. A draft proposal was submitted with RIDOT's Storm Water Management Plan (2004). The RIDOT/DEM/URI Agreement was signed in February 2006. In July of 2009, the URI DOT/DEM agreement was extended for an additional 18 months past the then current March 2010 end date.

As a partner in the program, RIDEM has an original copy of the URI/DOT/DEM Agreement. RIDEM was also provided a copy of the, above mentioned, URI/DOT/DEM Agreement extension.

In Year 6, URI continued to provide printed materials, training workshops, and educational resources addressing pollution prevention topics for priority resources and specific audiences. Templates were created that communities may use directly or adapt to local needs. These have incorporated a consistent message while targeting specific audiences.

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 storm water program. Describe partnerships with governmental and non-governmental agencies used to involve your community.
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BMP ID 1A, B – URI AGREEMENT – Ongoing

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-CE in the contract agreement, and the success towards each. ATTACHMENT A

Additional Measurable Goals and Activities: If the municipality has committed to participate in the URI NEMO storm water public education and outreach program, 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 training:

8/27/2009 Controlling Construction Site Runoff: Are Your Ordinances and Enforceable Policies Making the Grade?

Attending name of staff and title: Emilie Holland RIDOT Senior Environmental Scientist

Attending name of staff and title: Allison (Leblanc) Hamel RIDOT Environmental Scientist (RIDOT Stormwater Coordinator)

RIDOT's Stormwater Coordinator, Allison (Leblanc) Hamel, also presented the "Using SWPPP Templates to Simplify, Standardize and Strengthen Your Program" session for this conference.

Other Trainings:

8/13/2009 Stormwater Education Training: Using the Environscope Model

Attending name of staff and title: Emilie Holland RIDOT Senior Environmental Scientist

7/28/2009 Green Infrastructure Webcast on Green Streets and Operation and Maintenance:

Attending name of staff and title: **see attachment B**

BMP ID 1C – Develop Website – COMPLETED 2006

Please note new address: <http://www.dot.state.ri.us/programs/stormwater>

Updates are completed as needed; minimum quarterly

BMP ID 1D – Publish Newsletter – COMPLETED 2006

BMP ID 1E, 1F – Employee Training – ONGOING:

RIDOT has an existing winter training program for RIDOT personnel. This training includes storm water specific training as an integrated part of other courses. Training includes URI NEMO sessions, RIDOT internal training, and outside training provided through the National Highway Institute, the EPA NPDES program, and other outside agencies.

In addition to attending training sessions, the Natural Resources Unit has also coordinated with many cities and towns regarding the Phase II program

- Coordination re: stormwater issues – Easton's Beach – Town of Newport- RIDOT provided the City of Newport \$250,000.00 toward the funding of the UV disinfection project.
- Coordination re: stormwater issues – Scarborough Beach – DEM, DOH, DOT
- Coordination re: stormwater issues – Kickemuit River & Metacom Ave– Kickemuit River Council, Town of Warren, Town of Bristol
- Coordination re: Northern RI Conservation District/Scituate High School/Providence Water supply Board- stormwater conservation work along Rockland Road in Scituate and along Route 6 in Scituate.

Maintenance 2008/2009 Winter Training: Facility SWPPP:

The Maintenance Division provided training for all facility personnel re: Facility Stormwater Pollution Prevention Plans using the URI Training Workshop materials:

Schedule of Training (**see attachment C for attendees**)

- 3/5/09 Midstate facility, 2400 New London Turnpike, East Greenwich
- 3/10/09 Hope Valley, 51 Bank Street, Hope Valley
- 3/12/09 Belleville Facility, 439 Tower Hill Rd, North Kingstown
- 3/24/09 Lincoln Facility, 680 George Washington Hwy, Lincoln
- 3/26/09 East Providence Facility, 31 Sachem Rd, East Prov
- 3/31/09 Portsmouth Facility, 170 Anthony Road, Portsmouth
- 3/19/09 Gloucester Facility, 648 Putnam Pike, Gloucester
- 4/7/09 Headquarters, 360 Lincoln Ave, Warwick
- 4/14/09 Headquarters, 360 Lincoln Ave, Warwick

Maintenance 2008/2009 Winter Training: VacTruck Training

The Maintenance Division has recently purchased a Vac-Truck for the cleaning and maintenance of catch basins and stormwater treatment Units. Maintenance, in coordination with the Natural Resources Unit, provided training for a select crew of personnel on truck operation, catch basin inspection (for general maintenance, illicit connections, dry weather discharge) and stormwater treatment unit inspection and maintenance.

Schedule of Training:

April 8, 2009.

April 9, 2009

April 24, 2009

Maintenance Training: Storm Water System Maintenance

The Maintenance Division will be providing training for all facility personnel re: stormwater system maintenance in 2009/2010 using the URI Training Workshop materials.



**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.
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BMP ID 2B – Public Involvement – ONGOING

The Natural Resources Unit has developed a partnership with the URI Cooperative Extension to provide a public outreach program. The target audiences of this BMP include the public, State and municipal officials, environmental groups and educational organizations focusing on various pollutant sources. The URI agreement was signed in February 2006. URI has provided an annual report and assessment to RIDOT, which provides the measurable goals set and agreed upon by RIDOT, RIDEM, and URI-CE in the contract agreement, and the success towards each. Workshops began in February 2007 and will continue through 2010.

BMP ID 2A – Adopt-a-Highway Program – ONGOING

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).

Adopt-a-Highway currently has 99 sponsors in the program and 198 miles are cleaned as a result.

The Sponsor-A-Highway Program (SAH) is geared toward businesses and there are currently three companies that the Department does business with, Adopt-A-Highway Maintenance Corporation (AAHMC) and Adopt-A-Highway Litter Removal Service of America, Inc. (AAHLRSA) and Cleanscape, Inc. AAHMC and AAHLRSA are both based out of California and they are active in many states. Cleanscape, Inc. is a company that is based in South Providence and recycles everything collected that can be at their recycling plant in South Providence. Also, they have a mission to hire as many people from the inner-city as is possible. They all 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. **Sponsor-A-Highway has 37 Segments Sponsored (74 Miles Sponsored), out of a total of 111 total segments in the program. Through this program, over 4,500 bags of trash were picked up by the three companies.**

The following is a breakdown of the Sponsor-a-Highway Segments:

Route 4 – total segments 10	5 sponsored	Route 146– total segments 16	0 sponsored
Route 6 – total segments 4	0 sponsored	Route 195 – total segments 4	2 sponsored
Route 10 – total segments 4	1 sponsored	Route 295– total segments 24	5 sponsored
Route 78– total segments 4	3 sponsored	Route 95 – total segments 45	21 sponsored

Additional Measurable Goals and Activities

BMP ID 2C – Prison Crew Cleanups – ONGOING

The Maintenance Division has continued funding prison crew cleanups along RIDOT roadways. In 2009, RIDOT paid over \$510,650 for prison crews and **picked up 52,281 bags of litter.**

BMP ID 2E – Enhancement Program – ONGOING

The projects included in the Enhancement Program are selected and recommended by RIDOT's Transportation Enhancement Advisory Committee (TEAC), which periodically conducts a thorough solicitation, outreach and proposal evaluation process for candidate projects. RIDOT's most recent outreach for projects occurred in late 2004 and early 2005. A balance of 76 Enhancement Program projects remain in the Transportation Improvement Program (TIP), with an allocation of \$8 million for FY 2010 and 2011.

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.

The Statewide Planning program has put together a 2009 TIP – Project Status Report which outlines those projects that received active work in 2009. For the full document, please go to <http://www.planning.state.ri.us/transportation/> and click 2009 TIP –PROJECT STATUS REPORT. See **ATTACHMENT D.**

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

Date of Public Notice: 1 June 10 to 1 July 10	How public was notified: Providence Journal 3 June 10
Was public meeting held? NO	
Date:	Where:
Summary of public comments received: No comments received	
Planned responses or changes to the program:	



**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. Electronic submission of the RIDEM provided Outfall Location EXCEL Tables is required for this 2009 reporting year, if not already submitted or if revised since 2008. Date of Completion:
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BMP ID 3A, 3B – Outfall Mapping & Outfall Database – ONGOING

This measurable goal was not completed by Year 3 and RIDOT will require additional time to map its entire state-wide system. The Natural Resources Unit Summer Interns, supported by the MIS Office, have been inventorying outfalls through plan research and field data collection using GPS. To date, RIDOT has over 3420 outfalls and associated photos in the GIS database. In 2008, the focus was on completing surveys in all of the basins on the easy-access roads. This was a very time consuming process – the focus being on quality of completeness, rather than quantity of outfalls. Easy-access roads are considered to be 100% complete in all of Rhode Island’s drainage basins.

In 2009, the focus was on completing surveys in all of the basins on the remaining easy-access roads and more difficult divided and limited access highways. In 2009, a total of 9 roads, comprised of divided and limited access highways, were fully inspected. 510 outfalls were identified. Only 2 sections of I-95 north and south remain to be mapped: I-95 north of the 295 split and south of the Seekonk River. Approximately 14 miles of I-95 remains to be mapped; RIDOT intends to complete this effort in 2010.

Software issues, the budget crisis, and personnel retirement has prevented RIDOT from upgrading essential GPS software, so the outfalls identified have NOT been uploaded in to the GIS outfall database. The RIDOT MIS Division, in late 2009, was able to upgrade the necessary software to have the data processed. The Data is anticipated to be processed in 2010. Once the database is fully updated, RIDOT will forward electronic submission. RIDOT has previously provided RIDEM (via Paul Jordan on 9/27/07) a full version of the GIS coverage of outfalls that includes 3420 outfalls identified and metadata. Associated photos are available upon written request.

The RIDOT 2007 Revised SWMPP had reported that outfalls on limited-access and divided highways would be mapped by a contractor for the Asset Management Program to be installed in Maintenance. In the Year 4 Annual Report, RIDOT reported that RIDOT will not be moving forward with the Asset Management Program development as originally anticipated due to budget constraints. In Year 5 and 6, the Maintenance Division, the GIS Section, and the Natural Resources Unit (NRU) worked together to map the remaining outfalls in the Summer of 2009. **The 9 remaining roads were completed by September 2009, excluding the aforementioned 14 miles of I-95.** Once the GIS database has been updated, RIDOT will provide the full database to RIDEM.

Divided and limited-access highways inventoried and mapped over the Summer of 2009:

- | | |
|---|---|
| Rt. 1 (Tower Hill Rd. north and Post Rd. west of South County Trail) | Rt. 146 (southbound after Exit 11) |
| Rt. 138 (East of Rt. 1) | Rt. 10 |
| Rt. 6 (east of I-95) | I-99 |
| I-95 | I-295 (south of Hartford Ave.) |

Future work will incorporate the GPSing of new outfalls at final inspections to maintain the database as up-to-date as possible.

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL cont'd

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 2009 calendar year.
N/A – RIDOT is using 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 results of TMDL related requirements and/or investigations. Assess effectiveness of the program minimizing water quality impacts.
<p>BMP ID 3C – Recording of Additional Elements – ONGOING</p> <ul style="list-style-type: none"> As illicit discharges are investigated, additional elements will be 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 (no comments received from RIDEM). The NRU Summer Interns in 2008 started mapping additional drainage system elements as part of TMDL-related requirements. The Portsmouth section of the stormwater system discharging to the Sakonnet River TMDL was identified and inspected. No dry weather discharges were observed during the inspection. Additional system mapping in TMDL areas, in the Summer of 2009 by NRU interns was limited. Due to the work effort required to finish the divided highways only one TMDL area was started. The 2009 NRU Interns started investigation work around Mashapaug Pond, however efforts were limited and inconclusive. Additional system mapping within TMDL areas is anticipated for the Summer of 2010. Catch Basins along major interstate highways and routes have been mapped as part of an MIS project. A surveillance truck drives slowly along a RIDOT road and digital images are taken at specific intervals. A MIS staff member then uses GIS technology, high-resolution aerial photography, and the digital images to complete an electronic inventory of catch basins. This has been done along the major interstates and routes in Rhode Island. Further work is planned as funding and staff time allows. At this time, this is just an inventory of catch basins, however, it is the first step in developing a compliant maintenance program. The NRU has developed an Access database for Catch Basin Inspections to be implemented in the Maintenance Division. 	
IV.B.3.b.4	Indicate if the IDDE ordinance was <u>not</u> developed, adopted and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement. Date of Adoption:
RIDOT does not have regulatory authority to develop and implement ordinances.	
IV.B.3.b.5.ii, iii, iv, & v	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>BMP ID 3D – Develop & Implement IDDE Plan – ONGOING</p> <p>RIDOT developed an IDDE program during 2006 that addresses the SOP requirements under Permit ID# IV.B.3.b.5. The RIDOT IDDE Program was developed using 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 Illicit Discharge Detection and Elimination – A Guidance Manual for Program Development and Technical Assessments (October 2004), and RIDEM IDDE workshop materials (December 2004). The IDDE manual was modified to reflect RIDOT authority and procedures. The Plan has been previously forwarded to RIDEM for review (via email to M. Chatterton and via the 2006 Annual Report). No comments were received. The Plan was finalized in Year 4; training is ongoing (via Winter Training, Storm System Maintenance (URI), and VacTruck Training (Winter 2008/2009)).</p>	
IV.B.3.b.5.vi	Provide summary of implementation of catch basin and manhole inspections for illicit connections and non-storm water discharges. Please indicate if the required measurable goal of inspecting all catch basins and manholes for this purpose was not accomplished reasons why, proposed schedule 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.

Currently, catch basins and manholes are inspected for illicit connections during Outfall Mapping/Surveying/Sampling and during any follow-up IDDE investigation work. RIDEM requires that outfalls be surveyed for Dry Weather Discharges as an indication of illicit connections. Due to the size and complexity of the RIDOT drainage system (estimated at over 25,000 catch basins), RIDOT standard procedures are to inspect catch basins if dry weather discharge (DWD) is visible at the outfall. When DWD is found at the outfall, the discharge flow is sampled (as required by RIPDES) for temperature, pH, conductivity, and fecal coliform. If any of the results are found to be abnormal (RIDOT primarily relies on elevated coliform counts to determine 'abnormal'), further IDDE investigation occurs. The drainage system leading to the outfall is inspected for DWD, obvious 'non-DOT' pipes, and other indications of illicit connections (visual or olfactory cues), as described in the RIDOT IDDE Plan.

Additional inspections of catch basins occur by the RIDOT Maintenance Division. In Year 4, RIDOT stated in the Annual report that the RIDOT Maintenance Division did not have a procedure in place to accurately assess which catch basins, or how many, have been cleaned/inspected/maintained. In Year 5, significant progress was made towards achieving a compliant maintenance program.

The RIDOT Natural Resources Unit created an Access database to track storm system inspections and maintenance. This database has been in use by a consultant for tracking stormwater treatment unit inspections (see **IV.B.5.b.11/BMP ID 5B**). This database was presented, and provided to attendees, at the URI NEMO Training for Storm System Maintenance. **A modified version of this database was implemented Spring 2009 and is being used to track catch basin and manhole inspections and maintenance in the RIDOT Maintenance Division.**

At the end of Year 5, the RIDOT Maintenance has made a capital investment of a Vactor Truck. This unit is capable of cleaning catchbasins, manholes, and stormwater treatment units (such as swirl chambers).

Training has been provided to the Vactor Truck crew in March/April 2009.

Training included:

- Truck operations
- Catch Basin Inspection
- Stormwater Treatment Unit Inspection
- Stormwater Treatment Unit Maintenance
- IDDE training:
 - Dry Weather Discharge Identification
 - Illicit Connection Identification
- Data sheet completion and Database use
- Environmental issues and priority areas

RIDOT Maintenance is anticipating rotating the Vactor Truck throughout the 7 Maintenance Divisions on a regular basis. Road and safety hazards will be addressed first. As time and conditions permit, roadways near environmentally sensitive areas (impaired or TMDL waterbodies, reservoirs, wetlands, etc) will be addressed. **The Maintenance Division implemented the URI training Stormwater System Inspection & Maintenance training in 2009.** This training includes catch basin and manhole inspections for dry weather discharges and illicit connections.

Additional Catch Basin Inspections

The Kickemuit River Council (KRC) applied for a grant in 2007 for the investigation and inspection of town (Warren) and RIDOT catch basins and drainage system on Metacom Ave as part of an illicit discharge detection program (funded through RIDEM). RIDOT has been working with the KRC to provide support since the inception of the program. The field work occurred over the summer of 2008, and in November 2008, the KRC and their consultants released a Phase I Final Report *Kickemuit Storm Drain Investigation, Phase I*. As a funding agency, RIDEM has a copy of the Final Report. **In general, no illicit connections were found.** The KRC has applied for funding for a Phase II investigation that will continue down Metacom Ave in to the town of Bristol. RIDOT Interns assisted KRC for three days in August of 2008. The work included the investigation of the Barker Right of Way (Warren) for identification of outfalls and or source locations of Fecal coli form contamination within the watershed area. In all, 8 locations were sampled, 6 locations revealed MPN levels <100, two locations produced MPN results >100. The sample locations and results were forwarded to the KRC for their use and information in their Phase II investigation.

As part of a construction project a consultant inspected the entire drainage system of Route 146 North and South from Sherman Ave to Route 295. Catch basins, pipes, manholes, outfalls, etc. were inspected and photographed. In general, mostly failed structures were found. It is anticipated that this system will be repaired/replaced in 2009/2010.

IV.B.3.b.5.vii	If dry weather surveys including field screening for non-storm water 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 operator must include a measurable goal of performing a minimum of two surveys, one to be conducted between January 1 st - April 30 th and one between July 1 st - October 31 st by the end of calendar year 2007. The results of the dry weather survey investigations must be submitted to RIDEM electronically, if not already submitted or if revised since 2008, 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. Date of Completion:
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BMP ID 3E – Outfall Surveys

Outfalls have been examined for dry weather discharges during the initial Outfall Mapping (Permit ID# IV.B.3.b.1; BMP ID 3A – Outfall Mapping) that occurred during dry weather conditions during between July and October each year. Outfalls that were determined to have dry weather discharge, or were unknown, will be re-visited, and another dry weather survey conducted. If dry weather discharge is present, the flow will be sampled for pH, conductivity, temperature, and bacteria as described in the RIDOT IDDE Plan.

BMP ID 3F – Outfall Sampling

Due to the size and complexity of the RIDOT storm drainage system, and limited staff, RIDOT has developed a set of Standard Sampling Procedures that has been provided to RIDEM via the RIDOT IDDE Plan.

It has proven difficult to sample outfalls during the January 1st – April 30th window. True dry weather conditions rarely occur in this window due to snow storms, ice storms, rain storms and snow melt. In January 2009 there were only five business days where dry weather conditions existed. However, this potential sampling day count does not take in to account snow melt and/or snow cover. Snow cover makes locating and sampling outfalls a safety concern. Additionally, the Stormwater Coordinator and an additional scientist must both be available for sampling. During January and February, the Stormwater Coordinator is also responsible for writing the RIPDES Annual Report and implementing Winter Training programs for RIDOT personnel. March and April also pose sampling issues, as snow cover, snow melt and April showers make dry weather conditions infrequent.

During the July 1st – October 31st window, dry weather and sampling are more feasible. NRU Interns identify dry weather discharges during outfall identification, and the stormwater coordinator and an additional scientist go out and do the field sampling. Field sampling is a very time consuming process – usually no more than 5 samples may be taken on any particular day due to the state-wide nature of the RIDOT system. However, this sampling is more frequent.

Further Investigation

During October of Year 5, the NRU re-tested dry weather discharges that were previously found to have high (MPN >100) fecal coliform counts. An MPN > 100 count was used to determine the 'priority list' for outfalls for possible investigation. In all, seven (7) outfalls were re-examined for dry weather discharge. Three, including the highest elevated level outfall (MPN ~1200), did not exhibit dry weather flow. Out of the remaining four, three (3) exhibited MPN levels below 100. The last outfall had a fecal coliform count of 230 MPN.

In Year 6, the NRU retested the same seven outfalls on June 2, 2009. Lab results are as follows:

- WOON-368: MPN Result Fecal Coliform: 23
- MOSH0-019: No Dry Weather Discharge
- PAWT-468: MPN Result Fecal Coliform: 23
- PAWT-713: MPN Result Fecal Coliform: 240
- NARR-318: outfall submerged
- WARR-015:: No Sample Taken

The NRU retested the same outfalls on August 24, 2009. Lab results are as follows:

- WARR-015: MPN Result Fecal Coliform: >24,000
- WOON-368: MPN Result Fecal Coliform: 240

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL cont'd

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.
<p>RIDOT NRU also works closely with RIDEM Office of Compliance and Inspection to investigate dry weather discharges and possible illicit connections. RIDOT provides plans and field support when requested by OC&I. In 2008 OC&I and RIDOT began investigating dry weather discharges along Rt 44 on the North Providence/Johnston line. Staffing issues and weather severely impeded the active investigation. The NRU has put together a plan for further investigation. Coordination with the NRU and the Maintenance Division anticipate completing the investigation in 2010.</p>	
IV.B.3.b.8	Provide a description of efforts and actions taken for the referral to RIDEM of non-storm water discharges not authorized in accordance to Part I.B.3 of this permit or another appropriate RIPDES permit, which the operator has deemed appropriate to continue discharging to the MS4, for consideration of an appropriate permit. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.
<p>At this time, RIDOT NRU has not found any non-storm water discharges or illicit connections to refer to RIDEM.</p>	
IV.B.3.b.9	Provide a description of efforts and actions taken for informing inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste as well as allowable non-storm water discharges identified as significant contributors of pollutants. Include a description on how this activity was coordinated with the public education minimum measure and the pollution prevention/good housekeeping minimum measure programs. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.
<p>This permit requirement is covered under the URI NEMO Agreement and RIDOT Winter Training (Please see Minimum Measure 1).</p>	
<p>Additional Measurable Goals and Activities BMP ID 3D – Existing/Future Connections – ONGOING The Design Office oversees the drainage discharges to the RIDOT system accounted for through Physical Alteration Permit Application (PAPA) system drainage. PAPAs are required whenever a party with State-adjacent land wants curbcut access and/or drainage to the State system. The permit does not allow for additional net flow or volume to the RIDOT system. Tie-ins to the system are required to treat storm water. PAPAs from 2002-2006 were reviewed and each connection into the RIDOT system was inspected, GPSed, and documented. A revised policy for PAPA policy/regulation was established in Year 3 (2006) to include geo-referencing of commercial interconnections. New interconnections have been added to the geo-referenced database system (ArcGIS). The PAPA records may be reviewed when an illicit discharge is located to aid in identification of existing contributors. Please see SECTION III.B for data.</p>	

SECTION II.A Other Reporting Requirements - Illicit Discharge Inspections to Date (Part IV.G.2.m)

Total Illicit Discharges Identified: 0	Total Illicit Discharges Tracked: 0
Total Illicit Discharges Eliminated: 0	# of Complaints Received: 0
# of Violations Issued: N/A	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions: N/A	
Extent to which the MS4 system has been mapped: Outfalls: 99% completion for easy-access, standard DOT roadways; 99% divided highway/limited access DOT roadways Catchbasins: 90%-95% completion for divided highway/limited access DOT roadways (via Right-of-Way images)	

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

Interconnection:	Date Found:	Location:	Connectee:	Originating Source:	Planned and Coordinated Efforts and Activities with Connectee:
N/A in 2009					



**MINIMUM CONTROL MEASURE #4:
CONSTRUCTION SITE STORM WATER 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.)

<p>IV.B.4.b.1</p>	<p>Indicate if the Sediment and Erosion Control and Control of Other Wastes at Construction Sites ordinance was <u>not</u> 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>Date of Adoption: RIDOT does not have regulatory authority to develop and adopt Ordinances.</p> <p>However, the current RIDOT Standard Specifications for Road and Bridge Design ('Blue Book') require environmental compliance on construction sites. All RIDOT standard specifications may be found at: http://www.dot.state.ri.us/engineering/standards/index.asp</p> <p>Applicable "Blue Book" standards include (but are not limited to):</p> <p>SECTION 104 SCOPE OF WORK</p> <p>104.15 ENVIRONMENTAL PROTECTION. The Contractor shall comply with all Federal, State, and local laws and regulations controlling pollution of the environment. Pollution of streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, or other harmful materials, and pollution of the atmosphere from particulate and gaseous matter shall be avoided. When work areas or pits are located in or adjacent to live streams, such areas shall be separated from the main stream by a dike or barrier to keep sediment from entering a flowing stream. Care shall be taken during the construction and removal of such barriers to minimize siltation of the stream. Water from aggregate washing or other operations containing sediment shall be treated by filtration, settling basins, or other means sufficient to reduce the sediment content to not more than that of the stream or lake into which it is discharged. Other requirements relating to temporary and permanent erosion and water pollution controls are set forth in SECTIONS 206 through 210, respectively, of these Specifications.</p>
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SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107.01 LAWS TO BE OBSERVED. The Contractor shall keep fully informed of Federal and State laws, local laws, ordinances, and regulations and orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the Project, or which affect the conduct of the Project. The Contractor shall observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the State and its representatives against any claim or liability arising from the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor, the subcontractors, suppliers of materials or services, or others engaged by the Contractor, or the employees of any of them. If any discrepancy or inconsistency is discovered between the Contract and any law, ordinance, regulation, order or decree, the Contractor shall immediately report the same to the Engineer in writing.

The Contractor shall execute and file such documents, statements and affidavits required under applicable Federal or State law or regulation affecting its Proposal, Contract or the prosecution of the work. The Contractor shall permit the examination of any records made subject to such examination by Federal or State law or by regulations promulgated thereunder by any State or Federal agency charged with the enforcement of such law.

107.03 PERMITS, LICENSES AND TAXES. The Contractor shall procure all permits (except those specifically provided in the Contract Documents) and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work. These costs shall be included in the unit prices bid for the various items of the Contract work.

PART 200 - EARTHWORK AND EROSION CONTROL

SECTION 212

MAINTENANCE AND CLEANING OF EROSION AND POLLUTION CONTROLS

212.03 CONSTRUCTION METHODS. Erosion and pollution controls shall be maintained by the Contractor to the satisfaction of the Engineer. Erosion and pollution controls must be able to prevent, under normal weather conditions, both the movement of soil materials and the intrusion of sediment-laden discharges into environmentally sensitive areas. Construction shall not commence or continue until all specified erosion and pollution controls are in place, properly installed and accepted by the Engineer. Erosion and pollution controls shall be routinely inspected by the Engineer. The Engineer shall notify the Contractor immediately if problems develop. The Contractor shall commence cleaning and maintenance measures no later than the next consecutive calendar day after receiving a directive from the Engineer to perform such measures. The Contractor shall aggressively and expeditiously perform such cleaning and maintenance work until the original problem is remedied to the complete satisfaction of the Engineer. In the event of a weekend storm, the Contractor must have the Contractor must have resources available to restore, and, if necessary, to replace any damaged controls.

IV.B.4.b.6	Describe actions taken as a result of receipt and consideration of information submitted by the public.
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RIDOT has established 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 you 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 Year 6 the RIDOT NRU was not informed of any stormwater complaints received

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 Storm Water 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.

Previously, this permit requirement was not applicable to RIDOT. RIDOT signed as both the 'owner' and 'operator' for all RIDOT construction projects. RIDOT has implemented a new policy where the awarded Construction company must now sign as "Operator" in the SWPPP. Any sub-contractor involved in earthwork is also required to sign a signature page acknowledging SWPPP requirements. It is anticipated that this will allow RIDOT and RIDEM to work together to have better contractor compliance on construction projects.

ATTACHMENT E

Additional Measurable Goals and Activities

BMP ID 4A – E, H – J – Review/Revise RIDOT policies – ONGOING

Current Specifications (Rhode Island DOT Standard Specifications for Road and Bridge Construction (i.e. 'Blue Book')) require erosion and sediment controls, proper disposal of waste, and inspections. Revised specifications will provide detailed measures and will provide enforcement mechanisms and repercussions.

Revisions include modifying the standard specification to:

- require the contractor to keep surplus erosion and sediment control materials on-site
- require inspection a minimum of once per week during or immediately after each storm or once per week during periods of dry weather or minor storms
- require weekly BMP inspections
- include a project specific inspection checklist to be developed during design phase, identifying BMPs by station and sensitive areas to be inspected

The Natural Resources Unit requires preparation of SWPPPs for all projects to be included in Construction Documents prepared by the consultant during the design phase. All SWPPPs are reviewed by the NRU. The NRU is has developed a SWPPP template, checklist, and inspection form that all RIDOT consultants are required to use, so that SWPPPs become more standardized, and therefore more enforceable.

The NRU is currently drafting revisions to the Blue Book and drafting new Design Policy Memos (DPMs) to provide stricter guidance on erosion and sediment controls and inspections of BMPs. On an informal basis, these revisions have already been implemented within the design plan and SWPPP review process.

In 2009 RIDOT revised Sections 206, 207 and 212 of the Blue Book. The revisions include the addition of a new **perimeter erosion control(Section 206)** and **new check dam erosion control(Section 207)**. As well as revisions to Maintenance and **Cleaning of erosions controls (Section 212)** to encompass the maintenance of these additional controls. The new erosion controls are Compost Filter Socks, which are comprised of a plastic mesh tube filled with a compost material. Compost filter sock material and compost material shall be in accordance with AASHTO Designation: MP 9-06 (2007 or latest revision). The addition of these erosion and sediment controls allows RIDOT an additional BMP to utilize on our construction sites to control stormwater. Please see **Attachment I**. The revisions to the Blue Book for Sections 206, 207 and 212 will be released when the latest compilation of Blue Book revisions is released. This is anticipated to be released in 2010. Until that time the compost filter sock erosion controls are specified as a Job specific item. Compost filter socks have been specified in several contracts, two of which went to construction in 2009.

The NRU meets with contractors prior to construction commencement to review environmental constraints and permit conditions. RIDOT reviews all applications submitted to RIDEM, CRMC, ACOE and USCG. Inter-Agency coordination meetings are held quarterly, or more frequently as necessary, to discuss and resolve construction-related issues. The NRU is working with the other State Agencies to commit to being present at pre-construction meetings so that any permit questions the contractor has may be answered before construction is started.

The standard specification requires the contractor to control waste and dispose of it properly. The RIDOT Project Engineer will ensure that the construction contractor controls litter on the site.

BMP ID 4F – Inspections – ONGOING

RIDOT Resident Engineers and inspectors are responsible for daily inspection of construction sites. Erosion and Sediment controls, waste disposal, and general site conditions are part of the daily inspection activity.

In Year 6, RIDOT has worked towards a more proactive inspection schedule with more standardized documentation.

RIDOT NRU has developed a small-site SWPPP template (**ATTACHMENT F**) that has been implemented since the Summer of 2009. This small-site SWPPP is for all construction projects under one-acre that do not require a RIPDES-required SWPPP. The small-site SWPPP requires the RIDOT Resident Engineer (or designate) to perform weekly E&S inspections and document them with a standardized inspection form.

We are currently working to assess the feasibility of utilizing a computerized program for SWPPP inspections submission and tracking. However, due to budget constraints and staff limitations, this is still in a preliminary stage.

BMP ID 4G – Erosion and Sedimentation Control Training – ONGOING

The URI-NEMO Agreement provided Erosion and Sediment Control training to RIDOT construction personnel. Please see Minimum Measure 1.

BMP ID 4K, 4L – Waste Control Training - ONGOING

The standard specifications require proper control and disposal of construction site waste. The Resident Engineer is responsible for ensuring these specifications are met onsite. The URI-CE Agreement will provide training to RIDOT personnel.

BMP ID 4M, 4N, 4O – Pre-construction Meetings – ONGOING

The NRU currently meets with contractors prior to construction commencement to review environmental constraints and permit conditions.

SECTION II. A - Plan and SWPPP Reviews during Year 6 (2009) 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.

IV.B.4.b.4: Review 100% of plans and SWPPPs 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 Natural Resources Unit has developed both a large-site (>1-acre) and a small-site (<1-acre) SWPPP Template for the use on all RIDOT construction projects. The large-site SWPPP was implemented in Year 5, and has been utilized for the both the Sakonnet River Bridge project, as well as a site-wide I-195 project, among others. The small-site SWPPP and tracking mechanism is still under development, but is being utilized on some construction projects. **ATTACHMENT E** and **ATTACHMENT F**

The NRU reviews all SWPPPs as part of the design review process. SWPPPs are submitted as part of the Contract Documents that are advertised and subsequently awarded.

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL cont'd

SECTION II.B - Erosion and Sediment Control Inspections during Year 6 (2009) (Part IV.G.2.n) Part 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:
<p>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.</p> <p>RIDOT Construction projects that disturb an area greater than one acre are required to have Storm Water Pollution Prevention Plans (SWPPPs). SWPPPs require erosion and sedimentation control inspections on a weekly basis, and after a storm event. RIDOT hires inspectors to perform SWPPP inspections on RIDOT construction projects.(attachment E)</p> <p>RIDOT Construction projects that disturb an area less than one acre are required to have a Small Site Storm Water Pollution Prevention Plans (SWPPPs). Small Site SWPPPs require erosion and sedimentation control inspections on a weekly basis, and after a storm event. RIDOT Resident Engineers (or designate) perform the inspections on RIDOT construction projects. (attachment F)</p> <p>Final Inspections are conducted on every RIDOT construction project, and are attended by appropriate personnel from the Maintenance, Design, Construction, and Environmental sections. If any drainage work, BMP, or proper stabilization is not correctly installed/established, the contractor is notified and must remedy the issue before Final Acceptance is granted. Final payment is based on this Final Acceptance.</p> <p>Each active construction project with a SWPPP has weekly &/or storm event E&S monitoring.</p> <p>RIDOT works cooperatively with RIDEM & CRMC on E&S compliance issues.</p>	



**MINIMUM CONTROL MEASURE #5:
POST CONSTRUCTION STORM WATER 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 storm water management.

The NRU coordinates regularly with resources agencies such as RIDEM, CRMC, ACOE, EPA, NMFS, USF&WS, Coast Guard, etc. to review projects.

IV.B.5.b.6 Describe actions taken for the referral to RIDEM of new discharges of storm water 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 storm water discharges associated with industrial activity to ensure that facilities will obtain the proper permits).

Not applicable to RIDOT

IV.B.5.b.9 Indicate if the Post-Construction Runoff from New Development and Redevelopment Ordinance was **not** developed, adopted and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement.
Date of Adoption:

Not applicable to RIDOT

IV.B.5.b.12 Describe activities and actions taken to identify existing storm water 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

A storm water BMP (swirl-chambers, treatment ponds, etc) inventory was completed in Year 3.

The NRU has contracted a consultant to inspect, GPS, and provide a maintenance plan for storm water BMPs through the Storm Drain Retrofit Demonstration project. This contract is still underway. As part of this contract, an Access database was developed to record base information for each of the BMPs, along with inspections and photos. A copy is provided on CD within the 2008 Annual Report.

BMP ID 5B – Maintenance and Cleaning – ONGOING

RIDOT had previously reported that long-term O&M of storm water BMPs will be ensured through the Asset Management Program in the Maintenance Division. Due to the current fiscal constraints that the State is in, RIDOT has not moved forward with the Asset Management Program development as originally anticipated.

In Year 5, the RIDOT Maintenance Division purchased a VacTruck for the cleaning and maintenance of catch basins and stormwater treatment Units. Maintenance, in coordination with the Natural Resources Unit, in year 6, provided training for a select crew of personnel on truck operation, catch basin inspection (for general maintenance, illicit connections, dry weather discharge) and stormwater treatment unit inspection and maintenance.

Additional Measurable Goals and Activities

IV.B.5.b.2; BMP ID 5A: Meeting Water Quality Standards – ONGOING

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

IV.B.5.b.4 – Review of plans – ONGOING

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 project design plans to determine if Permits from regulatory agencies (RIDEM, CRMC, ACOE, Coast Guard, etc) are required.

IV.B.5.b.10; BMP ID 5D, 5E - Post-construction inspections – ONGOING

The Finals Section notifies the relevant Offices (Environmental, Design, Construction, and Maintenance) and representative personnel are present at final inspection of construction work. This facilitates understanding of drainage systems, and improves knowledge of system components.

The Construction Section will implement an as-built plan requirement. As-built plans would be prepared based on Resident Engineer's project diary and made available to RIDOT staff, including maintenance through a current plan file management system available on the internal network. As-built plans depict the project as actually constructed. This will facilitate location and mapping of "additional elements" and maintenance.

Any significant changes during construction must be submitted to the NRU for permit compliance verification; if applicable, the NRU submits permit modifications to appropriate regulatory agencies.

SECTION II.A. - Plan and SWPPP Reviews during Year 6 (2009) Part IV.B.5.b.4: Review 100% of post-construction BMPs for the control of storm water 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.

All construction plans and SWPPPs 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.

SECTION II.B. - Post Construction Inspections during Year 6 (2009): 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: 50

of Complaints Received: 0

of Violations Issued: 0

of Unresolved Violations Referred to RIDEM: n/a

Summary of Enforcement Actions:

All 2009 Final Inspections were attended by Design, Construction, and Maintenance personnel. Environmental personnel attended when appropriate. **ATTACHMENT G**

POST CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT
cont'd

SECTION II.C. - Post Construction Inspections during Year 6 (2009): Parts IV.G.2.p and IV.B.5.b.11 Proper Operation and Maintenance of Structural BMPs (Part) 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: 121	# of Complaints Received:0
# of Violations Issued:0	# of Unresolved Violations Referred to RIDEM:0
<p>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</p> <p>The NRU has contracted a consultant to inspect, GPS, and provide a maintenance plan for storm water BMPs through the Storm Drain Retrofit Demonstration Project. This contract is still underway. As part of this contract, an Access database was developed to record base information for each of the BMPs, along with inspections and photos. The Access database is included as <u>ATTACHMENT H</u></p> <p>Once the initial phase of inspections is completed the majority of the BMPs will be cleaned (the remainder are under active construction and will be required to be cleaned before final acceptance). This work is anticipated to be started in Summer 2010. The Access database will be modified by the NRU to include the ability to track Maintenance work.</p> <p>In the future, the RIDOT Maintenance Division and the RIDOT NRU will coordinate future inspections, and maintenance of the stormwater structures, and maintenance of the database.</p>	



**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 all 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. The consultant will locate, GPS, and inspect each unit, develop maintenance SOPs and schedule, and provide a biddable document that RIDOT can use to contract out the cleaning and maintenance of treatment units. This BMP Monitoring contract is Advertising in the Spring of 2010 and will be completed by the Fall of 2010. A copy of the database is attached.

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

RIDOT had previously reported that long-term O&M of storm water BMPs will be ensured through the Asset Management Program in the Maintenance Division. Due to fiscal constraints, RIDOT did not move forward with the Asset Management Program development as originally anticipated.

Once the BMP Monitoring consultant assessment is completed (see previous minimum measure), the majority of BMPs will be cleaned (the remainder are under active construction and will be required to be cleaned before final acceptance). This work is anticipated to be started in Summer 2010 and be completed by Fall 2010. The Access database will be modified by the NRU to include the ability to track maintenance work.

In the future, the RIDOT Maintenance Division and the RIDOT NRU will coordinate future inspections, maintenance of the stormwater structures, and maintenance of the database.

IV.B.6.b.1.iii	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.
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BMP ID 6K, 6L – Annual Catch Basin Cleaning – ONGOING

The Maintenance Division is responsible for cleaning catch basins. Each Maintenance District has different schedules, abilities, and protocols for cleaning catch basins. Catch basins are primarily cleaned through a complaint-driven process and opportunistic maintenance/construction projects.

POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS cont'd

Daily Activity reports currently report the type of work and location of work completed, however these reports are not summarized on a monthly/yearly basis at this time in order to be able to provide an accurate number of basins cleaned per year. RIDOT had previously anticipated the Asset Management Program to track daily work activities – however, it is unlikely that this will realistically occur within the next 5 years.

Although RIDOT was unable to develop a program in Year 5 or 6 to accurately and easily track the 2008/2009 activities, a new VacTruck was purchased and an operations, maintenance, and inspection program will be implemented in Year 7 or 8. An Access Database will be used to track the catch basin cleaning of the VacTruck crew. It is anticipated that the VacTruck will rotate throughout the Maintenance Districts every two-weeks. Until actual work begins, RIDOT is not able to predict how many catch basins will be cleaned by this crew. However, RIDOT will be able to provide the database to RIDEM in the future.

Other catch basin cleaning performed by the Maintenance Division will still occur. It is anticipated that another program will be required to track the daily work activities. Although it is a priority to accurately track daily activity of the Maintenance Division, creating another database is difficult and time-consuming and will likely not be implemented until Year 8.

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 road side shoulders – ONGOING

RIDOT is working with 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 is to help develop a grass seed mix that we can use 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 is funded with research monies from FHWA.

The first round was 2-year study and results were published in 2008. The study was extended, and there are test sites at 3 different locations on RIDOT roadways:

- 1.) Rt 4 exit ramp to Rt 2 (grant ended in June 2009)
- 2.) Rt 95 N in Hopkinton in front of the Visitors Center (grant ended in December 2009)
- 3.) 295 N in Lincoln at State Police weigh station (grant ended in December 2009)

Full results will be provided in the Year 7 Annual Report.

The Natural Resources Unit has also successfully worked on implementing specifications for the use of compost-amended soil on a project-specific basis. As projects are reviewed, either in design or during construction, the NRU recommends products that are potentially better than RIDOT standard practices, such as compost-amended soil, compost filter socks, and straw logs (over the standard hay bale and silt fence).

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**).

IV.B.6.b.1.vi	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.
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BMP ID 6T, 6U – Annual Road Sweeping – ONGOING

The Maintenance Division is responsible for the sweeping of State maintained roadways on an annual basis. 100% of roadways are systematically swept; secondary sweeping (and above) are based upon complaints and general need. The work order program currently in use allows for response to complaints. Currently, RIDOT has insufficient resources to conduct roadway sweeping more than once per year other than as a response to complaint or need.

Road sweeping starts in early March, as weather permits, and is completed by July. The Maintenance Division and the Natural Resources Unit are working together in Year 6 and continued into Year 7 to develop a new system of sweeping, where high-priority will be placed on environmentally sensitive areas to receive more frequent street sweeping. State roads near RIDEM 303(d) and TMDL listed areas will be of the highest environmental priority.

IV.B.6.b.1.vii	Describe activities and actions taken for controls to reduce floatables and other pollutants from the MS4. Evaluate appropriateness and effectiveness of this requirement.
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RIDOT uses prison work crews to pick up litter along highways. In 2009, work crews removed **52,281** bags of garbage from RIDOT roadways. Please see Minimum Measure 2C.

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.
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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)

In addition, RIDOT Standard Specifications ("Blue Book") 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.

**PART 700 – DRAINAGE AND SELECTED UTILITY ACCESSORIES
SECTION 708 – CLEANING AND FLUSHING PIPES AND DRAINAGE STRUCTURES**

708.03 CONSTRUCTION METHODS.

708.03.3 Disposal of Debris Collected. Disposal of all material collected shall be done in accordance with all requirements of applicable State agencies as described below.

a. Sand and/or Gravel. This debris is sand that may be mixed with salt used on streets, roads or highways for winter storm operations or gravels which have entered the storm drainage system.

1. Acceptable Uses. This material must be dry prior to placement.

- (a) Landfill Cover (may require screening).
- (b) Road Base, or any base course applicable that will be covered with an asphalt or concrete layer.
- (c) Backfill for public works construction projects other than areas adjacent to concrete pipes and structures.
- (d) Clean fill, only when analytical testing for Total Petroleum Hydrocarbons (TPH), Toxicity Characteristic Leaching Procedure (TCLP), and Total Lead (TL) have been performed and submitted to RIDEM, Division of Waste Management, for review of reuse application.

2. Unacceptable Uses. As unrestricted clean fill in areas that will expose the debris to human contact such as:

- (a) Fill on residential properties, public parks or playground.
- (b) Fill near pristine waterways, drinking water watersheds, wellhead protection areas, areas with groundwater classified as GAA, and areas within 200 feet of a private drinking water well, or in any other manner that would be inconsistent with State and Federal laws or regulations.

3. Other Debris. All other debris collected from pipes and structures shall be legally disposed of in accordance with all applicable State agencies laws and regulations.

POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS cont'd

<p>IV.B.6.b.4 and IV.B.6.b.5</p>	<p>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 Storm Water Pollution Prevention Plan, and any actions taken to amend the Plan must be kept for record-keeping purposes.</p>
<p>RIDOT Maintenance facilities have Stormwater Pollution Prevention Plans and/or Spill Prevention Plans (as appropriate). URI provided training as part of the Stormwater Outreach Program in Year 5/6. RIDOT Maintenance Facilities are currently undergoing complete employee training of the Facility SWPPP requirements. The Facility SWPPP requires actions (inspections, monitoring, reporting) fulfilling obligations under IV.B.6.b.4 and IV.B.6.b.5.</p>	
<p>IV.B.6.b.6</p>	<p>Describe all employee training programs used to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance for the past calendar year, including staff municipal participation in the URI NEMO storm water public education and outreach program and all in-house training conducted by municipality or other parties. Evaluate appropriateness and effectiveness of this requirement.</p>
<p>BMP ID 6C, 6D, 6E – Employee training As part of the URI-CE Agreement, a storm water training program for RIDOT maintenance personnel was developed. Provided Year 4/Year 5. Implemented winter 2008/2009. Please see Minimum Measure 1.</p>	
<p>IV.B.6.b.7</p>	<p>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.</p>
<p>Not applicable to RIDOT</p>	

Additional Measurable Goals and Activities

BMP ID 6A, 6B – Winter Operations - ONGOING

A Winter Operations Manual is still under development. Training is anticipated to be held in the Fall of Year 6 for all RIDOT Maintenance personnel.

To be included in this Manual are Standard Operating Procedures regarding:

- Snow disposal Policy: site selection, site preparation and maintenance, and emergency snow disposal options
- Inspection and Calibration of equipment Policy and Procedures
- Anti-icing Policy and Procedures
- De-icing Policy and Procedures
- Salt Storage Policy and Procedures
- Salt/Sand Usage Policy
- Low Salt/Special Protection Area Salt/Sand Usage Policy
- New equipment Policy

Currently all of RIDOT winter operations are conducted with a standard 1:1 mix of sand:salt. This is sometimes adjusted to account for the moisture content of the snow/ice as well as the temperatures encountered during each storm. Additionally using FHWA recommended application rates helps to ensure that materials are spread as appropriate as possible. Truck operators are aware of the policies through discussion with their District supervisors as well as the loader operators which create the mix of materials. An anti-icing program is in place. Anti-icing practices include pre-treating roadways with an Anti-Icing solution. This reduces the amount of salt and sand required during the storm event. Anti-Icing equipment is being purchased as replacement of older vehicles. As the vehicle capability increases, so will the anti-icing program.

The RIDOT Maintenance Division is also in the process of evaluating economically and environmentally feasible alternatives to the use of sodium chloride for our de-icing operations, and the current standard operating procedures for winter operations. Given the high expense associated with known alternatives, means to reduce the use of sodium chloride is also being evaluated and tested as part of this effort. This project has just started, but is not yet complete.

The RIDOT Maintenance Division attempted to cover open salt piles for the 2008/2009 season in storage areas that do not have permanent barns or covered salt piles. Tarps were purchased for every open salt pile that RIDOT maintains, and piles were covered prior to the start of the winter weather season. However, with each snow storm, each of the piles had to be uncovered to be utilized by machinery and personnel. During the first storms, three maintenance personnel were injured while uncovering/covering the salt piles. The personal hazards associated with physically climbing a salt pile while tugging a tarp has proven to be exceptionally high. The RIDOT Maintenance Division and the NRU will coordinate over the summer to develop additional BMPs to contain salt melt from the piles. Although covering the piles may not be a feasible alternative, there are structural BMPs such as catch basin inserts, compost filter socks, and other products that may be employed around the salt piles and protecting the inlets and outfalls to minimize the salt water runoff.

In addition to developing new standard operating procedures at all salt-storage facilities, RIDOT Maintenance is also in the process of building new salt storage sheds at a number of facilities. Building infrastructure has a high capital cost associated with it, so as can be expected, it will take several years for RIDOT to be able to become fully compliant and have all salt covered. However, RIDOT is committed to working with RIDEM to establish measurable goals that may be achieved financially, while keeping the environment protected.

In Year 6, RIDOT anticipates building at least 2 structures for salt storage. The Belleville Facility in North Kingstown and the Rt 295/Rt 6 Stock Pile, both have completed structures in place. Dillon's Corner Stockpile is slated for a structure in 2010; Portsmouth Facility in 2012. As designs and plans are finalized, RIDOT will report progress to RIDEM. In addition, several smaller stockpiles have been abandoned altogether – these include Whipple Ave and Warren Ave stock piles.

RIDOT Maintenance is also planning on implementing mandatory training for all State snow-plow vendors. Training is anticipated to occur in Fall 2009 with the aid of the URI Transportation Center, and will provide training on proper application rates, routes, ground-speed, calibration, and environmentally sensitive areas.

POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS cont'd

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

BMP ID:	Location:	Name of BMP Owner/Operator:	Description of BMP:
	Attachment K within 2008 Annual Report		

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:
	The RIDOT Outfall Database will be provided when the Summer 2008/2009 data has been successfully imported			

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).

Each RIDOT construction project is designed and reviewed utilizing the *RI Stormwater Design & Installation Standards Manual* and the *RI Soil Erosion Sediment Control Handbook*. Each project incorporates storm water BMPs to the maximum extent practicable.

Through the Storm Drain Retrofit Demonstration Project, RIDOT is working with RIDEM and a consultant to design BMPs in the Greenwich Bay TMDL area.

SECTION II.D - Please include a summary of results of any other information that has been collected and analyzed. This includes any type of data (Part IV.G.2.e).

N/A



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

SECTION I. If you have been notified that discharges from your MS4 require non-structural or structural storm water 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 storm water identified in the approved TMDL (Part IV.G.2.d). Please indicate rationale for the activities chosen to address the pollutant of concern.

RIDOT primarily relies on the **Storm Drain Retrofit Program** for compliance with TMDL requirements. RIDEM and RIDOT work collaboratively to determine priority areas and outfalls.

To date, the Retrofit program has expended more than \$3.8 million in design and construction of 13 retrofit projects. Four additional projects along the Woonasquatucket River (W2, W6, W23) and Seekonk River (S1) have been designed, and are currently being placed into construction projects in the project areas.

W6 was constructed in the summer and fall of 2009, construction will be completed in the Spring of 2010. Previously, RIDOT anticipated W2, W23, and S1 to be stand-alone construction projects as well. However, the opportunity arose to add them in to larger projects, and the outfalls have been incorporated.

W2 and W23 will be retrofitted within the Providence Viaduct Bridge Project. To be integrated in to the larger project, the current designs will be examined, and may require modification. All appropriate permits will be obtained as part of the Project, and the RIDEM TMDL Program will be notified.

S1 will be designed in to the Pawtucket Bridge 550 Project, and is also subject to redesign. The first phase of the bridge project is anticipated to advertised 2009; the drainage design is in the second phase, and expected to be permitted by end of 2009. The RIDEM TMDL Program will be notified of this, too.

The BMP Monitoring Project is anticipated to be completed in 2010. This project will clean and then assess the effectiveness of stormwater BMP's .

The RIDEM TMDL Program and the NRU coordination meetings are anticipated to resume in 2010 to review preliminary designs for the Greenwich Bay area in Warwick.

Additionally, each construction project is designed and reviewed utilizing the *RI Stormwater Design & Installation Standards Manual* and the *RI Soil Erosion Sediment Control Handbook*. Each project incorporates storm water BMPs to the maximum extent practicable. TMDLs are consulted during the design of new projects to determine if conditions at any priority outfalls may be improved during project construction.



SPECIAL RESOURCE PROTECTION WATERS (SRPWs)

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 Storm Water Program to include the discharges to the aforementioned waters and adapting the Six Minimum Control Measures to include the control of storm water 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.

Due to the size and complexity of the RIDOT storm drainage system, and limited staff, RIDOT in year 5 and 6 has completed outfall mapping for 99% of our statewide stormdrain system, which has over 3,000 outfalls statewide. Software issues, the budget crisis, and personnel retirement has prevented RIDOT from upgrading essential GPS software, so the outfalls identified have not been uploaded in to the GIS outfall database. The RIDOT MIS Division, in late 2009, was able to upgrade the necessary software to have the data processed. The data is anticipated to be processed in 2010. The size and complexity of the RIDOT system and the limited resources available required us to focus on quality of completeness, rather than quantity of outfalls, due to this and the GPS software issues, it has been difficult to analyze all the data in relation to TMDL's and SRPW's on a statewide basis. Once the data has been uploaded into the GIS outfall database, it is anticipated that it will be more easily mapped against its landscape position in relation to TMDL, Impaired Waters and SRPW water bodies on statewide basis. Once GIS outfall database is complete multiple layers can be utilized to identify the parameters of the outfalls location. This will allow RIDOT Environmental staff an efficient tool for reviewing our statewide drainage outfalls against the waters to which they discharge. This will then allow RIDOT to more effectively apply the 6 minimum measures, or those applicable, to all the outfalls discharging within the TMDL, Impaired Waters and SRPW water bodies for construction, post construction and maintenance projects.

Currently RIDOT assesses outfalls and their locations for discharge to Impaired waters (including SRPW's) on an individual basis. This basis is applied to construction projects and their post construction requirements as well as our facilities. This approach allows RIDOT to implement pollution prevention measures and good house keeping methods. New Construction projects are reviewed in order to identify outfalls discharging to impaired waters. These projects are required to address State and Federal Water Quality regulations, which includes assessment for water quality improvements of outfalls discharging to impaired waters. Project design standards require review for compliance with state and federal regulations. This review process and coordination with regulatory agencies (including public involvement for some projects) for project design and permitting ensures that regulations are met. All construction projects are reviewed by RIDOT environmental staff for regulatory requirements. Projects are assessed for water quality issues pertinent during construction as well as post construction. Best management practices for construction projects are incorporated to ensure that the projects control stormwater during construction and improvements are made to maintain and improve water quality post construction. Assessment of a projects location is reviewed for its relation to impaired waters and best management practices are applied, in part based on this.

Post construction efforts include Illicit Discharge Detection and Elimination on an ongoing basis. This is achieved, in part, through RIDOT Maintenance efforts during catchbasin/closed drainage system cleaning. Additional investigation efforts are also carried out by the RIDOT Environmental Office. The RIDOT Vac-Truck crew has received training for this effort, as well as tracking their work within a database. Regardless of outfall location, illicit discharges, when identified, are brought to the attention of the RIDOT Stormwater Coordinator. Efforts identified in Minimum Measure #3, above, are then utilized to identify the source and eliminate it. When any illicit discharges are identified, the discharge point is reviewed for its location in reference to impaired waters. Through good house keeping measures, RIDOT has provided training to Maintenance staff, instituted a tracking and record keeping system for its efforts in maintenance of drainage systems and outfalls, statewide.

The applicable minimum measures are currently implemented, on case by case basis, to RIDOT discharges, both during and post construction. It is anticipated that once the GIS outfall database is operational, that RIDOT will be able to more effectively asses and implement these measures to our complex and statewide system. The database should also allow RIDOT to more effectively coordinate project review and implementation of water quality best management practices into construction, post construction and maintenance activities on a much broader scale.



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Office of Water Resources



INSTRUCTIONS FOR THE RI POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS AND INDUSTRIAL ACTIVITY AT ELIGIBLE FACILITIES OPERATED BY REGULATED SMALL MS4s ANNUAL REPORT FORM

WHO MUST SUBMIT AN ANNUAL REPORT:

Owners/Operators of regulated small municipal separate storm sewer systems (MS4s) and industrial activities authorized to discharge storm water under the Rhode Island Pollutant Discharge Elimination System (RIPDES) Storm Water General Permit for Small Municipal Separate Storm Sewer Systems and Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s, must submit an Annual Report, outlined in Part IV.G of the permit. The Report must be submitted each year after permit issuance by March 10th to track progress of compliance. If you have questions regarding this Annual Report Form contact Margarita Chatterton of the Rhode Island Department of Environmental Management (RIDEM), Office of Water Resources, Permitting Section at (401) 222-4700 ext. 7605.

The Annual Report must be submitted to:

RIDEM
Office of Water Resources
RIPDES Program
Permitting Section
235 Promenade Street
Providence, RI 02908
ATTN: Margarita Chatterton

INSTRUCTIONS FOR COMPLETION:

GENERAL INFORMATION PAGE:

"RIPDES Permit #"

Include your permit ID # to ensure proper tracking.

"Operator of MS4"

Give the legal name of the person, firm, public (municipal) organization, or any other entity that is responsible for day-to-day operations of the MS4 described in this application (RIPDES Rules 3 & 12). Enter the complete address and telephone number of the operator. Circle the appropriate choice to indicate the legal status of the operator of the MS4.

"Owner of MS4"

If the owner is the same as the operator do not complete this section. Give the legal name of the person, firm,

public (municipal) organization, or any other entity that owns the MS4 described in this application (RIPDES Rules 3 & 12). Do not use a colloquial name. Enter the complete address and telephone number of the owner.

"Certification"

State and federal statutes provide for severe penalties for submitting false information on this application form. State and federal regulations require this application to be signed as follows (RIPDES Rule 12);

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information or permit application requirements; and where authority to sign documentation has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor;

For a Municipality, State, Federal or other public site: by either a principal executive officer or ranking elected official.

SECTION I- OVERALL EVALUATION OF BMPS AND MEASURABLE GOALS:

One or more pages, front and back, are provided to report on the status of measurable goals which have been developed to aid in the implementation of strategies, procedures, and programs used to achieve each of the six minimum control measures in Part IV.B of the General Permit. This section provides narrative space for a descriptive explanation and evaluation of the actions taken to satisfy each of the minimum control measures for the 2009 calendar year. Please type or print. If additional space is needed modify as necessary,

please submit attachments to the appropriate minimum control measure following the format provided.

A Permit ID # has been provided, which refers to the part of the permit where you can find a listing or description of the required measurable goal.

Please provide a general summary of actions taken (implementation of BMPs, development of procedures, events, etc.) to meet the measurable goals of the minimum measure. **Be sure to identify parties responsible for achieving each measurable goal** and reference any reliance on another entity for achieving any measurable goal.

Describe whether each measurable goal was completed within the time proposed in the MS4 General Permit or your Storm Water Management Program Plan (SWMP). Why or why not? Provide a progress report and discussion of activities that will be carried out during the next reporting cycle to satisfy the requirements of the minimum measures. If applicable, assess the appropriateness of the actions taken to meet the requirements of the minimum measure. In determining appropriateness, you may want to consider at a minimum the local population targeted, pollution sources addressed, receiving water concerns, integration with local management procedures, and available resources and violations or environmental impacts eliminated or minimized.

Also, discuss the effectiveness of the implementation of BMPs to meet the requirements of the minimum measure and the overall effectiveness of the minimum measure. Describe your progress towards achieving the overall goal of reducing the discharge of pollutants. Please include assessment parameters/indicators used to measure the success of the minimum measure. Also include a discussion of any proposed changes to BMPs or measurable goals.

After evaluation, it may be necessary to make changes or modifications to your Implementation Schedule if the time frame, appropriateness or effectiveness cannot be assured. If so, please include descriptions of changes or modifications, and detailed justification in the appropriate sections.

SECTION II- ADDITIONAL ANNUAL REPORT REQUIREMENTS

Section III refers to additional reporting requirements that the MS4 General Permit is required to submit to the Department as part of the Annual Report. Section II requirements apply to Minimum Control Measures 2 through 6.

Minimum Control Measure #2: Section II:

Specify the date of and how the annual report was public noticed. If a public meeting was needed, provide the date and place. Include a summary of public comments received in the public comment period of the draft annual report and planned responses or changes to the program (new or revised BMP's and measurable goals, partnerships, etc.). Be sure to attach a copy of your public notice (Parts IV.G.2.h and IV.G.2.i).

Minimum Control Measure #3: Section II.A:

Provide the number of illicit discharges identified, complaints received, violations with a summary of enforcement actions, and unresolved violations that have been referred to RIDEM. Include a short narrative describing the extent to which your system has been mapped (Part IV.G.2.m).

Minimum Control Measure #3: Section II.B:

List location, date found, operator of the physically interconnected MS4, and originating source of newly identified physical interconnections with other small MS4s. Also note any planned or coordinated activities with the physically interconnected MS4 (Part IV.G.2.k and IV.G.2.l).

Minimum Control Measures #4 & 5: Section II.A:

Identify the number of construction and post-construction plan and SWPPP reviews completed during Year 6 (2009) and any further information. This includes, but is not limited to a summary of the reviews, responsible parties, and types of projects reviewed.

Minimum Control Measure #4: Section II.B:

Construction inspection information for erosion and sediment control should be submitted annually as stated in Part IV.G.2.n. Provide a summary of the number of site inspections conducted, inspections that have resulted in enforcement actions, violations that have been resolved and of those unresolved, referred to RIDEM.

Minimum Control Measure #5: Section II.B:

Post-construction inspection information for proper installation of post-construction structural BMPs should be submitted annually as stated in Part IV.G.2.o. This should provide a summary of the number of site inspections conducted, inspections that have resulted in enforcement actions, violations that have been resolved and of those unresolved, referred to RIDEM.

Minimum Control Measure #5: Section II.C:

Inspection information for proper operation and maintenance of post-construction structural BMPs should be submitted annually as stated in Part IV.G.2.p. This should provide a summary of the number of site inspections conducted, inspections that have resulted in enforcement actions, violations that have been resolved and of those unresolved, referred to RIDEM.

Minimum Control Measure #6: Section II.A:

As prescribed in Part IV.B.6.b.1.i of the General Permit, the MS4 operator must identify and list the specific location and description of all structural BMPs in the SWMPP at the time of application and update the information in the annual report.

Minimum Control Measure #6: Section II.B:

Part IV.B.6.b.1.v of the Permit states to identify and report annually, as part of the annual report, known discharges causing scouring at outfall pipes or outfalls with excessive sedimentation. Include Outfall ID #, location, description of the problem, any remediation taken, and the ultimate receiving water body.

Minimum Control Measure #6: Section II.C:

As noted in Part IV.G.2.j of the General Permit, specify any planned municipal construction projects or opportunities to include water quality BMPs, low impact development, or seek to promote infiltration and recharge.

Minimum Control Measure #6: 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, including, but not limited to, dry weather survey data (Part IV.G.2.e).

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

Section I:

Complete this section only if your MS4 is subject to an approved TMDL. TMDL requirements may require the implementation of the six minimum control measures to address the pollutants of concern, and/or additional structural storm water controls or measures that are necessary to meet the provisions of the approved TMDL. Be sure to identify the approved TMDL and assess the progress towards meeting the requirements for the control of storm water (Part IV.G.2.d).

Provide a progress report: present status and discussion of activities that have been accomplished or will be carried out during the next reporting cycle to satisfy the requirements of the TMDL. If applicable assess the appropriateness of the BMPs selected under each of the six minimum control measures to meet the requirements of the TMDL. In determining appropriateness you may want to consider, violations or environmental impacts eliminated or minimized.

Please include assessment parameters/indicators that will be used to measure the success of the selected BMPs. Also include a discussion of any proposed changes to BMPs or measurable goals.

SPECIAL RESOURCE PROTECTION WATERS (SRPWs)

Section I:

Complete this section only if your MS4, located outside Urbanized Areas or Densely Populated Areas, discharges to:

a SRPW as listed in Appendix D of the *RIDEM Water Quality Regulations* at this link:

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

an impaired water body including water bodies with no approved TMDL as listed 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>.

In accordance with Rule 31(a)(5)(i)G in the *Regulations for the Rhode Island Pollutant Discharge Elimination System (RIPDES Regulations)*, MS4s were required to incorporate any discharges to these water bodies into their MS4 Program on or after March 10, 2008 unless a waiver has been granted in accordance with Rule 31(g)(5)(iii).

Provide a progress report on the present status and discussion of activities that have been accomplished or will be carried out during the next reporting cycle to incorporate these areas into the MS4's Phase II Storm Water Program.