

Construction Site SWPPPs



Rhode Island Department of

Transportation



How RIDOT is the same... and different

- RIDOT is regulated as an MS4
- Typically signed SWPPPs as both “Owner” and “Operator”
 - Currently changing this procedure
- RIDOT Construction Projects have a RIDOT Resident Engineer and personnel overseeing the Contractor
- RIDOT typically hires the Design Consultant to perform SWPPP Inspections

Large-Site SWPPP

- Required under RIPDES General Permit for Storm Water Discharge Associated with Construction Activity
- In general, required for construction sites disturbing \geq 1-acre of erodible soil

Primary Resources

- EPA's *Developing your Stormwater Pollution Prevention Plan – A Guide for Construction Sites*, May 2007
EPA-833-R-06-004 www.epa.gov/npdes
- State DOTs - CA, VA, NY, AK
- County/City/Towns – DPWs & Planners
- Industry - websites

SWPPP Template

- Cover Page
- Certification
- Table of Contents
- 1: Site Description
- 2: Erosion & Sediment Control BMPs
- 3: Good-Housekeeping BMPs
- 4: Post-Construction BMPs
- 5: Maintenance and Inspections
- 6: Amendments
- 7: Record Keeping
- 8: Party Certifications
- Appendices

CERTIFICATION

- Same as NOI Certification
- Requires "Owner" & "Operator" to sign
- *Who typically creates SWPPPs ???*
- *Is the Certification appropriate ???*

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, 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. I am aware that it is the responsibility of the owner/operator to implement and amend the SWPPP as appropriate in accordance with the requirements of the General Permit.

Owner Signature: _____ Date _____

Insert Name

Insert Title

Rhode Island Department of Transportation

Operator Signature: _____ Date _____

TO BE DETERMINED UPON CONTRACT AWARD

Contractor Representative Name: _____

Contractor Title: _____

Contractor Company Name: _____

Section 1

Site Description

- Project/Site Information
- Nature & Sequence of Activity
- Existing/Proposed Conditions
- Construction Site Estimates
- **Receiving Waters**
- Allowable Non-Storm Water Discharges
- Existing Data of Known Discharges

Site Description

- Endangered Species/Natural Heritage Areas
- Historic Preservation/Cultural Resources
- Site Features and Sensitive Areas
- Potential Sources of Pollution
- Site Plans

Section 2

Erosion & Sedimentation Controls

Vegetative Practices. A description of the vegetative BMPs designed to preserve existing vegetation where attainable and revegetate open areas as soon as practicable after grading or construction. Such practices may include: temporary and permanent seeding, mulching, sod stabilization, vegetative buffer strips and tree protection. The operator should initiate appropriate vegetative practices on all disturbed areas as soon as possible but not more than fourteen (14) days after the construction activity in that area has temporarily or permanently ceased, unless the activity is to resume within twenty one (21) days.

Section 2

Erosion & Sedimentation Controls

- Structural Practices. A description of structural BMPs to divert flows from exposed soils, filter runoff, store flows, or otherwise limit runoff from coming into contact with exposed, unvegetated areas of the site and to prevent sediments and/or other pollutants from leaving the site. Such practices may include: staked hay bales, silt fence, earthen dikes, drainage swales, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rip-rap outlet protection, sediment traps and sediment basins.

Erosion and Sedimentation Controls

- Minimize Disturbed Areas and Protect Natural Features and Soil
- Phase Construction Activity
- Phased Clearing/Grubbing
- Monitoring Weather Conditions
- Initiating Stabilization Practices
- Control Stormwater Flowing Onto and Through the Project

Erosion and Sedimentation Controls

- Stabilize Soils
- Protect Slopes
- Protect Storm Drain Inlets
- Protect Storm Drain Outfalls
- Establish Perimeter Controls and Sediment Barriers
- Retain Sediment On-Site and Control Dewatering Practices

Erosion and Sedimentation Controls

- Construction Site Erosion and Sediment Control BMPs - Table 2.14
 - Utilized as part of the Inspection Forms
 - Should be amended as necessary

Erosion and Sedimentation Controls

LOCATION / STATION	BMP DESCRIPTION & STANDARD SPEC	MAINTENANCE REQUIREMENTS	PHASE
Perimeter	Baled Hay Erosion Checks/Silt fence 206.01.3 / 9.3.0	212.03.1 Sediment accumulated greater than half way up bale; break through or significant strain of barrier	Phase I, II, III, IV
82 + 80, 36' LT	Sandbag Gutter Inlet Sediment Barrier 209.01.1	212.03.1 Sediment accumulated greater than half way up barrier; break through or significant strain of barrier	Phase I, II, III

Section 3

Good Housekeeping BMPs

- The purpose of good housekeeping is to prevent daily construction activities from causing pollution.
- Describe the key good housekeeping and pollution prevention measures that will be implemented to control pollutants in stormwater. Examples BMPs include the proper management of waste, material handling and storage, and equipment/vehicle fueling/washing/maintenance operations.

Good Housekeeping BMPs

- Preventing Off-Site Tracking of Sediment
- Waste Disposal Practices
- Spill Prevention and Control Plan
- Control of Allowable Non-Storm Water Discharges
- Establish Proper Building Material Staging Areas

- Designate Washout Areas
- Establish Proper Equipment/Vehicle Fueling and Maintenance Practices
- Dust Control
- Sweeping

- Construction Site Good Housekeeping BMPs - Table 3.11
 - Utilized as part of the Inspection Forms
 - Should be amended as necessary

Good Housekeeping Controls

LOCATION / STATION	BMP DESCRIPTION & STANDARD SPEC	MAINTENANCE REQUIREMENTS	PHASE
Construction Site Entrance/Exit	Rock/RipRap entrance pad 211.03/9.9.0	Replenish/Replace aggregate if it becomes clogged with sediment and is no longer effectively preventing sediment from being tracked into street	Phase I, II, III, IV
Adjacent Roads	Public roads adjacent to a construction site shall be clean at the end of each day 211.01.1	Street Sweep if construction site sediment is visible	Phase I, II, III, IV
Site Wide	Pick up construction trash and debris	All loose trash and debris must be disposed of properly at the end of each working day	Phase I, II, III, IV

Section 4

Post Construction BMPs

- Provide a description of measures that will be installed during the construction project to control pollutants in storm water discharges that will occur at the site after the construction operations have been completed. Such measures may include: infiltration of runoff on-site, flow attenuation by use of open vegetated swales and natural depressions, vegetated buffer strips, and the use of detention/ retention structures. Where controls are needed to prevent or minimize erosion, velocity dissipation devices shall be placed at all outfall locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to the receiving waters.

Post Construction BMPs

- Post-Construction BMPs
- Low Impact Design Considerations
- Construction Site Post-Construction BMPs - Table 4.3
 - Utilized as part of the Inspection Forms
 - Should be amended as necessary Post-Construction BMPs

Post-Construction BMPs

LOCATION / STATION	BMP DESCRIPTION & STANDARD SPEC	MAINTENANCE REQUIREMENTS	PHASE
77 + 13, 32'RT	Vortechincs Stormwater Swirl Chamber (manuf. Details on Plans)	Cleanout if sediment depth is less than 6" from dry weather water surface elevation	Phase III, IV
99+30	Dewatering Basin	1/2 Depth below outlet elevation	Phase II, III, IV

Section 5

Maintenance and Inspections

- Maintenance
- Inspections
- Corrective Actions
- Long-Term Maintenance

Maintenance

- Maintenance procedures for erosion and sedimentation controls and stormwater management structures/ facilities are described on the plans, in **Section 212** of the RHODE ISLAND DEPARTMENT OF TRANSPORTATION *Standard Specifications for Road and Bridge Construction* 2004 EDITION (and Amendments), and in the Stormwater Management Analysis documentation.
- 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 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.
- Erosion and pollution controls will be cleaned when directed by the Engineer; after a rainstorm; and/or when sediment deposits reach the heights indicated in the table provided in Section 212.03.1 of the RIDOT Standard Specifications.
- Erosion control structures shall remain in place until all disturbed earth has been securely stabilized and accepted by RIDOT. Before final removal, all accumulated sediment on the upstream side shall be removed and legally disposed of. After removal of structures, disturbed areas shall be regraded and stabilized as necessary.
- **Note: The contractor is required to have a full-time, on-site designated contact person responsible for working with the RIDOT Resident Engineer and the RIDOT designated Environmental Compliance Manager (EMC) to resolve SWPPP-related issues.**

Inspections

Minimum Monitoring and Reporting Requirements

All storm water control measures, disturbed areas, areas used for the storage of materials that are exposed to precipitation (including unstabilized soil stockpiles), discharge locations, and locations where vehicles enter or exit the site must be inspected at least once every seven (7) calendar days and within twenty-four (24) hours after any storm event which generates at least 0.25-inches of precipitation per twenty four (24) hour period and/or after a significant amount of runoff or snowmelt. An appropriate rain gauge (as may be found on www.wunderground.com or www.nws.noaa.gov (or similar sites)) must be identified and utilized for the determination of the storm events.

Corrective Actions

If, in the opinion of the Engineer, corrective action is required, the Engineer shall note it on the inspection report and shall notify and direct the Contractor to take corrective action and make all necessary repairs whenever maintenance of the erosion and pollution controls is required.

In accordance with the General Permit and the SWPPP, non-compliance issues shall be addressed no later than seven (7) calendar days from the date of inspection.

In accordance with the SWPPP and Section 212 of the RIDOT Standard Specifications, the Contractor shall commence with the requisite cleaning and maintenance measures no later than the next consecutive calendar day after receiving such a directive from the Engineer, and shall aggressively and expeditiously perform such cleaning and maintenance work until the original problem is remedied to the complete satisfaction of the Engineer.

If the Engineer decides on any given day that those erosion and pollution controls specified in the Contract are not in place or have not been adequately maintained as specified in this Section, the daily charge set forth in **Special Provision Code 212.1000** will be deducted from monies due the Contractor as a charge for failure to comply with this Specification. Moreover, the stated daily charge will continue each consecutive calendar day thereafter until the deficiencies noted have been corrected to the complete satisfaction of the Engineer.

Long-Term Maintenance

Once construction has been completed and has received Final Acceptance, it is the responsibility of RIDOT to inspect and maintain all storm water structures on a regular basis.

At the time of Final Inspection, the RIDOT Highway and Bridge Maintenance Division will appoint an individual who will be responsible for conducting inspections and maintaining records.

The stormwater management system requires regular maintenance to function at its designed constituent removal efficiency. The RIDOT, or subsequent owners, will be responsible for the inspection, maintenance, and repairs to the stormwater management structures on the Site. At a minimum, the following inspection actions are to be taken and inspection reports kept on file by RIDOT:

Long-Term Maintenance of Post-Construction BMPs

Descriptive Location	BMP Description	Inspection Requirement	Maintenance Requirement
Route 999 Southbound; Exit 99 Ramp infield Providence	Vortechnics Stormwater Swirl Chamber (manuf. details on plans)	Quarterly for first two years; as determined by Year 1 & 2 inspections; no less than annually	Cleanout if sediment depth is less than 6" from dry weather water surface elevation
Route 888 Northbound; Onramp to Route 777; Providence	Dewatering Basin	Year 1 & 2: Quarterly Year 3+: as determined by Year 1 & 2 inspections; no less than annually	1/2 Depth Below Outlet Elevation

Section 6

Amendments

This SWPPP is intended to be a working document. It is expected that amendments will be required throughout the construction of the project.

Even if practices are installed on a site according to the approved plan, the site is only in compliance when erosion and sedimentation are effectively controlled throughout the entire site.

The SWPPP shall be amended whenever there is a change in design, construction, operation, maintenance or other procedure which has a significant effect on the potential for the discharge of pollutants, or if the SWPPP proves to be ineffective in achieving its objectives (i.e. the selected BMPs are not effective in controlling erosion or sedimentation).

All revisions must be recorded in the Record of Amendments Log Sheet within the SWPPP, and dated red-line drawings and/or a detailed written description must be appended to the SWPPP. Inspection Forms must be revised to reflect all amendments. Update the Revision Date and the Version # in the footer of the Report to reflect amendments made.

All SWPPP Amendments, except minor non-technical revisions, must be approved by the Resident Engineer.

Section 7

Record Keeping

It is the RIDOT Resident Engineer's responsibility to have the following documents at the Field Office and immediately available for RIDEM review upon request

A copy of the fully signed and dated SWPPP, which includes:

- The signed and certified NOI form or permit application form
- A copy of the RIPDES General Permit
- A copy of any regulatory permits (RIDEM Freshwater Wetlands Permit, CRMC, RIDEM Water Quality, etc)
- Corrective Action Log
- SWPPP Amendment Log
- Copies of all signed and dated Inspection reports

Section 8

Party Certifications

- All parties working for the Rhode Island Department of Transportation are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that is performed on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. Contractors and Sub-Contractors are encouraged to advise all employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the RIDOT Field Office, or may be obtained from the RIDOT Natural Resources Office by calling (401) 222-2023.
- The prime contractor and each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement.

Certification

- ***I acknowledge that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.***
 - RIDOT Resident Engineer
 - RIDOT SWPPP Inspector
 - Contractor SWPPP Contact
 - SubContractor SWPPP Contact

Appendices

- *Attachment A – General Location Map*
- *Attachment B – Site Plans*
- *Attachment C – Copy of RIPDES General Permit*
- *Attachment D – Copy of Regulatory Permits*
- *Attachment E – Copy of RIPDES NOI*
- *Attachment F – Inspection Reports*
- *Attachment G – Corrective Action Log*
- *Attachment H – Amendments Log*
- *Attachment I – Post-Constr BMP Inspection Forms*
- *Attachment J – Post-Constr BMP Inspection Log*
- *Attachment K – Additional Information*

Small-Site SWPPP Template

- For construction projects having less than one acre of soil disturbance
- NOT required by RIPDES General Permits
- Can be required via Storm Water Management Program Plan or Local Ordinance

