Construction Site Stormwater Compliance Assistance Program

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Department of Civil and Environmental Engineering, URI
Compliance Assistant Program

• Objective
• Current situation
• Motivation
• Compliance Assistance Program introduction
• Implications of non-compliance
• Self-Certification checklist
• Wrap up
• Open forum
Compliance Assistant Program

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Objective

The RIDOT Compliance Assistance Program (CAP) seeks to increase the environmental compliance in RIDOT construction sites, through the optimal use of human and material resources.
Compliance Assistant Program

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CAP Development

RIDOT Natural Resources Unit

URI Department of Civil and Environmental Engineering

RIDEM Office of Water Resources

RIDOT MS4 Project

NEMO Program

RIDOT Compliance Assistance Program (CAP)
Phases of RIDOT CAP

• **Phase 1 (Spring 2013 - Present)**
  - Coordination with other agencies
  - Gathering information
  - Baseline construction site inspections

• **Phase 2 (Winter - Spring 2015)**
  - Compliance Assistance Program (CAP)
  - RIDOT training

• **Phase 3 (Summer - Fall 2015)**
  - Evaluation of trainings impact on compliance
Initial RIDOT Inspections

• Site Selection
  - Greater than 1 acre
  - SESC (SWPP) plan in contract
  - Construction end date

• Sites Analyzed
  - Total = 12

• Periodically adding sites
Results of EPA Checklist

• Minimum fine: $2,050
• Maximum fine: $60,550
• Total RIDOT fine: $175,350
Results From Self-Certification Checklist

• Ranking of Compliance Results
  ➢ Doing well (87% - 100%)
  ➢ Doing “Ok” (74% - 86%)
  ➢ Doing poorly (0% - 73%)

• Compliance Categories
  ➢ Documentation kept on site
  ➢ Proper documentation
  ➢ Procedures
  ➢ Prohibited discharges
  ➢ Best management practices
Compliance Categories

• Documentation kept on site
  ➢ SESC Plan, Permits, etc.
• Proper documentation
  ➢ Corrective actions, signatures, etc.
• Procedures
  ➢ Permit requirements, inspections, etc.
• Prohibited discharges
  ➢ Concrete washout, fuels, oils, etc.
• Best management practices
  ➢ Erosion controls, maintenance, etc.
Overall RIDOT Construction Site Compliance

Compliance Categories

- Documentation On Site (5Q)
- Proper Documentation (14Q)
- Procedures (19Q)
- Prohibited Discharges (7Q)
- BMPs (25Q)

Percentage per category

- Doing Well
- Doing "Ok"
- Doing Poorly
What RIDOT is Doing Poorly

Concrete Wastewater Washout Not Being Managed Properly on Multiple Sites
What RIDOT is **Doing Poorly**

**Sediment Not Being Managed Properly On Many Sites**
What RIDOT is **Doing Poorly**

Common Issues Found on Many Sites

- Controls Surrounding Stockpiles
- Properly Manage and Dispose of Waste
- Maintenance of Inlet Protection
- Properly Designed Entrances and Exits
Compliance Assistant Program

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Motivation

• It is the Law!

➢ Clean Water Act
Clean Water Act 1972
Clean Water Act Amendment 1987

• New source of pollution:
  - URBANIZATION
  - Stormwater Runoff
Stormwater Runoff

Sediment Contamination

• Sediments are the single most widespread pollutant affecting the water quality in rivers and streams *

• Physical, chemical, and biological damage from erosion and sedimentation in North America may exceed $16 billion annually **


Construction Sites and Sediments

What is the contributions of constructions site in term of sediment contamination?
Construction Sites and Sediments

Construction activities are responsible for 50 to 90% of sediment entering surface waters* , **


Soil Erosion Numbers

Typical erosion rates for land-based activities
(soil loss from various land areas, in tons per acre per year)

Bare Soil
(e.g., unmanaged construction sites)
\(~35–45\)

Forest Land
<1
Farm Land (active pasture)
\(~1\)
Farm Land (row crop)
\(~4.7\)

Construction Sites and Pollution

Pollutants associated with construction activities:

- Sediment
- Pesticides
- Fertilizers used for vegetative stabilization
- Petrochemicals
  - Oils, gasoline, and asphalt degreasers
- Construction chemicals and their wastewater
  - Concrete products, sealers, and paints
- Paper
- Wood
- Garbage
- Sanitary waste
Pollutants Impacts: Sediment

• On-site
  ➢ Losses of nutrients and nutrient-holding capacity
  ➢ Reduction the available water-holding capacity on-site
  ➢ Reduction of soil’s natural organism ability to combat outbreaks of pests and diseases

• Off-site
  ➢ Reduction of water quality by excess of nutrients and turbidity
  ➢ Increase build up in channels, reduction flow capacity, resulting in more flooding
  ➢ Reduction of reservoirs capacity
Pollutants Impacts: Construction Chemicals

- Paints
- Acids for cleaning masonry surfaces
- Cleaning solvents
- Asphalt products
- Soil additives used for stabilization
- Concrete-curing compounds
- Wastewater from concrete mixers
- Acid and alkaline solutions from exposed soil or rock
- Alkaline-forming natural elements
Pollutants Impacts: Concrete Washout

- Slurry containing toxic metals.
  - Aluminum, Barium, Chromium, Hexavalent Chromium (Chromium 6), Copper, Iron, Magnesium, Manganese, Nickel, Potassium, Selenium, Sodium, Vanadium, and Zinc. The wastewater may also contain trace elements of petroleum products, admixtures and other materials from processing or treating the material.

- Caustic and corrosive, with a pH near 12
- Can harm fish gills, eyes, and reproduction
- Inhibit plant growth and contaminate the groundwater
Compliance Assistant Program

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Compliance Assistance Program

• First stage of the program
  ➢ Resident Engineers

• Next stage of the program
  ➢ Inspectors
  ➢ Contractors
What Are the Benefits?

• Preventive rather than restorative
• More efficient and expedite work
• Improve relationship with regulatory agencies
• Improve compliance and eliminate violations
• Enhance credibility with external stakeholders
• Cost saving
• Economic Incentives, Including Reduced Liability
Compliance Assistance Program

Help RIDOT construction sites stay compliant

- Existing resources
  - Stormwater compliance workbook
  - SESC Handbook
- New resources
  - CAP training
  - Self-Certification checklists
- Pre and Post assessment
Construction Site Stormwater Compliance Workbook

• Enables the owner to:
  ➢ Self-certify site to RIDEM standards
  ➢ Comply with Freshwater Wetland (FWW) Permit
  ➢ Comply with RIPDES Construction Stormwater General Permit (CGP)
RIDEM Soil Erosion and Sediment Control (SESC) Handbook

• Resource for:
  - Navigating the Self-Certification Checklists
  - Clarifying Soil Erosion and Sediment Control procedures and standards
Compliance Certification Checklists

• **Start of Construction Stormwater Checklist (Sub. 1)**
  - FWW Permit and RIPDES Permit compliance questions
  - Ensures appropriate controls and administrative procedures are in place at the start of site disturbance activities

• **Completion of Construction Stormwater Checklist (Sub. 2)**
  - FWW Permit and RIPDES Permit compliance questions
  - Ensures project is completed properly
How the Program Works

Stormwater Compliance Assistance Program

- Soil, erosion, sediment control handbook
- Stormwater Compliance Workbook

Self-Certification Checklist (Sub. 1)
Self-Certification Checklist (Sub. 2)
Training

= More efficient RIDOT weekly inspections
Compliance Assistant Program

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Self-Certification Checklists

• What we will be covering:
  ➢ Roles and responsibilities
  ➢ Who should fill out the checklists
  ➢ Break into groups
  ➢ Fill out the checklist

• Significant portion of presentation
  ➢ Take a break
Roles and Responsibilities

- **Owner** - responsible for making sure the site is in compliance
- **Inspector** - responsible for reporting and recording all non-compliance issues
- **Operator** - responsible for resolving non-compliance issues

Sure glad the hole isn’t at our end.
Responsibility Structure

• Lots of overlap in responsibilities
• Team effort, must work together
• Represented on the upper corner of each slide
Who Should Fill Out Checklists?

• Individual filling out checklist must know:
  ➢ Terms of FWW Permit
  ➢ Terms of RIPDES GP
  ➢ The construction site
  ➢ The site-specific SESC Plan
  ➢ Responsibilities of RE and operator(s)
Break Into Groups

- Groups of three
- Decide who will play which role
  - Owner
  - Operator
  - Inspector
- Work together!
Time to Fill Out the Checklist

Using construction site exercise photos and the “Site Information” provided

1. Fill out section in blue pen
2. Presentation of section
3. Make corrections in red pen
4. Results for section will be provided
5. Feedback on section

YOUR FEEDBACK MATTERS
Overall RIDOT Construction Site Compliance

Compliance Categories

- Documentation On Site (5Q)
- Proper Documentation (14Q)
- Procedures (19Q)
- Prohibited Discharges (7Q)
- BMPs (25Q)

Percentage per category:

- Doing Well
- Doing "Ok"
- Doing Poorly

RIDOT Current Compliance Percentages
Start of Construction Stormwater Self-Certification Checklist (Submittal 1)

**MUST** be submitted to the RIDOT Natural Resources Unit within 30 days of initiating soil disturbance activities
# Project Information

| Site Name: |  |
| Site Address: |  |

### Environmental Permits

<table>
<thead>
<tr>
<th>Permit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes</td>
<td>RIPDES CGP (construction)</td>
</tr>
<tr>
<td>☐ Yes</td>
<td>RIPDES RGP (dewatering)</td>
</tr>
<tr>
<td>☐ Yes</td>
<td>Freshwater Wetlands</td>
</tr>
<tr>
<td>☐ Yes</td>
<td>Water Quality Certificate</td>
</tr>
<tr>
<td>☐ Yes</td>
<td>CRMC Assent</td>
</tr>
<tr>
<td>☐ Yes</td>
<td>Army Corps</td>
</tr>
<tr>
<td>☐ Yes</td>
<td>Other (indicate type below)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site Owner</th>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
</table>

| Mailing Address |  |

<table>
<thead>
<tr>
<th>Site Operator</th>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
</table>

| Mailing Address |  |

## Inspection Information

<table>
<thead>
<tr>
<th>Site Inspector</th>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Inspection Date</th>
<th>Start/End Time</th>
</tr>
</thead>
</table>

| Date Site Disturbance Activities Commenced |  |
Let's Fill Out Section A
Section A

DEM Freshwater Wetlands Permit Conditions
(A1) Freshwater Wetlands (FWW) Permit Applicable?

• It is applicable if your project is within:
  ➢ 50 feet of swamps, marshes, bogs, and ponds
  ➢ 100-200 feet of rivers and streams
If it is applicable, you must fill out Section A of the Self-Certification Checklist. If N/A, move on to Section B.
(A2) Notify RIDEM

1. Get site plans approved by RIDEM
2. Obtain applicable RIDEM permits
3. Notify RIDEM about start of construction before any site alteration
(A3) FWW Required Documents

• The following must be kept on site:
  ➢ Copy of FWW Permit
  ➢ Copy of stamped approved Site Plans
(A3-i) Notify the City or Town

- If required by the FWW Permit:
  - Submit a copy of the FWW Permit to the Land Evidence Records of the appropriate city or town
  - Must be done within 10 days of receiving the FWW Permit
(A4) RIDEM Permit Signs

• All RIDEM permits must be posted on site including:
  - Bolded initials “DEM”
  - Name of permit
  - Specific permit number

• The sign should be:
  - At least 12 inches wide and 18 inches long
  - Water resistant

DEM
FWW Permit
12-3542

DEM
RIPDES Permit
RIR100364
(A5) Off Site Fill Materials

• Indicate if the project will use fill materials from off site

• If N/A, move on to Question A10
(A5-i) Off Site Fill Materials

- Off site fill material must be inspected to insure that it is clean and free of any pollutants or contaminate.
- If the fill is material is not clean, then it cannot be used on site.
(A10) FFW Permit Compliance

• Compliance terms are:
  ➢ Must stay within LOD detailed on the approved Site Plans
  ➢ Must notify RIDEM prior to construction and upon completion of the project
  ➢ Must keep copy of stamped approved Site Plans and the FFW permit on site

FFW Permit

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5673
TDD 401-222-4462

March 18, 2013
RI Department of Transportation
Peter Healy, P.E., Chief CIV Engineer
Twin Capitol Hill, Room 224
Providence, RI 02903-1124

Dear Mr. Healy:

Kindly be advised that the Department of Environmental Management’s (“DEM”) Freshwater Wetlands Program (“Program”) has completed its review of your Request for Preliminary Determination application. This review included a site inspection of the above referenced property (“subject property”) and an evaluation of the proposed Kent Dam Spillway Bridge rehabilitation, IR improvements to Route 12, pavement removal for water quality requirements and associated landscaping as illustrated and detailed on the plans submitted with your application. The most recently revised site plans were received on March 4, 2013.

Our observations of the subject property, review of the site plans and evaluation of the proposed project reveals that alterations of freshwater wetlands are proposed. However, pursuant to Rule 5.06 of the Rules and Regulations Governing the Administration and Enforcement of the Fresh Water Wetlands Act (Rules), this project may be permitted as an insignificant alteration to freshwater wetlands under the following terms and conditions:

Terms and Conditions for Application No. 12-0198 / RIR-1000099:

1. This letter is the DEM’s permit for this project under the R.I. Fresh Water Wetlands Act, Rhode Island General Laws (RIGL) Section 4-1-18 (E).
2. This permit is specifically limited to the project, site alterations and limits of disturbance as detailed on the site plans submitted with your application and has been issued by the DEM on March 3, 2013. A copy of the site plans approved by the DEM is enclosed. Changes or revisions to the project which would alter freshwater wetlands are not authorized without a permit from the DEM.
3. Where the terms and conditions of the permit conflict with the approved site plans, these terms and conditions shall be deemed to supersede the site plans.
4. You must notify this Program in writing immediately prior to the commencement of site alterations and upon completion of the project.

FFW Permit

Office of Water Resources/401-232-6786/FAX: 401-232-1356
(A10) FFW Permit Compliance (cont.)

- Any fill material used in this project must be clean and free of all pollutants
- Prior to commencement of site alterations, RIDEM FFW Permit sign must be posted
- Erosion controls must be properly installed before the commencement of site alterations and maintained for the life of the project
- Upon permanent stabilization all erosion controls must be removed
Section A Answer Key

• A1 – Yes
• A2 – No
• A3 – Yes
• A3-i – Yes
• A4 – Yes
• A5 – Yes
• A5-i – Yes
• A10 - No
Feedback for Section A

I WANT YOU

FOR FEEDBACK!

60
Let's Fill Out Section B
Section B

Erosion, Runoff, and Sediment Control Conditions
(B1) Control Measure Installation

- These are specified in the RISESC Handbook
- Must be done prior to earth disturbing activities
(B2-i) Limits of Disturbance

• LOD must protect environmental resources and sensitive receptors

LOD protecting a wetland (sensitive receptor)  LOD protecting trees (environmental resource)
(B2-ii) Limits of Disturbance

• LOD must protect planned infiltration areas and pervious areas

LOD protecting a pervious area
(B2-iii) Limits of Disturbance

• LOD on site must be in accordance with LOD detailed on RIDEM approved Site Plans
(B2-iv) Limits of Disturbance

• **NO** activity is to occur beyond approved LOD
(B3) Stormwater Flow Management

- Controls that deviate, retain, and detain flows must be properly installed and maintained

Check Dam

Sediment Basin
(B4) Temporary Conveyances

• All temporary conveyances must be installed and functioning properly

Temporary Channel
**(B4-i) Temporary Conveyances**

- Must be maintained for proper function
Soil Stabilization

- All exposed soils must be seeded by October 15th.
- This can be done through:
  - Temporary or permanent seeding
  - Mulching
  - Erosion control blankets

Hydro-seeding

Erosion Control Blanket
(B6) Soil Stabilization

- If construction on any section of the site is inactive for 14 days, soils here must be stabilized immediately.
(B7) Soil Stabilization

- If soil stabilization was not achieved by November 15th
- Erosion controls must be in place

Erosion Controls Surrounding Unstabilized Soils
(B8) Soil Stabilization

• If construction is active from October 15th to April 15th

• Only the day’s work area can be exposed and all soils must be stabilized within 5 days
(B9) Storm Drain Inlet Protection

• All storm drain inlet protection measures must be properly installed

• These include:
  ➢ Fabric drop inlet protection
  ➢ Curb drop inlet protection
  ➢ And More

Fabric Drop Protection (Silt Sack)

Hay Bail/ Silt Fence Protection
(B10) Storm Drain Inlet Protection

- All storm drain inlet protection measures must be properly maintained and cleaned

GOOD Example:

Well maintained sediment sacks

BAD Example:

Sediment sack is broken and ineffective
(B11) Storm Drain Inlet Protection

- Accumulated sediment adjacent to storm drains must be cleaned up within the same work day in which it occurred

GOOD Example:

BAD Example:

Roadway is clear of sediment

Roadway is covered in sediment
(B12) Outlet Protection

• All outlet protection measures must be installed at all temporary and permanent discharge points

• These include:
  - Riprap-lined apron
  - Level spreader
  - Turf reinforcement mats
(B13) Purpose of Outlet Protection

• Outlet protection measures must be functioning properly in order to:
  ➢ Reduce discharge velocity
  ➢ Promote infiltration
  ➢ Eliminate scour
(B14) Inspection of Outlet Protection

- Outlet protection must be inspected to ensure:
  - Prevention of scour and erosion
  - Maintenance is occurring
(B15) Perimeter Sediment Controls

• Sediment controls must be implemented along areas of the perimeter that will receive stormwater

Compost Filter Sock

Hay Bails/ Silt Fence
(B16) Perimeter Sediment Controls

• Must be maintained in accordance with the RISESC Handbook standards

GOOD Example:
Perimeter compost filter sock in place

BAD Example:
Compost filter sock has been overtaken by sediment
Protection of Post Construction Stormwater Practices

• Temporary erosion controls must be installed around permanent infiltration areas

GOOD Example:
Steep Slope from Active Construction Area Down to a Pond Surrounded by Hay Bails

BAD Example:
Broken Compost Filter Sock/ Sediment in a Wetlands Area
Protection of Post Construction Stormwater Practices

- Material staging areas and access roads must avoid permanent infiltration areas

GOOD Example:
Access Road and Staging Area Located Far from Any Infiltration Areas

BAD Example:
Access Road to Staging Area Directly Impacting a Catch Basin
(B19) Surface Outlets

• A surface outlet structure must be installed in each temporary sediment basin

• These include:
  ➢ Skimmers
  ➢ Floating pumps
  ➢ Siphons
(B20) Surface Outlets

- All temporary sediment basins and traps must be inspected and maintained

Adequately Maintained Temporary Sediment Trap (Check Dam)
(B21) Treatment Chemical Use

- Indicate if treatment chemicals will be used to control erosion, sedimentation, or runoff
- If N/A, move on to Section C
(B22) Treatment Chemical Use

- Treatment chemicals used on site must be in compliance with:
  - Current Best Management Practices (BMPs)
  - RISESC Handbook Appendix J
Section B Answer Key

- B1 – No
- B2-i – Yes
- B2-ii – No
- B2-iii – No
- B2-iv – No
- B3 – No
- B4 – Yes
- B4i – No
- B5 – Yes
- B6 – No
- B7 – Yes
- B8 – N/A
- B9 – Yes
- B10 – No
- B11 – No
- B12 – Yes
- B13 – No
- B14 – Yes
- B15 – Yes
- B16 – No
- B17 – Yes
- B18 – Yes
- B19 – Yes
- B20 – No
- B21 – N/A
- B22 – N/A
Feedback for Section B
Time for a BREAK
Let's Fill Out Section C
Section C

Pollution Prevention
(C1-i) Contaminated Groundwater

• Contaminated groundwater must be pumped into a dewatering basin to properly clean the water
(C1-ii) Concrete Washout Wastewater

• Concrete washout must be properly contained in a poly-sheet box and disposed of off site

GOOD Example:

Concrete washout in a contained poly-sheeted box

BAD Example:

Uncontained concrete washout on the side of the road
(C1-iii) Other Washout Wastewater

- All debris and washout from construction products (stucco, paint, curing compounds, etc.) must be properly contained and disposed of off site.
(C1-iv) Vehicle and Equipment Pollutants

• Fuels, oils, etc. must be carefully maintained and properly disposed of

GOOD Example:

Use of an emergency spill kit

BAD Example:

Oil from a construction vehicle left untreated
(C1-v) Soaps and Solvents

• Equipment washing must be done in a designated area surrounded by controls
• If not possible, washing should be done off site

GOOD Example:

Washing off site in a contained area

BAD Example:

Washing in the middle of the site
Toxic and Hazardous Substances

- Toxic and hazardous substances must be carefully maintained and properly disposed of.

GOOD Example:

Containers are properly stored and labeled with appropriate warnings.

BAD Example:

Containers are in horrible condition and are not labeled.
(C2) Off Site Tracking of Sediment

- Vehicle use should be restricted to properly designated access points

GOOD Example:

Properly designed access point off a secluded road

BAD Example:

Unauthorized access point off a highway exit ramp
(C3) Off Site Tracking of Sediment

- Access points should be properly designed to remove sediment from tires prior to exiting.

GOOD Example:

Large area of crushed stone padding leading to a paved road.

BAD Example:

No type of controls used to remove sediment before exit.
(C4) Off Site Tracking of Sediment

• Are additional controls used at access points?
• These include:
  ➢ Wheel washing racks
  ➢ Rattle plates
  ➢ Crushed stone padding

Rattle Plate
(C5) Off Site Tracking of Sediment

- Sediment track-out from the site needs to be removed by the end of each work day

GOOD Example:

Bad Example:

Street sweeping

No street sweeping has occurred here
(C6) Proper Waste Disposal

• Both personal trash and construction debris, need to be properly managed on site and disposed of at the end of each work day.

GOOD Example: Dumpster is covered and not overflowing

BAD Example: Trashcan is overflowing and uncovered
(C7) Spill Prevention and Control

- All chemicals and hazardous waste must be stored properly in covered containers within an enclosed and secure area.

GOOD Example:

Chemicals are properly contained, covered and labeled

BAD Example:

Chemicals are not properly contained, covered or labeled
(C8) Spill Prevention and Control

- Operator must have spill prevention and control measures in place in order to properly contain and dispose of spills

GOOD Example:
Provides Spill Prevention and Control

BAD Example:
Not knowing what to do in the event of a spill
(C9) Spill Prevention and Control

- Spill prevention and control equipment must be on site at all times and in highly visible locations.

GOOD Example:

Spill kit located in a staging area

Where is the spill kit?

BAD Example:

There may or may not be a spill kit on site.

The what?
(C10) Spill Prevention and Control

- Staff must be trained on use and location of spill prevention and control equipment
Non-Stormwater Discharges

- Non-stormwater discharges must be kept separate from stormwater flow
- These include:
  - All types of wastewater washout
  - Pumped groundwater
  - Any type of contaminated water

This is what we don’t want, contaminated wastewater mixing with stormwater
(C12) Non-Stormwater Discharges

• Non-stormwater discharges must be managed properly with adequate controls

GOOD Example:
Concrete washout wastewater being contained on site and disposed of off site

BAD Example:
Concrete washout wastewater going into a catch basin
(C13) Dewatering Practices

- Groundwater and stormwater must be managed with necessary controls
- Theses controls include:
  - Temporary Sediment Basin
  - Temporary Sediment Trap
  - Compost Filter Socks
  - Dewatering Tanks and Bags
  - Pump Settling Basins
  - Pump Intake Protection
  - Filtration Systems
(C14-i) Discharge Requirements

- Measures must be in place to prevent floating solids and foam at all discharge points.

GOOD Example:
- BMPs in place to prevent pollutants from entering stormwater.

BAD Example:
- Pollutants have created foam in the stormwater.
(C14-ii) Discharge Requirements

- To the extent feasible, upland and sloped areas must be vegetated to promote dewatering infiltration

GOOD Example:
Well vegetated slope

BAD Example:
Barren slope covered in loose sediment
(C14-iv) Discharge Requirements

- If filters are used, the filter backwash must be disposed of off site

Iron Backwash Example:

Cup 1 = Water before treatment, Cup 2 = Water after treatment, Cup 3 = backwash before treatment, Cup 4 = backwash after treatment. Backwash will NEVER be clean!
(C15) Proper Material Staging Areas

- All materials must be properly stored in order to minimize pollutant exposure to stormwater.

GOOD Example:
Staging area and all non-outdoor materials are surrounded by erosion controls.

BAD Example:
Staging area and non-outdoor materials are NOT surrounded by erosion controls.
(C16-i) Discharges From Stockpiles

- **ALL** stockpiles must be located within the limits of disturbance

GODD Example: 

BAD Example:

Stockpile is located within the LOD

Stockpile is spilling over the perimeter erosion control (LOD marking)
(C16-ii) Discharges From Stockpiles

• **ALL** stockpiles must be surrounded by temporary erosion controls

GOOD Example:

BAD Example:

Stockpile surrounded by erosion controls

Unprotected stockpile
(C16-iii) Discharges From Stockpiles

- If necessary, stockpiles must be covered or stabilized by vegetative or structural means.

**GOOD Example:**
- Stockpile is covered at the end of each workday.

**BAD Example:**
- Stockpile is not covered or contained with erosion controls.
(C17) Minimizing Dust

• The operator must effectively manage dust on site through either water or limiting bare soil

GOOD Example:

BAD Example:

Bare ground watering occurring

Dust pluming from heavy vehicle traffic on bare ground
Designated Washout Areas

- The following washout areas must be clearly marked on site:
  - Wheel washing stations
  - Concrete washout areas
  - Paint washout areas
  - Stucco washout areas

Concrete washout area with sign
(C19) Equipment and Vehicle Fueling and Maintenance

• Fueling and maintenance locations must be preventative of pollutants contacting stormwater and impacting sensitive receptors
Section C Answer Key

- C1-i – No
- C1-ii – No
- C1-iii – Yes
- C1-iv – Yes
- C1-v – Yes
- C1-vi – N/A
- C2 – No
- C3 – No
- C4 – No
- C5 – No
- C6 – No
- C7 – N/A
- C8 – Yes
- C9 – Yes
- C10 – Yes
- C11 – No
- C12 – No
- C13 –
- C14-i – No
- C14-ii – No
- C14-iv – N/A
- C15 – No
- C16-i – Yes
- C16-ii – No
- C16-iii – Yes
- C17 – No
- C18 – Yes
- C19 – Yes
Feedback for Section C

I WANT YOU

FOR FEEDBACK!
Let's Fill Out Section D
Section D

Record Keeping
(D1) SESC Location

• Sign must be posted at the front entrance to the site which includes:
  - Location of the SESC Plan
  - Contact person’s name
  - Contact person’s info

SESC Plan
Located in the RIDOT Field Office at 56 Lincoln Ave, Warwick, RI 02888
Please Call Wayne at (401) 567-9877

Example SESC Plan Location Sign
(D2) Required Documents

- All required documents should be available in a central location on site when the site is active
- On site = in field office
(D3) Required Documents

• Copy of signed SESC Plan must be on site
(D19) Required Documents

- Copies of all SESC weekly inspection reports must be on site.
(D18) Required Documents

- Copies of all project permits and RIPDES Notice of Intent must be on site
(D6) Required Documents

- Full construction Site Plans or SESC Site Plans detailing all erosion controls must be on site.

Site Plans detailing BMPs
(D4) SESC Plan

- The SESC Plan must be signed and certified by the site operator.

SESC Plan operator certification page
(D5) SESC Plan

- The SESC Plan must also be signed and certified by the site owner.
(D7) SESC Plan

- **ALL** amendments to the SESC Plan or Site Plan must be documented
(D8) Weekly Inspection Records

- Inspections of ALL stormwater control measures must be completed at least once a week and after 0.25 inches of rain in 24 hours.
(D9) Weekly Inspection Records

• If the inspections were reduced to once per month due to frozen conditions, this must be documented on the inspections.
(D10) Weekly Inspection Records

• ALL Weekly Inspection Reports must include:
  - Date of inspection
  - Time of inspection
  - Inspector’s name
  - Inspector’s signature
  - Inspector’s contact info
  - Owner’s signature
  - Operator’s signature
(D11) Records of Maintenance and Corrective Actions

- **ALL** stormwater control measures must be properly maintained on site
(D12) Records of Maintenance and Corrective Actions

• If a problem is identified, the operator must initiate work to fix it within 24 hours
(D13) Records of Maintenance and Corrective Actions

- If a significant repair is needed, the operator must do this within 7 days of the discovery (if possible)
(D14) Records of Maintenance and Corrective Actions

• If a significant repair is needed (not feasible to do it within 7 days), this must be documented in the SESC Plan with the estimated timeframe needed for completion.
(D15) Records of Maintenance and Corrective Actions

• If modifications to the SESC Plan are required due to significant maintenance, **ALL** copies of the SESC Plan must be updated within 7 days
(D16) Records of Maintenance and Corrective Actions

- **ALL** corrective actions must be documented in the RIDOT Weekly Inspection Report in which the problem was discovered.
(D17) Records of Maintenance and Corrective Actions

- **ALL** corrective actions must be documented, as well as signed and dated by the operator once the repairs have been completed.
## Certification Statement

### CERTIFICATIONS

**SITE INSPECTOR Certification:** "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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."

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</table>
Section D Answer Key

- D1 – Yes
- D2 – No
- D3 – Yes
- D19 – Yes
- D18 – No
- D6 – Yes
- D4 – Yes
- D5 – Yes
- D7 – N/A
- D8 – Yes
- D9 – No
- D10-i – Yes
- D10-ii – Yes
- D10-iii – Yes
- D10-iv – Yes
- D10-v – No
- D10-vi – No
- D10-vii – No
- D11 – No
- D12 – Yes
- D13 – N/A
- D14 – N/A
- D15 – N/A
- D16 – Yes
- D17 – No
Feedback for Section D

I WANT YOU

FOR FEEDBACK!
Completion of Construction Stormwater Self-Certification Checklist (Submittal 2)

**MUST** be submitted to the RIDOT Natural Resources Unit within 30 days of completing permanent site stabilization

Submission of this checklist also serves as a RIDEM RIPDES GP Notice of Termination (NOT)
### Project Information

<table>
<thead>
<tr>
<th>Environmental Permits</th>
<th>Permit Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Yes RIPDES CGP (construction)</td>
<td></td>
</tr>
<tr>
<td>□ Yes RIPDES RGP (dewatering)</td>
<td></td>
</tr>
<tr>
<td>□ Yes Freshwater Wetlands</td>
<td></td>
</tr>
<tr>
<td>□ Yes Water Quality Certificate</td>
<td></td>
</tr>
<tr>
<td>□ Yes CRMC Assent</td>
<td></td>
</tr>
<tr>
<td>□ Yes Army Corps</td>
<td></td>
</tr>
<tr>
<td>□ Yes Other (indicate type below)</td>
<td></td>
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</tbody>
</table>

| Site Name: | |
| Site Address: | |

<table>
<thead>
<tr>
<th>Site Owner</th>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
</table>

| Mailing Address | |

<table>
<thead>
<tr>
<th>Site Operator</th>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
</table>

| Mailing Address | |

### Inspection Information

<table>
<thead>
<tr>
<th>Site Inspector</th>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
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<table>
<thead>
<tr>
<th>Inspection Date</th>
<th>Start/End Time</th>
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</table>

| Date Land Disturbing Activities Ceased | |
| Date Final Site Stabilization was Achieved | |
Section A

DEM Freshwater Wetlands Permit Conditions
(A1) Is FWW Applicable?

- Indicate if FWW Permit conditions were applicable to the project
- Same as Question A1 from Sub. 1
- If N/A, move on to Section B
(A2) Flood Loss Compensation

• Indicate if the project includes flood loss compensation
• If N/A, move on to Question A3
(A2-i) Flood Loss Compensation

• Flood loss storage area must be excavated prior to any filling or alterations within the flood plain area
(A2-ii) Flood Loss Compensation

• Dimensions of the flood loss storage area must be verified by a professional engineer

• Must be consistent with the approved site plans

Excavation Area
Certification

• Professional engineer must verify that the flood loss storage area was excavated correctly
(A3) Have You Complied with the Terms of the FFW Permit?

- Indicate if you have complied with the terms and conditions of the RIDEM FWW Permit
- Same as Question A10 from Sub. 1

If you answered "No" to question A3, indicate any changes that were made here:

**Note:** If you answered “No” to question A3 you may be in violation of your Freshwater Wetlands Permit Conditions. You should contact the DEM Office of Customer & Technical Assistance for further information by calling (401) 222-6822.
(A10) Plantings

• Indicate if the project included any plantings
• If N/A, move on to Section B
• This does NOT include grass!
• This does include:
  ➢ Shrubs
  ➢ Trees
  ➢ Other forms of vegetation
(A10a) Plantings

- The number and sizes of plantings installed must be in compliance with those detailed on the approved site plans.
(A10b) Plantings

• Indicate date of planting completion
(A10c) Plantings

• All plantings must be maintained or replaced if necessary

Watering is part of proper maintenance

Dead and needs to be replaced
Section B

DEM Permit General Conditions
(B1) Permanent Stabilization

• **ALL** disturbed areas must be permanently stabilized

GOOD Example:

All disturbed soils have been seeded and planted for stabilization

BAD Example:

Stream is eroding, erosion control blanket is unearthed and surrounding area is not well seeded
**B2** Erosion Controls

- **ALL** temporary erosion control measures must be properly removed and disposed of if they are not expected to decompose.

**GOOD Example:**  
Biodegradable erosion controls in use

**BAD Example:**  
Non-biodegradable erosion control left on a site that has finished construction.
(B3) Encourage Growth

• Soils should be preserved or restored to provide a suitable habitat for vegetative growth.

GOOD Example:
Soils on an access point are being preserved through the use of construction mats.

BAD Example:
Soil here may need to be restored if vegetative growth does not occur.
(B4) Bare Spots

- **ALL** bare spots must be seeded and mulched

GOOD Example:

Uniform layer of vegetation

BAD Example:

Bare spots need to be seeded and mulched
(B5) Vegetation

- There must be a uniform turf or other type of vegetation in **ALL** areas where vegetative stabilization is necessary

GOOD Example:

Thick, healthy vegetative growth

BAD Example:

Vegetation has died and needs to be replaced
(B7) Erosion

• **ALL** remaining signs of erosion must be repaired

GOOD Example:

Erosion control blankets used on a slope to manage erosion

BAD Example:

Slope leading to a stream is badly eroded and needs to be repaired
(B8) Access Points

- **ALL** access points on site must be restored according to the RIDEM approved Site Plans

GOOD Example:

- Reclaimed access road

BAD Example:

- Old access road needs to be seeded
(B9) Drainage System

- ALL drainage systems and outlets must be checked to ensure proper installation and operation

GOOD Example:
Outlet is properly installed and working

BAD Example:
Catch basin has collapsed
(B10) Inlet Areas

• **ALL** inlet areas must be clear, clean and stabilized

GOOD Example:

Catch basin is in good working condition

BAD Example:

Catch basin is in horrible working condition
(B11) Ground Infiltration Areas

• **ALL** swales, banks, and ditch bottoms must be stabilized by either vegetation or structural measures

GOOD Example:

Swale has uniform vegetation

BAD Example:

Swale is filled with sediment and unstabilized
(B12) Stormwater Flow

- Areas where runoff flows converge or where high velocity flows are expected must be stabilized

GOOD Example:

BAD Example:

Uniform vegetation stabilizing flow at a convergence point

Stabilization needed at flow convergence point
(B13) Vegetation Maintenance

- Vegetation that has been damaged or removed must be graded, re-seeded or replanted
- Temporary stream crossings must be removed

GOOD Example:

BAD Example:

Suitable growth of vegetation

Area needs to be reseeded
(B14) Infiltration

- **ALL** pervious areas and surface infiltration treatment systems must be restored to ensure the best possible infiltration capacity

**GOOD Example:**
Old surface infiltration basin has been restored

**BAD Example:**
Old surface infiltration basin is pooling and needs to be restored
(B15) Permanent Treatment Systems

• Indicate if the project includes permanent stormwater treatment systems

• These include:
  ➢ ALL types of Basins
  ➢ Infiltration Areas
  ➢ Piping Systems
  ➢ Culverts
  ➢ Swales
(B15-i) Permanent Treatment Systems

• Permanent treatment systems must be surveyed or checked to ensure proper installation and operation.

Checking a Water Quality Treatment System
(B16) Permanent Treatment Systems

- A Stormwater Facility Maintenance Agreement must be established between the site owner and the those responsible for inspecting and maintaining all permanent stormwater treatment systems.

Periodic removal of captured pollutants is essential.

Stormwater Facility maintenance occurring.
(B17) Permanent Treatment Systems

- A professional must check all permanent stormwater management features to ensure they are installed as detailed on the RIDEM approved Site Plans
- Certification
(B18) Subcontractors

- **ALL** subcontractors must repair their work areas before final closeout
(B19) Debris and Trash

• The operator must remove **ALL** construction debris and personal trash from the site

Debris left for so long that has become overgrown
(B20) Staging Areas

- Staging areas must be properly restored and there should not be any evidence of spills here.
(B21) RIPDES GP Annul Fees

- **ALL** RIDEM RIPDES Construction General Permit annual fees must be paid prior to requesting formal termination of the permit.
## Certification Statement

### CERTIFICATIONS

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They Are Different, But Work Together

- RIDOT Weekly Inspection Reports = assess site compliance on a weekly basis
- Self-Certification Checklists = assess overall site compliance for life of the project

The small parts that make up the big picture
Compliance Assistant Program

• Objective
• Current situation
• Motivation
• Compliance Assistance Program introduction
• Self-Certification checklists
• Wrap up
• Open forum
Lending a Helping Hand

• The Self-Certification Checklists provide guidance for:
  - RIDOT Weekly Inspection Reports
  - Permit Requirements
  - BMP Requirements
  - Documentation Requirements
On Site Documentation

- The following must be on site at all times:
  - Signed copy of the SESC Plan
  - **ALL** RIDOT Weekly Inspection Reports
  - Copies of **ALL** permits
  - SESC Plans or Site Plans detailing BMPs
SESC Amendments

• For amendment to the SESC Plan you must:
  - Specify this in the RIDOT Weekly Inspection Report Amendment Log in which the issue was first documented
  - Update all copies of the SESC Plan
RIDOT Corrective Action Process

- **Corrective Action Required**
  - **Minor Action or Repair**
    - Initiated Within 24 Hours of Discovery
    - Completed Soon Thereafter
  - **Significant Action or Repair**
    - If NOT Feasible, State the Reason Why and the Scheduled Date for Completion in SESC Plan
    - Once Done, Must be Documented in SESC Plan
    - If Feasible, Completed Within 7 Days
Compliance Assistant Program

- Objective
- Current situation
- Motivation
- Compliance Assistance Program introduction
- Self-Certification checklists
- Wrap up
- Open forum
Questions