RIDOT CONSTRUCTION
Winter Development Series

Pollution Prevention & Compliance

April 2015
• Polar bear video – how clean is your stormwater??

• Stormwater demo – Jar of snow melt (EEWW)
What Brings us Together Today??

Beachin’

Stuffies

Little Necks

Scarborough Beach

Lobstahs

Chowdah
RHODE ISLAND VS NEW ENGLAND

Trout Fishing

Quahoggin’

Kayaking

Clam Cakes

TROUT FISHING
Introductions

• RIDOT
  – NRU: Allison Hamel & Mike Dahlquist
  – OPD: Kathleen Sisson \textit{et al}

• RIDEM
  – OWR: Brian Moore, Eric Beck & Brian Lafaille

• URI
  – NEMO: Lorraine Joubert & Lisa Philo
  – Engineering: Vinka Craver & Eilish Finneran
RIDEM Mgmt
Environmental Results Program
RIDOT Mgmt
RIDOT sets the example for the entire State of Rhode Island

• Largest continuous contracting effort
  • In FY2014: RIDOT Awarded 88 Contracts:
    – $100,622,002.05 total *
    – Average $2.3M

• Most visible projects
  • Providence Viaduct, 195 Bridge Replacement, Apponaug Circulator, Jamestown Bridge Demo

• Contracts are Statewide – RIDOT works in every
  • City & Town
  • Urban & Rural
  • Coastal & Inland
  • MS4 Permit & out
What example do we set?

• RIDEM enforcements
  – Relocated Route 403 – HazWaste & Wetlands
  – Salt Storage All Facilities; Salt Storage Clayville
  – Rt 95 Bridge Painting
  – 195 HazWaste Management & Dewatering

• US EPA & Dept of Justice
  – Failure to Comply with Stormwater Permit

• Coming down the pike...
  – Apponaug Circulator
  – Providence Viaduct
What example do we set??

• Stormwater Pollution Prevention Plan (SWPPP) Template
  – RIDOT developed
  – RIDEM adapted and adopted statewide
• Stormwater Training Program
  – RIDOT, URI NEMO, RIDEM won AASHTO Award
• Compliance Assistance Program (CAP)
  – RIDEM developed
  – RIDOT implementing proactively!
• Endurance
Today's Goals

Goal #1: Awareness of Compliance Requirements

Goal #2: Provide SOLUTIONS to aid in compliance efforts

Goal #3: Receive feedback & recommendations
ENTRING
RHODE ISLAND
THE OCEAN STATE
KEEP YOUR SMART
REMARKS TO YOURSELF

[Cartoon of cars on a roadway with a sign that reads: "Entering Rhode Island, the Ocean State. Keep your smart remarks to yourself." ]
Narragansett Bay Watershed Impervious Surface & Impaired Waters

RI DEM combined similar imperviousness datasets for MA & RI into a seamless grid clipped to the watershed extent. The data represent man-made 100% impervious areas such as pavement, rooftops and other structures.

The impervious areas were then calculated as percentage of the stream segment catchments taken from the National Hydrography Dataset and described as “elevation derived drainage areas” for each NHD reach.

The resulting map highlights portions of the watershed with significantly high percentage of impervious areas.

% Impervious
- 0% - 8%
- 9% - 12%
- 13% - 15%
- 16% - 25%
- 26% - 82%
- Impaired Waterbody

Legend:
- Green: 0% - 8%
- Dark Green: 9% - 12%
- Light Green: 13% - 15%
- Yellow: 16% - 25%
- Orange: 26% - 82%
- Red: Impaired Waterbody
This was no time for play.
This was no time for fun.
This was no time for games.
There was work to be done.
Using the Keypads

1. Respond to polling questions using A,B,C, etc. keys.
2. Green light flashes a few seconds to confirm response received.
3. Yellow light - polling not open or in process of sending your response.
4. Red - response not received. Dead battery? Ask for another keypad.
5. Please do not leave this room with the keypad!
What is the #1 source of pollution to Narragansett Bay?

A. Agricultural Runoff
B. Wastewater Treatment Plants
C. Combined sewer overflows
D. Stormwater Runoff
E. Duncan Donuts cups
What do you enjoy in the Ocean State?

*Check all that apply – up to 5 votes*

A. Fishing  
B. Swimming  
C. Boating  
D. Taking family to any of the above.  
E. Eating quahogs / other local seafood.
Door Prize Announcement!

At the end of the workshop, we will ask a question pertaining to something you see or hear today. The first to answer wins a *fabulous* prize!
Basics of Environmental Compliance

What we’re doing... what we’re not... and where we’re going...

April, 2015
Who Is Responsible For...

*Enforcing Contract Documents?*

A. Resident Engineer  
B. Contractor  
C. Field Inspector  
D. SWPPP Inspector  
E. Bert & Ernie  
F. DEM  
G. Everyone On Site
12.105.01 AUTHORITY OF THE ENGINEER. The Engineer will decide all questions related to the quality and acceptability of materials furnished; work performed; and the rate of progress of the work; questions regarding the interpretation of the Contract Documents; and questions as to the acceptable fulfillment of the Contract by the Contractor.

The Engineer will have the authority to suspend the work completely or in part due to the failure of the Contractor to correct conditions unsafe for the workers or the general public; for failure to carry out provisions of the Contract; for failure to carry out orders; for such periods necessary due to unsuitable weather; for failure to correct damages to public or private properties caused by the Contractor and/or its Subcontractors, for conditions considered unsuitable for the prosecution of the work or for any other condition or reason determined to be in the State's interest.
Who Is Responsible For...

**Maintaining Compliance?**

A. Resident Engineer
B. Contractor
C. Field Inspector
D. SWPPP Inspector
E. Bert & Ernie
F. DEM
G. Everyone On Site
Laws to be observed

12.107 – Legal Relations and Responsibility to Public

12.107.01 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.
All costs associated with the work described in this Subsection shall be borne by the Contractor, unless otherwise provided, under Subsection 12.104.03; Differing Site Conditions.

12.104.15 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 the Specifications (Blue Book).
charge for the materials to be used, excavate or remove any material from within the highway location which is not within the grading limits, as indicated by the slope and grade lines, without prior written authorization from the Engineer.

12.104.11 FINAL CLEANING-UP. Prior to any inspections performed subsequent to the Contractor’s “Notice of Substantial Completion,” all areas occupied by the Contractor in connection with the work shall be cleaned of all rubbish, excess materials, temporary structures, and equipment. All parts of the work shall be left in an acceptable condition.

The cost of the final clean-up shall be incidental to other items of work and no separate payment shall be made.

The Contractor shall remove its equipment, materials and other obstacles from the project right-of-way and from property adjacent to the project site which is not owned or controlled by the Contractor within thirty (30) days after completion of the Project. The Contractor shall clean and remove all cement streaks or drippings, paint smears or drippings, rust stains, oil, grease, bituminous materials, dirt, and other foreign materials on or in any structure, curb, gutter, median or gore marker due to its operation.

12.104.12 RAILWAY-HIGHWAY PROVISIONS. If the Contract requires that materials be removed across the tracks of any railway, the Department will arrange with the railway for new
What is an SESC Plan?

A. Are we allowed to talk about that here?
B. Same as a SWPPP
C. Simple Escape in the event of Sudden Catastrophe
D. A GINORMOUS pain in the...
Who are the players?

- RIDOT
- Resident Engineer
- Engineer Technician
- Consultant Inspector
- Contractor
- Sub-Contractor
Who is the owner?

A. SWPPP Inspector
B. Contractor
C. Resident Engineer
D. Engineer Tech
E. Owner of what?
Who is the operator?

A. The person you talk to when you dial 411. Wait...who dials that?
B. SWPPP Inspector
C. Contractor
D. Resident Engineer
E. Engineer Tech
Operator
Who is the SESC inspector?

A. We have Inspectors?
B. Design Consultant
C. Contractor
D. Resident Engineer
E. Engineer Tech
Inspector

Large Site (>1-acre)

Small Site (< 1-acre)

Consultant Inspector

RIDOT Inspector (R.E. or EngTech)
A review of Who’s WHO?

**OWNER**

- Resident Engineer
- Engineer Technician

**OPERATOR**

- Contractor
- Sub-Contractor

**INSPECTOR**

- Consultant Inspector
- RIDOT Inspector
Who Is Responsible For...

Implementing SWPPP Documents?

A. Resident Engineer
B. Contractor
C. Engineer Tech
D. SWPPP Inspector
E. Bert & Ernie
F. DEM
G. Everyone On Site
Who Is Responsible For...

*Inspecting E&S Controls?*

A. Resident Engineer
B. Contractor
C. Engineer Tech
D. SWPPP Inspector
E. Bert & Ernie
F. DEM
G. Everyone On Site
US EPA & Dept of Justice

Draft Consent Decree Measures include:

• RIDOT IDDE Plan w/ Standard Operating Procedure
• All Construction Projects to have ‘Clean & Flush’ drainage system as part of project
• Comprehensive Drainage Repair Inspection Program (DRIP) clean, repair, inspect drainage system (i.e. 2014 295 Contract)
• RIDOT shall incorporate an Environmental Inspector requirement into RIDOT program contracts
• 12.101.16 CONTRACTOR. The individual, partnership, corporation, or any combination thereof, or joint venture contracting with the State for performance of the prescribed work. (The terms “Contractor” and “Bidder” are frequently used synonymously.)

• 12.101.23 ENGINEER. The Chief Engineer of the Division of Public Works, acting directly or through his or her duly authorized representatives, who is responsible for engineering and administrative supervision of the Contract.

• 12.101.53 RESIDENT ENGINEER. The Engineer's authorized representative at the site of the work whose main responsibility is to insure Contract compliance.
10 Steps to SESC Compliance

1. Know the Basics
2. Know the Contract Documents
3. Good Pre-Construction Meeting
4. SESC On-Site Setup
5. Do **FINISH** the Inspections
10 Steps to SESC Compliance

6. Know the Weather

7. Keep Records

8. Stabilize as you go

9. Don’t pay for it if it ain’t right

10. Ditch “That’s how it’s always been”
Step 1: What is it?

SWPPP = Stormwater Pollution Prevention Plan

= SESC = Soil Erosion & Sediment Control Plan

Details erosion and sedimentation controls for a SPECIFIC construction site

The SESC is DYNAMIC

Even if practices are correctly 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.
Step 2: Know the Contract Documents

- Blue Book Standard Specifications
- Contract Specific Documents
  - Environmental Permits
- Job Specific Documents
  - Failure to Maintain E&S Controls
  - Dewatering Contaminated Groundwater
  - HazWaste Disposal
- Plans
  - Limits of Disturbance
...the Contractor shall sign the SWPPP as the Operator at the time the Contract is signed acknowledging that he understands the terms and conditions of the SWPPP and agrees to follow the Best Management Practices described in it. The Contractor shall be held responsible for any and all cost associated with fines and clean up activities, over and above the penalty assessed herein resulting from contractor failure in this regard...
CODE 212.2000 - MAINTENANCE AND CLEANING OF EROSION AND POLLUTION CONTROLS

For the FIRST violation, the charge for this Contract will be $1,000 per day.

For the SECOND violation, the charge for this Contract will be $5,000 per day.

For each SUBSEQUENT violation, the charge for this Contract will be $10,000 per day.
The contractor will be required to have a full-time, on-site designated contact person responsible for working with the RIDOT Resident Engineer to resolve SWPPP-related issues. This person must be present, and identified as the SWPPP contact, at the preconstruction conference.
3: Good Pre-Construction Meetings

At preconstruction meeting:

– Identify sensitive areas, clarify roles and responsibilities and communicate permit requirements and other expectations for environmental compliance.

– Discuss communication procedures.

– Remind the contractor that they are contractually obligated to adhere to contract requirements & environmental regulations

– Reinforce that compliance is a team effort.

INVITE the NRU – we are here to help!
4: SESC On-Site Setup

• Set up the onsite documentation
  – SESC Plan
  – Plans
  – Corrective Action Log
  – Amendment Log

• Notify SESC Inspector to start before Earth-Ex

• Establish and document your sequence of activity

• POST Site Maps; Phases of Construction;
  What to do if there’s a spill
5: **Do FINISH** the Inspections

- Inspections are conducted every 7 days and within 24-hrs of a 0.25” storm

- If there are corrective actions, they MUST BE DONE within 7-days of identification
Inspection Start & End

START Inspections BEFORE earth movement

END Inspections after FINAL STABILIZATION;
SWPPP Inspector must sign SWPPP inspection that the Site is in FULL COMPLIANCE with final stabilization.
# Inspection Report

## SWPPP Inspection Report

### Project Information

<table>
<thead>
<tr>
<th>Name/Location</th>
<th>RIDOT Resident Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIDOT Project Manager</td>
<td>SWPPP Contact</td>
</tr>
<tr>
<td>Contractor</td>
<td>SWPPP Contact</td>
</tr>
<tr>
<td>E&amp;S Sub-Contractor</td>
<td></td>
</tr>
</tbody>
</table>

### Inspection Information

<table>
<thead>
<tr>
<th>Inspector</th>
<th>Start/End Time</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Inspection Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Weekly</td>
</tr>
</tbody>
</table>

### Weather Information

| Rain Gauge: | |
|-------------||

<table>
<thead>
<tr>
<th>Last Rain Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
</tr>
</tbody>
</table>

| Current Weather at time of this inspection: | |
|-----------------------------------------------| |

| Weather Forecast at time of this inspection: | (when is next precipitation or wind event anticipated?) |
Certification Statements

Inspector:  (check one)
☐ I, as the designated Inspector, certify that this site has been inspected and **is in compliance** with the site-specific SWPPP.
☐ I, as the designated Inspector, certify that this site has been inspected and I have made the determination that the **site requires corrective actions** before it will be compliant with the site-specific SWPPP. The required corrective actions are noted within this inspection report.

Print Name:  Signature:  Date:

Resident Engineer:
I, the RIDOT Resident Engineer, acknowledge the receipt of this SWPPP inspection report, and understand the requirements set forth in the RIDOT Standard Specifications and the Contract Documents regarding the implementation and maintenance of erosion and sedimentation controls.

Print Name:  Signature:  Date:

Contractor:
I, the designated Contractor representative, acknowledge the receipt of this SWPPP inspection report, and understand the requirements set forth in the RIDOT Standard Specifications and the Contract Documents regarding the implementation and maintenance of erosion and sedimentation controls.

Print Name:  Signature:  Date:
# NOTICE TO CONTRACTOR

This SWPPP Inspection Report, completed by a RIDOT-designated inspector, indicates that this construction site is:

<table>
<thead>
<tr>
<th>COMPLIANT</th>
<th>□ No immediate actions are required, other than keeping up the good work!</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Work is required to maintain Site compliance</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NON-COMPLIANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>This document serves as your RIDOT directive to proceed with corrective actions that have been outlined above.</td>
</tr>
<tr>
<td>The SWPPP, Construction Contract documents, and the RIDOT Standard Specifications state that non-compliance issues shall be addressed no later than (7) seven calendar days from 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 calendar day after receiving such a directive from the engineer.</td>
</tr>
</tbody>
</table>

Date work to begin:  

Date work to be completed:  

R.E. initials:  

R.E. Comments:  

Date:  


6: Know the Weather
7: Keep Records

The SESC Plan and ALL documentation (Inspection Reports, Amendment Log, Corrective Actions, Photos, etc) are required to be kept on-site

Writing it down doesn’t get you in trouble, it’s NOT doing the CORRECTIVE ACTION that gets you in trouble!
8: Stabilize as you go

Only areas that can be reasonably expected to have active construction work being performed within 21-days of disturbance will be cleared/grubbed at any one time.

It is NOT acceptable to clear and grub the entire construction site if disturbed portions will not be active within the 21-day time-frame.
9: Don’t pay for crap
Concrete Washout
10: Move on from “That’s how its always been done”

- Street Sweeping is NOT a BMP – it is what we do when our BMP FAILS
- Concrete Washout is ILLEGAL to dump in to storm/sewer drain systems & ALL waters of the state
- SESC’s must be SIGNED by the Inspector, the Resident Engineer, and the Contractor
- **CORRECTIVE ACTIONS MUST BE COMPLETED**
- Before Finals, REMOVE temporary controls!
To help with aaaaall of these steps...

RIDOT is implementing the Construction Site Compliance Assistance Program.
Construction CAP

- New Inspection Checklist for RIDOT to complete
- Complete TWICE-ish per project
- 2014 was Beta-Testing
- Training – right now!
- 2015 - Implementation
# Environmental Compliance

## SWPPP / SESC Inspections
- Storm Water Pollution Prevention Plan / Soil Erosion & Sediment Control Plan **Inspections**
- ONCE+ per WEEK
- Done by consultant
- Oversight by RIDOT

## CAP Inspections
- Compliance Assistance Program **Inspections**
- TWICE+ per PROJECT
- Done by RIDOT
- Oversight by RIDEM