

RIDOT Stormwater Program

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NEWEA
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Today's Presentation

- Background
 - RIDOT Stormwater Program
 - Consent Decree
- Progress to date
 - Statewide desktop review
 - RIDOT tools
 - Data management
 - Dashboard and reporting

The screenshot shows the RIDOT website's stormwater management page. The header includes the RIDOT logo, a search bar, and navigation links for Home, About Us, Doing Business, Traveler Information, In Your Community, Performance, and News. The main content area is titled "Our Stormwater Management Program" and features a large image of a stormwater treatment structure. Text on the page explains that the R.I. Department of Environmental Management is the delegated authority for implementing the National Pollutant Discharge Elimination System (NPDES) through a program called RIPDES. It also mentions that the federal government considers the network of drainage structures as a system, regulated as an MS4. A list of Best Management Practices (BMPs) is provided, including Public Education and Outreach, Public Involvement and Participation, Illicit Discharge Detection and Elimination, Construction Site Stormwater Runoff Control, Post-Construction Stormwater Management in New Development and Redevelopment, and Pollution Prevention/Good Housekeeping for Municipal Operations. A "Have questions?" section provides contact information for RIDOT Customer Service. On the right side, there are sections for "Annual Stormwater Compliance Report", "Stormwater Quick Links", "References", "Reports & Plans", and "Stormwater Consent Decree". The footer includes "Stormwater Coordinators In Rhode Island" and a "Download Consent Decree" link.

RIDOT

- Maintains

- 1,100 miles of roadway (724 urban, 374 rural)

- 1,162 bridges

- 5 rail stations

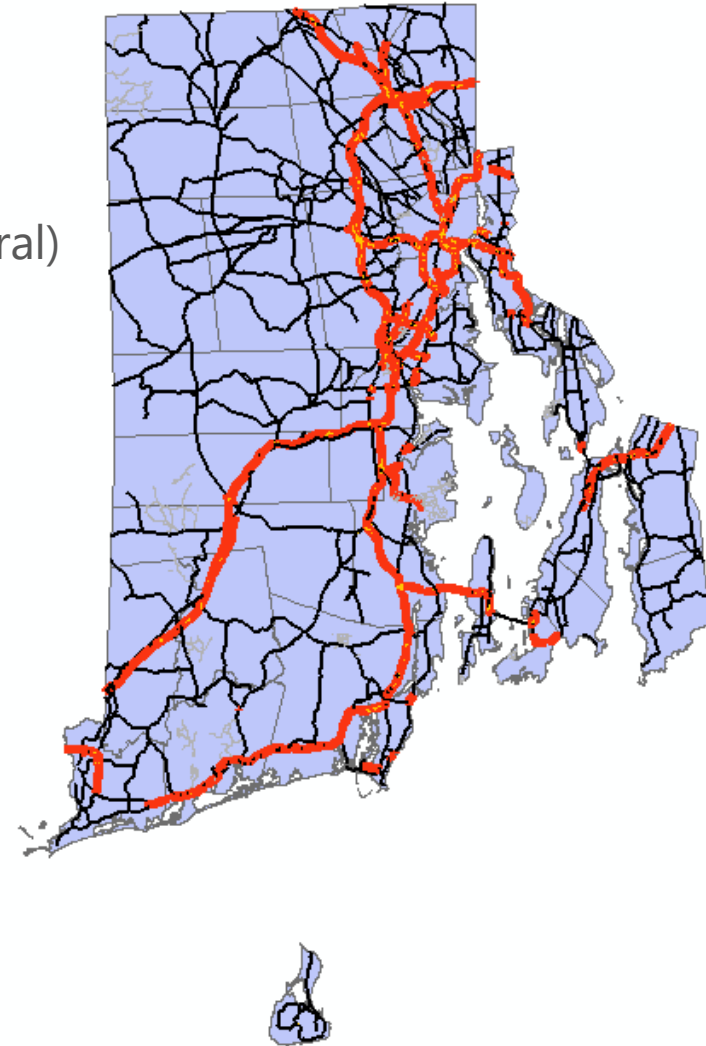
- 60 miles of pedestrian and bike paths

- Office of Stormwater Management

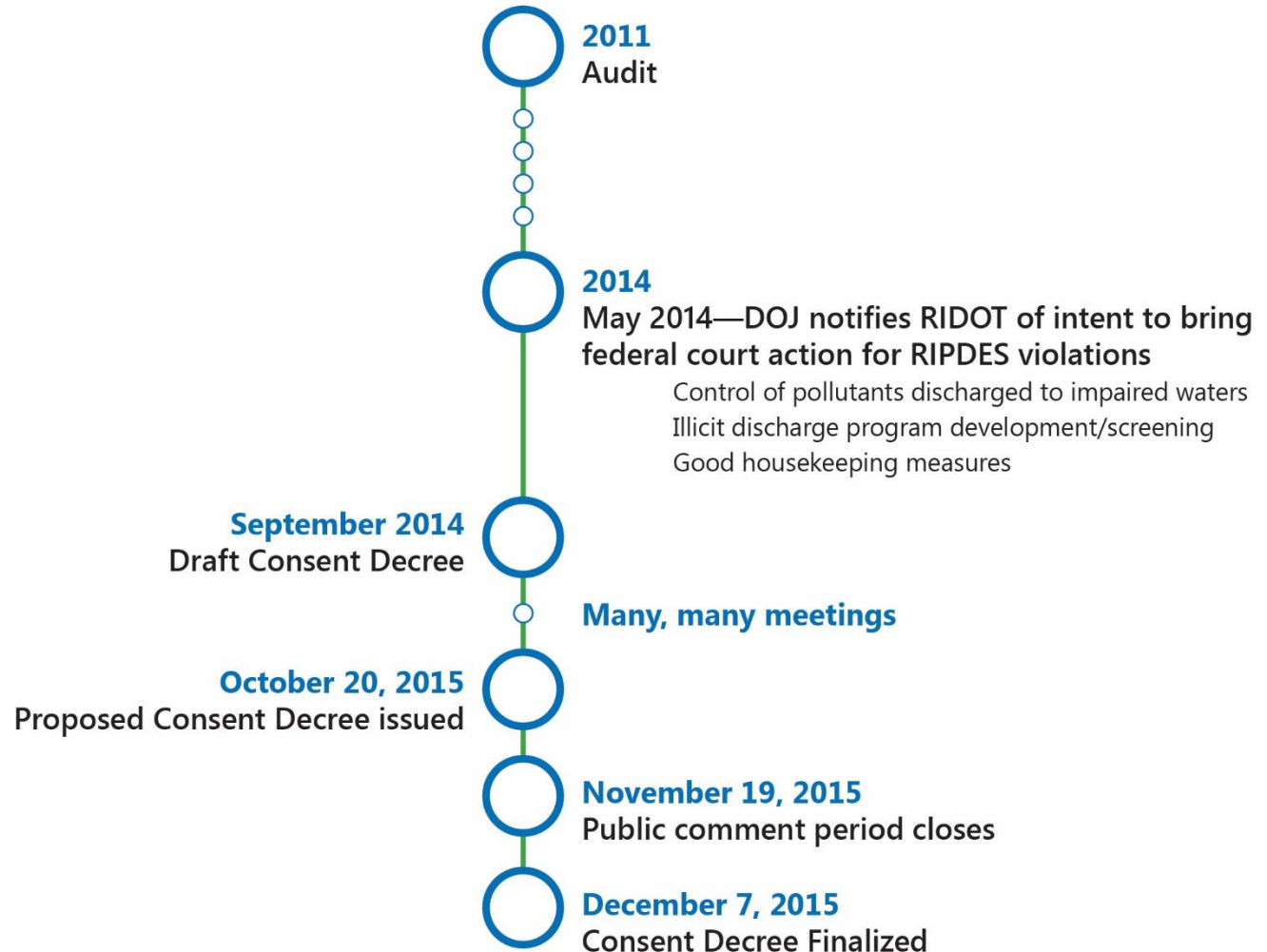
- Staff

- Programs

- Budget

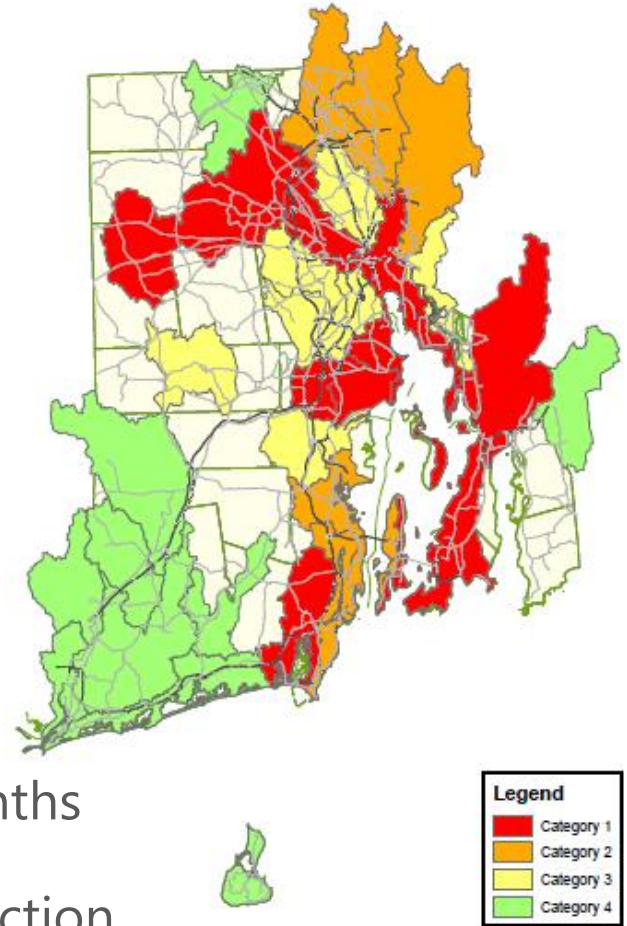


RIDOT's RIPDES Audit/ Consent Decree



Remedial Measures: TMDL and Impaired Waters

- Stormwater Control Plans (SCPs)
 - RIDOT contribution to impairment & reduction targets
 - Produce Group SCPs over 10-year period
 - Update when new EPA-approved TMDL is developed, new construction or reconstruction is planned, or a segment is no longer impaired
- Construction of structural STUs
 - Priority outfalls retrofitted within 4 years
 - Implement all within 8 years of SCP approval
- Implement non-structural BMPs within 3 months
- Include structural controls in all NEW construction and RECONSTRUCTION projects



Remedial Measures: Illicit Discharge Detection & Elimination

- Develop Illicit Discharge Detection and Elimination (IDDE) Plan
- Sample outfalls for wet- and dry-weather flow
- Find, verify, and eliminate illicit connections
- Initiate investigation within 60 days of any awareness of illicit discharge
- Include “Environmental Inspector” on ALL drainage capital program projects



Remedial Measures: Good Housekeeping

- Street Sweeping
 - Sweep all streets in permit area at least once per year
 - Conduct increased frequency sweeping as identified in Consent Decree Appendix 11 and SCPs

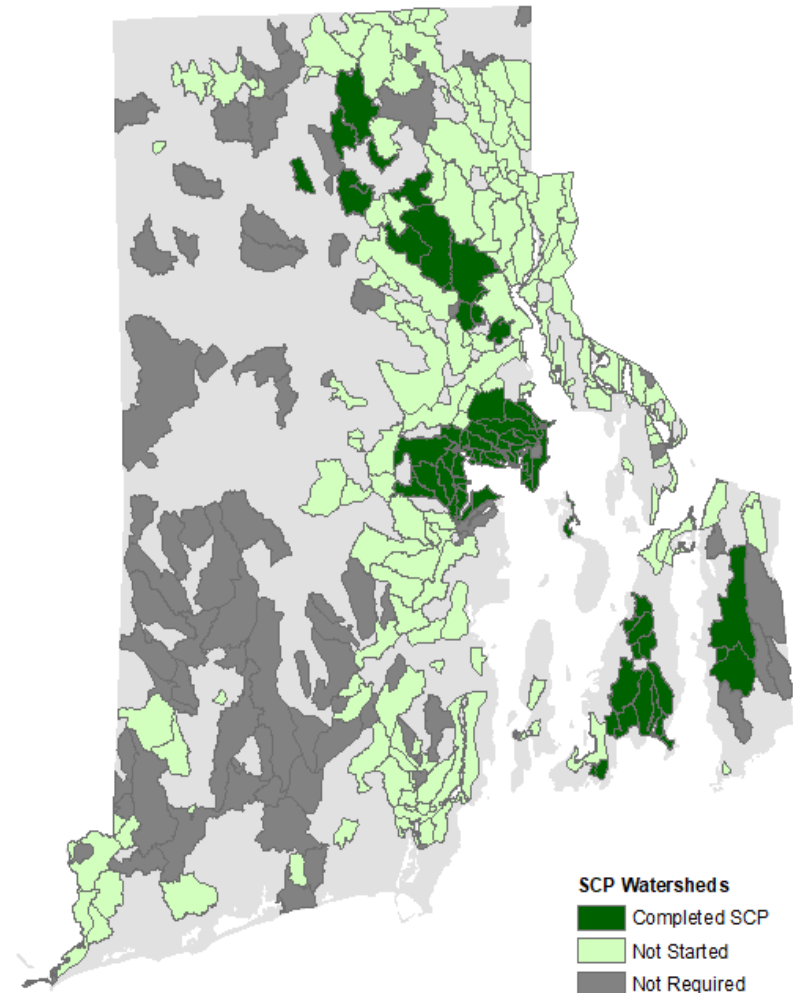
- Catch Basins, Manholes, and Outfalls
 - Implement tracking protocol Maintenance Management System (VueWorks)
 - Locate and inspect drainage structures
 - 50% by 12/31/2016
 - 100% by 12/31/2017
 - Clean, repair, and inspect in accordance with schedule
 - 1,250 clean + 1,000 repair on non-interstate
 - 2,000 clean and repair (as necessary) on interstate

- Beginning in 2017, add “clean & flush and inspect” drainage assets to capital program projects



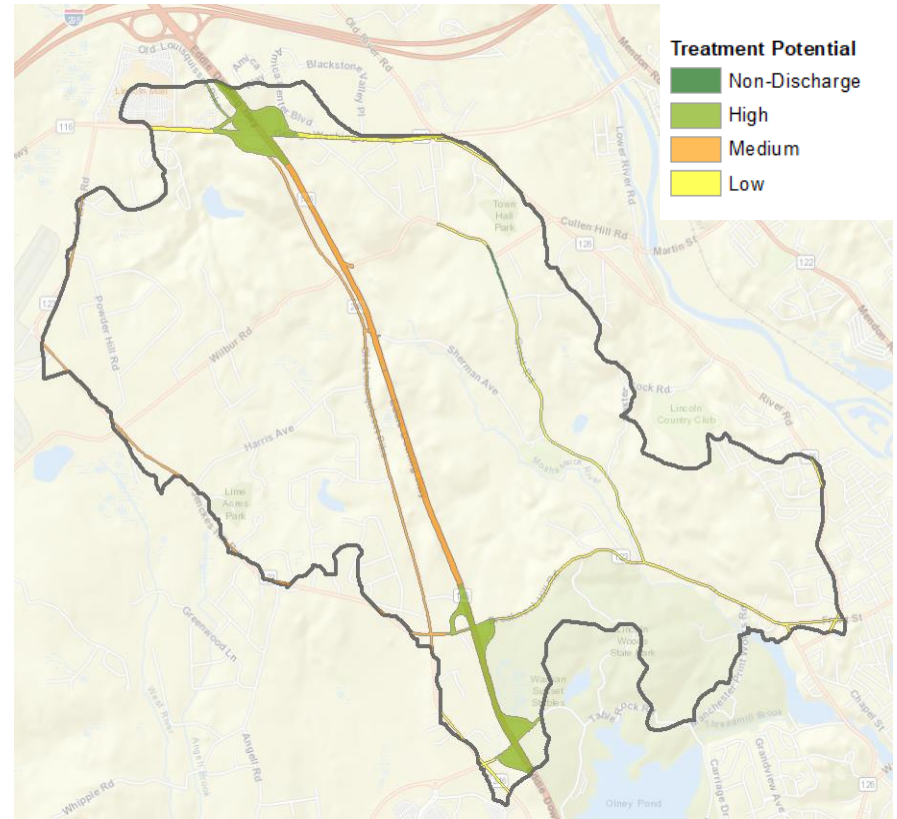
Progress to Date

- SCPs
 - 62 watersheds submitted to EPA
 - 200+ potential STU locations identified
 - 1,300+ acres of RIDOT right-of-way (ROW) mapped
- Drainage Inventory
 - 4,300+ outfalls mapped
 - 34,000+ catch basins mapped
- Drainage Inspection
 - 1,500 outfalls inspected (2018)
 - 8,000 catch basins inspected (2018)
 - 155 STUs inspected (2018)
- IDDE
 - 50+ High Priority and Priority outfalls sampled
 - 500+ outfalls sampled as part of SCPs
- Development of RIDOT Linear Manual



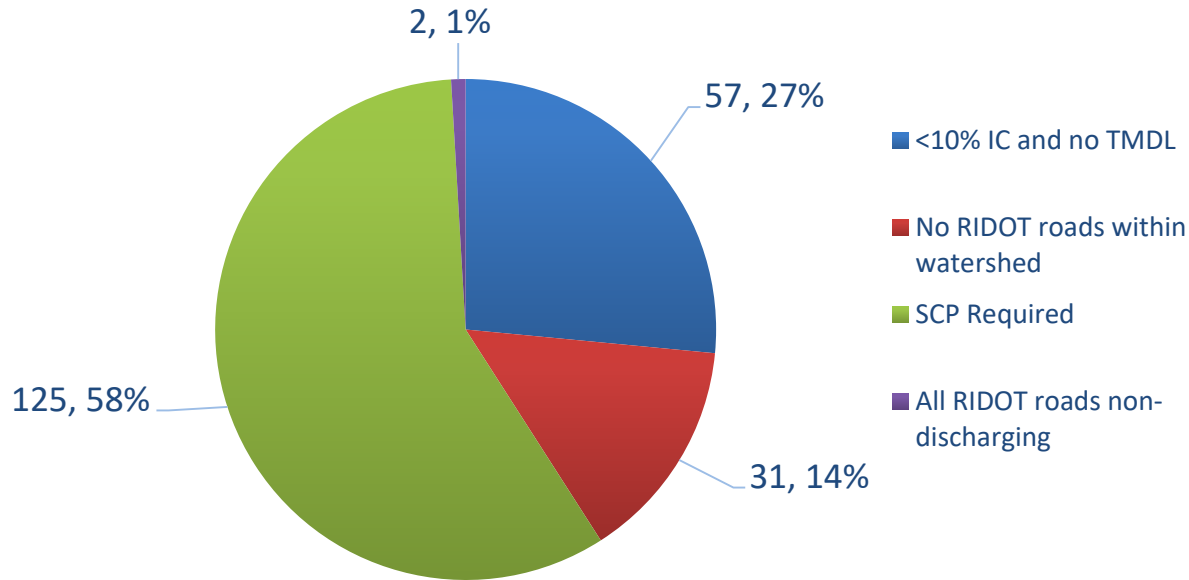
Statewide Desktop Review

- Review of 213 watersheds
 - Review impairments
 - Calculate impervious cover
 - Delineate RIDOT ROW
 - Categorize ROW by treatment potential
- Goals
 - Determine if SCP required
 - Estimate targets
 - Identify level of effort

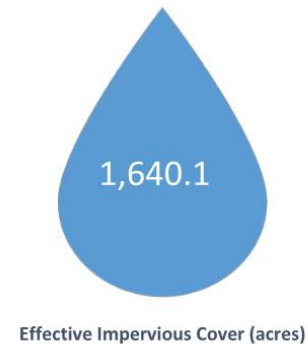


Statewide Desktop Review Results

All Future SCPs by Status



Reduction Required in Future SCPs



SCP Template & Approach Document

- Documents cover:
 - Key Findings
 - Watershed Description
 - Reduction Target Development
 - TMDL Method
 - IC Method
 - Stormwater Controls
 - Existing & potential
 - Nonstructural & structural
 - Descriptions & calculations
 - Implementation

Date Submitted to EPA: TBD
 EPA Approved: TBD
 Date Amended: N/A
 Amendment Notes: N/A

Group Name SCP
Segment Name (RXXXXXXX-XX)
City, State

Key Findings

This SCP Report is for **Segment Name (RXXXXXXX-XX)** located within the **Subwatershed Name(s)** (Figure 1-A).

Table 1-A: Subwatershed Summary

Impairment(s)	Evaluation Methodology	RIDOT Reduction Target (% / Load OR Acres)	Existing Treatment	Potential Treatment	Runoff Reduction	Remaining RIDOT Reduction Target	NonRIDOT Treatment Credit
Fecal Coliform	IC Method	55% (49 ac)	1.4 ac	3.2 ac	7.9 ac-ft	44 ac	20%
Phosphorus	TMDL Method	40% (40 lb/yr)	5 lb/yr	10 lb/yr	7.9 ac-ft	25 lb/yr	20%

Site Description

Subwatershed Description

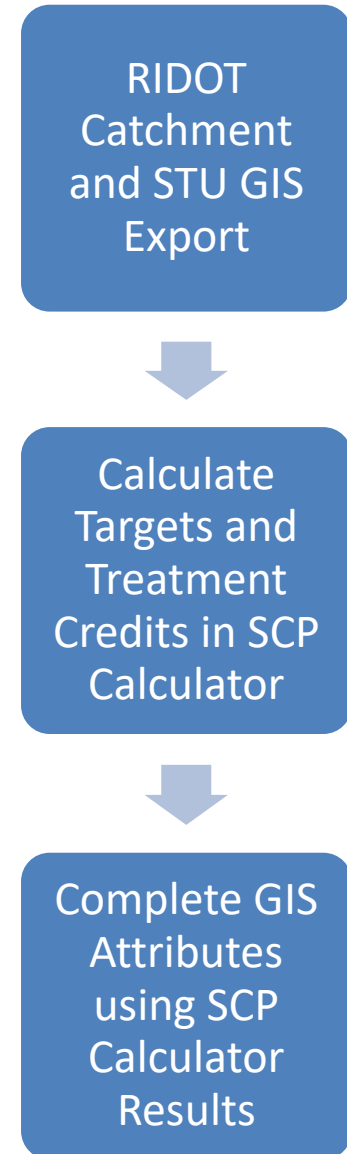
- The subwatershed is located in **Town names(s)**.
- The subwatershed is **X** acres and **X%** impervious.
- The general land uses within the subwatershed are **List general land uses**.

RIDOT Discharging Area

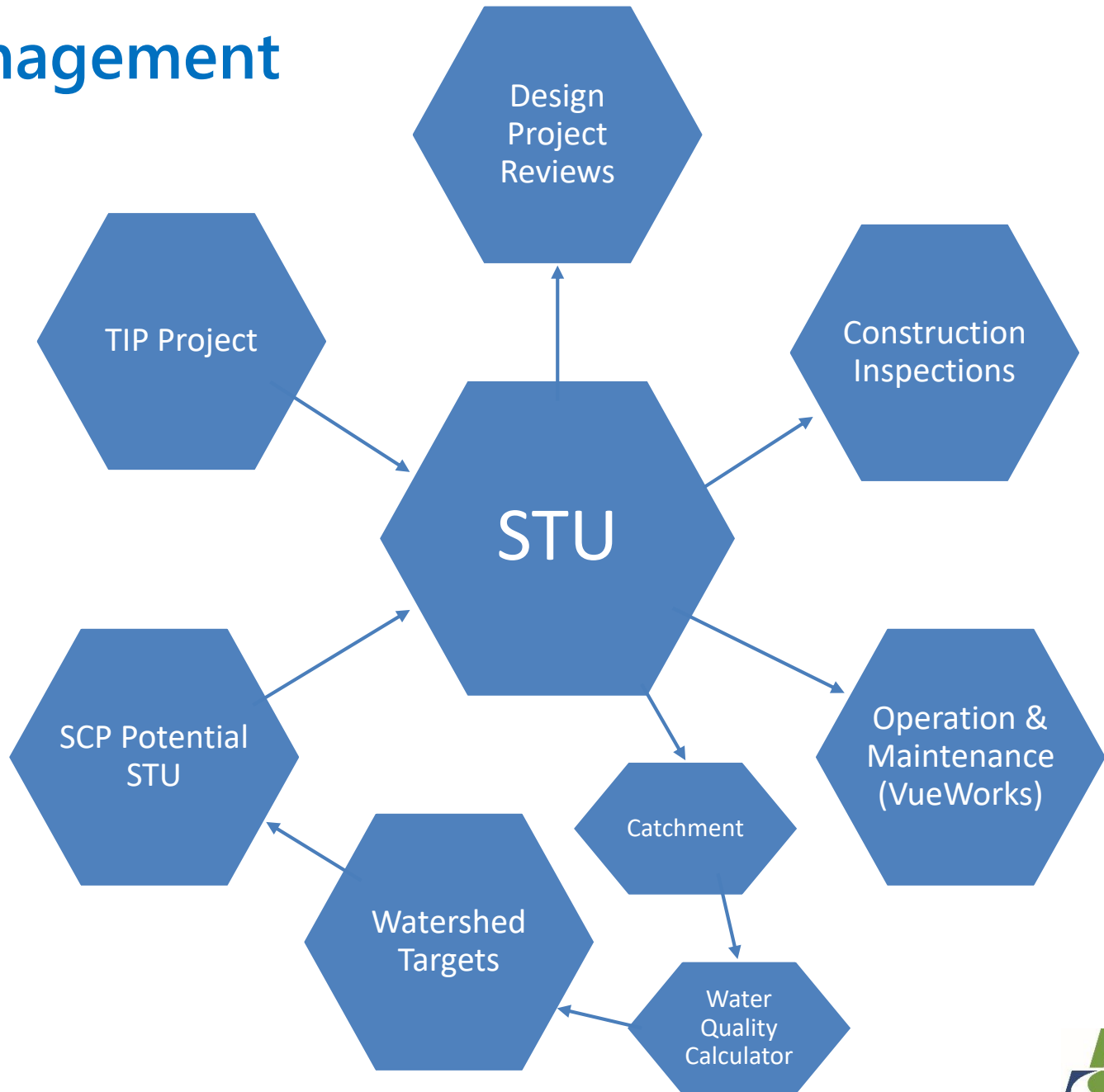
- RIDOT maintained property is **X** total acres and **X** impervious acres.
- No "Other RIDOT roadway" exist in this subwatershed **OR Note any road ownership discrepancies within the subwatershed**.
- No changes to the RIDEM-provided subwatershed boundary were identified. **OR** The subwatershed area **decreased / increased** from approximately **X** acres to **X** acres (**X** percent) due to changes identified during desktop review and site visits.
- There are **#/no** High Priority outfalls (Appendix 6).
- There are **#/no** Priority outfalls (Paragraph 20.b).
- There are **#/no** Priority outfalls (TMDL).
- There are **#/no** RIDOT MS4 discharge points for which RIDOT must provide a schedule for initiating IDDE inspections (Appendix 8).
- There are **#/no** MS4 outfalls for which RIDOT shall identify upgradient interconnections (Appendix 9).
- There are **#/no** incoming MS4 interconnections and **#/no** private incoming interconnections.

RIDOT SCP Calculator

- Excel-based tool
- Input tabs
 - Catchment layers (RIDOT and nonRIDOT)
 - STU layers (existing and potential)
- Calculation tabs
 - Watershed reduction target(s)
 - STU Water Quality Credits using EPA Curves
- Output tabs
 - STU water quality results
 - SCP Watershed treatment summary
- Expanding to include atypical structural and nonstructural controls

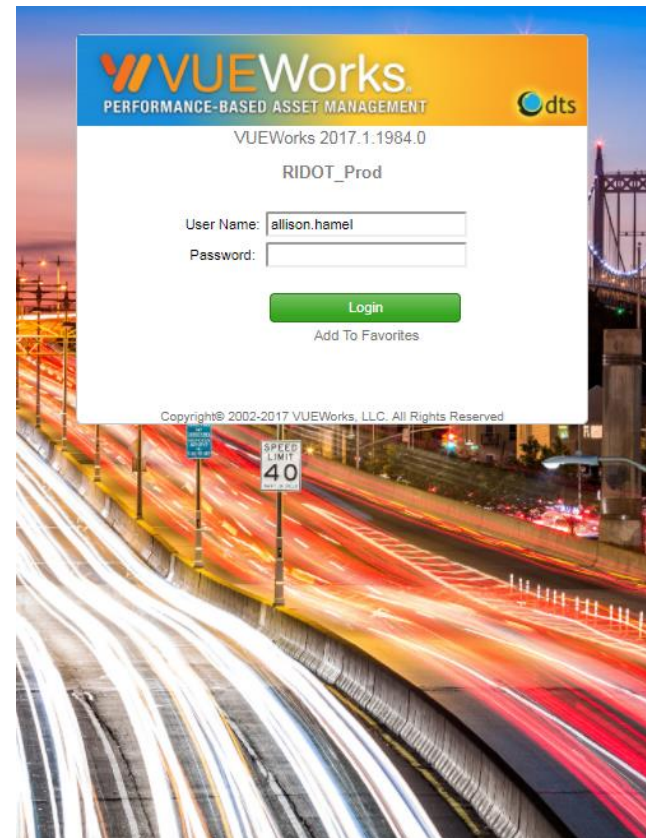


Data Management



Vueworks – Asset Management

- Statewide Inventory, Inspection, & Mapping
- Vueworks
 - ESRI GIS Platform
 - Service Request/Work Order based
 - MobileVue for fieldwork
 - Inspection/Condition Records
 - Maintenance
 - IDDE tracking



VueWorks_RIDOT

- Welcome, allison.hamel
- Document Link
- Service Requests
- Work Orders
- Resource Manager
- Building
- DCAMM Facilities
- Stormwater

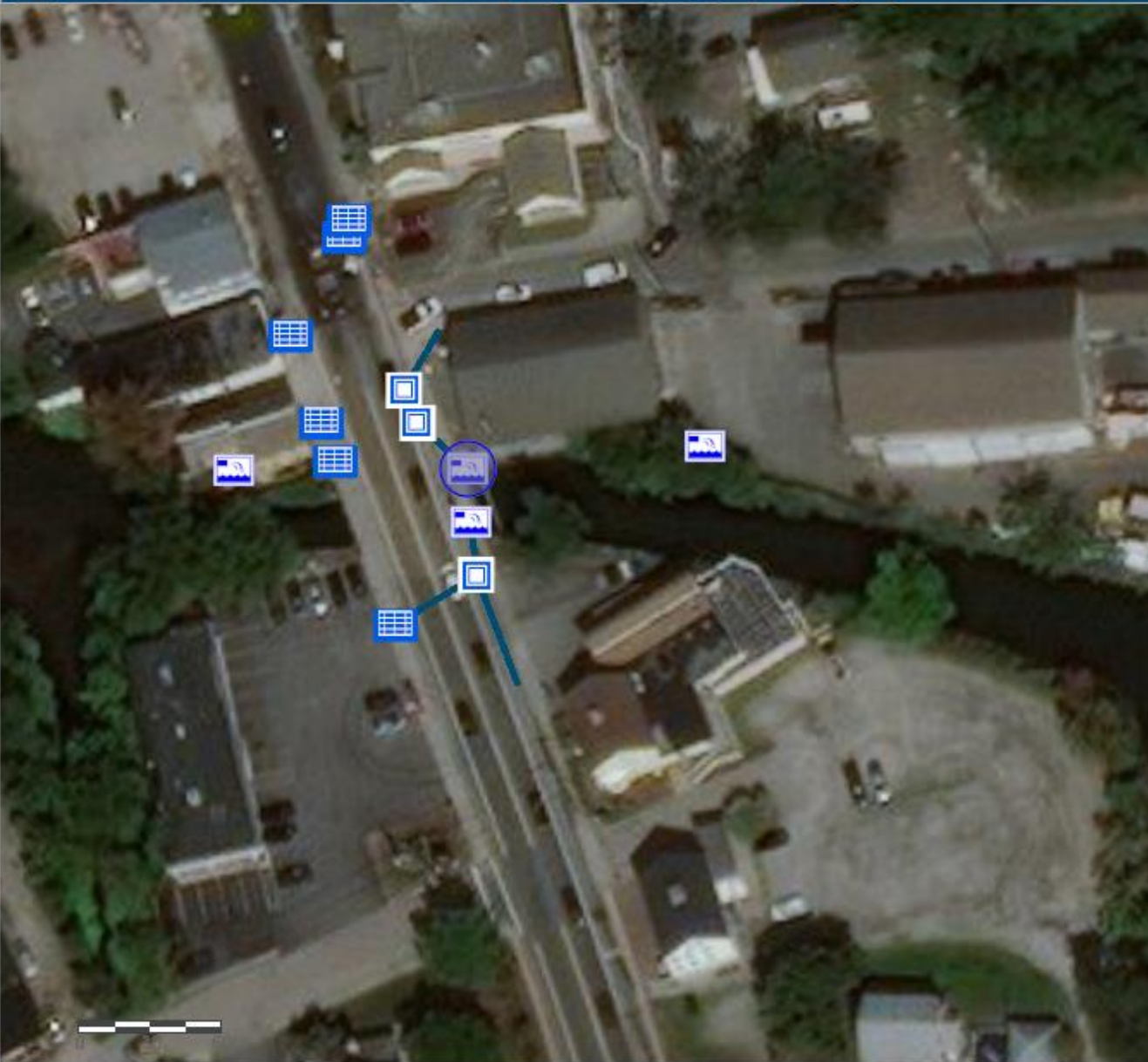
Outfalls: {8EFF7849-A8B4-452A-BBC2-493227EEA65B}

A Attributes

Save Cancel

GlobalID*	{8EFF7849-A8B4-452A-BBC2-493227EEA65B}
StructureID	17796
Outfall_ID	
Street_Name	US-1 POST RD
Location	
City_Town	WARWICK
Notes	
FeatureStatus	Active
CD_Priority	No CD Priority
IDDE_Exemption	Non Exempt
SCP_Group	Greenwich Bay Coastal
RIDEM_ID	none
Discharge	Direct

Map Scale: 1:1,128



ArcGIS Online Maps

<http://arcg.is/buvm>

ArcGIS ▾ SCP Figure 1/2

Details | Basemap |

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About | Content | Legend

Legend

Streams with TMDL Determination

- Impaired Rivers, TMDL
- Impaired Rivers, no TMDL

Lakes with TMDL Determination

- Impaired Lakes, TMDL
- Impaired Lakes, No TMDL

SCP Watersheds



RIDOT Maintained Roads



RIDOT Outfalls



RIDOT Catchment Area

- RIDOT Catchment Area

Town Boundaries



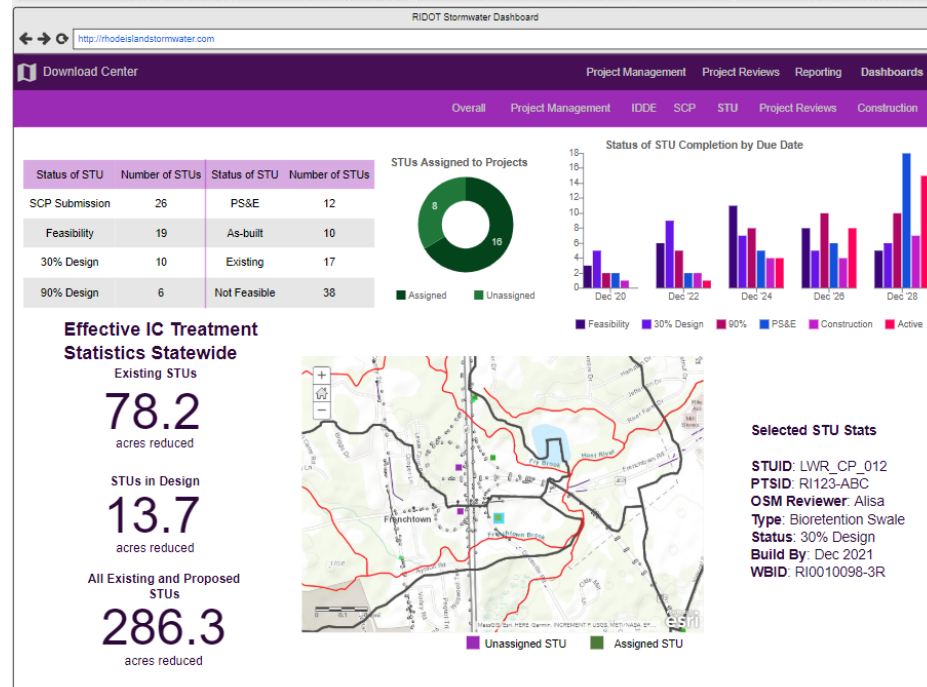
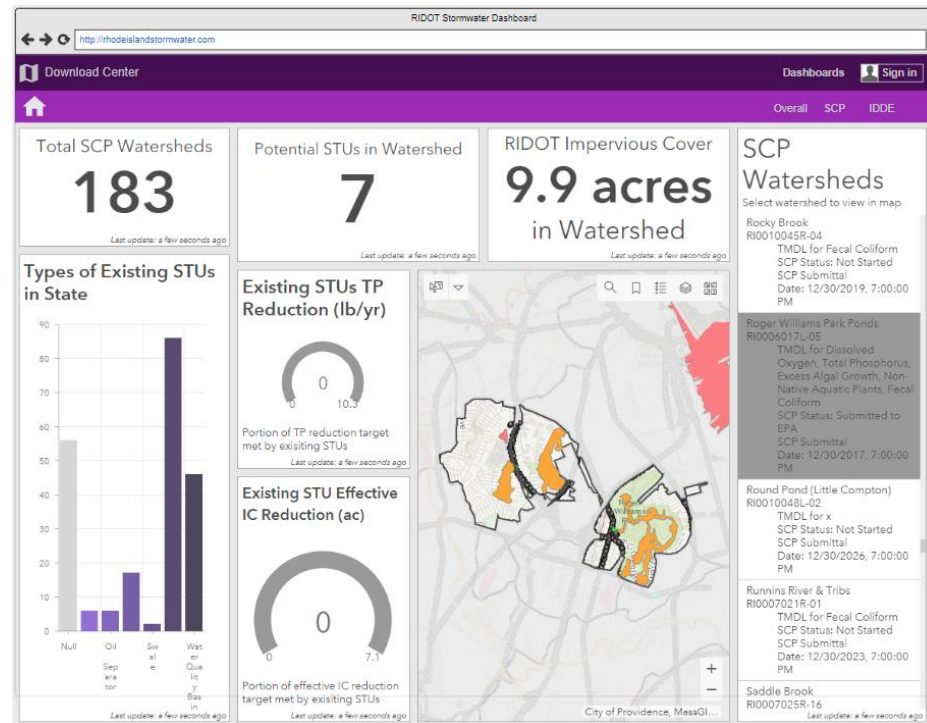
Enhanced Street Sweeping Area of Interest

- Enhanced Street Sweeping Area of Interest



Dashboards & Reporting

- Synthesize data for simple tracking of progress and reporting
- Pulling data from various sources
- Public facing components
- Interface for regulatory agencies



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