RHODE ISLAND DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
Office of Water Resources

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RIPDES SMALL MS4 ANNUAL REPORT
GENERAL INFORMATION PAGE

RIPDES PERMIT #RIR040036

REPORTING PERIOD: ☒ **YEAR 21**
Jan 2024-Dec 2024

OPERATOR OF MS4

Name: **Rhode Island Department of Transportation**			
Mailing Address: **Two Capitol Hill**			
City: **Providence**	State: **RI**	Zip: **02903**	Phone: **401-734-4829**
Contact Person: **Alisa Diaz Richardson**	Title: **Administrator, Environmental Division**		
	Email: **alisa.richardson@dot.ri.gov**		
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:		
	Email:		

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.

Robert T. Rocchio

Print Name Peter Alviti, Jr., P.E.

Print Title Director

Signature _____ Date 2/10/25

SPECIAL NOTE FOR RIDOT's MS4 ANNUAL REPORT

RIDOT entered a Consent Decree with the United States Environmental Protection Agency (EPA) and the US Department of Justice for non-compliance findings with the RIPDES Small MS4 General Permit. The Consent Decree was entered in US Federal Court and became effective on December 22, 2015 and will continue until all Remedial Measures have been completed by RIDOT, estimated to be in the year 2026. The Consent Decree and all associated RIDOT documents may be found on the RIDOT Stormwater Management Webpage at: http://www.dot.ri.gov/EnvironmentalDivision/Office_of_Stormwater.php

The Consent Decree requires RIDOT to comply with Remedial Measures identified for Illicit Discharge Detection and Elimination (IDDE), Post Construction Stormwater Management, Good Housekeeping, and Total Maximum Daily Loads (TMDLs).

As the Consent Decree also requires reporting, the Department of Environmental Management has agreed to allow RIDOT to reduce duplicative reporting and only report unique RIPDES Minimum Measure requirements in this Annual Report. Therefore, where Consent Decree Remedial Measures overlap with RIPDES Minimum Measures, the RIDOT will report in the Consent Decree Compliance Report only.

TABLE 1: RIDOT REPORTING MECHANISM

RIDEM RIPDES Minimum Measure	EPA Consent Decree Remedial Measure	RIDOT Reporting Mechanism
1. Public Ed/Outreach	N/A	Report in RIPDES Annual Report
2. Public Involvement	N/A	Report in RIPDES Annual Report
3. IDDE	C. IDDE	**ONLY report in Consent Decree Compliance Reports** (due 3/10 and 8/1); Provide RIDEM with reports.
4. Construction Site Stormwater Management	N/A	Report in RIPDES Annual Report
5. Post Construction Stormwater Management	D. Housekeeping/ O&M	**ONLY report in Consent Decree Compliance Reports** (due 3/10); Provide RIDEM with reports.
6. Good Housekeeping	D. Housekeeping/ O&M	**Report in Consent Decree Compliance Reports** (due 3/10) for catch basin and street sweeping efforts; Provide RIDEM with reports. **Report in RIPDES Annual Report** for other elements (stabilization of roadside shoulders, reducing floatables, Maintenance Facility SWPPPs and SPCCs).
TMDLs	A & B. TMDLs and Impaired Waters	**ONLY report in Consent Decree Compliance Reports** (due 3/10); Provide RIDEM with reports.
SRPWs & Impaired Waters	A & B. TMDLs and Impaired Waters	**ONLY report in Consent Decree Compliance Reports** (due 3/10); Provide RIDEM with reports.

Note that the BMP #s that are reported on in this Annual Report now refer to BMPs in RIDOT's most recently revised SWMPP (dated Dec. 2020, submitted to RIDEM 12/17/20* **[ATTACHMENT A])**.*

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. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: Heather Hamilton, Supervising Environmental Scientist

Phone: 401-479-6032 **Email:** heather.hamilton@dot.ri.gov

IV.B.1.b.1	Use the space below to provide a General Summary of activities implemented to educate your community on how to reduce stormwater pollution. For TMDL affected areas, with stormwater 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.

BMP 1A1. – STORMWATER INNOVATION CENTER AGREEMENT (Heather Hamilton)

RIDOT's Environmental Division (ED) is responsible for partnering with the Stormwater Innovation Center (SIC), to provide training to State and Municipal officials, and to create a coordinated statewide public outreach message. The target audience consists of State and Municipal officials, watershed groups, residents, and RIDOT personnel. Target pollutants included may be found toward the end of this section below.

An Agreement between these entities provides a five-year timeline and a budget for implementation. The Agreement was finalized and signed by all parties in 2020 and will continue through 2025. This Agreement is anticipated to constitute full compliance with Minimum Measure 1 of the current RIPDES General Permit during the term of the Agreement. **[ATTACHMENT 1A]**

A detailed summary of the SIC work is provided for 2024. **[ATTACHMENT 1B]**

RESPONSIBLE PARTIES - The SIC is the primary entity responsible for the implementation of RIDOT's Public Education and Outreach Program with significant support & coordination from RIDOT. The RIDOT ED is responsible for the Program Management of this Agreement.

EFFECTIVENESS - This Minimum Measure work has been extremely effective in a short time. SIC has continued to provide very high-quality training with support from RIDOT. Both local and Municipal officials nationally, and RIDOT personnel have received effective, appropriate, and useful training through this initiative. The SIC held the 5th annual public Rain Harvest Arts Festival at Roger Williams Park (www.stormwaterinnovation.org/rainharvestartsfestival) in September of 2024 for public education about water quality and stormwater.

YEAR 22 (2025) EXPECTED ACTIONS - SIC proposes to continue three community science and water quality monitoring programs. SIC will continue offering professional training opportunities including presentations, workshops, and webinars. RIDOT will also work to facilitate additional training for municipalities and RIDOT staff (i.e., stormwater BMP construction and maintenance, IDDE) through collaborations with the SIC. The 6th Annual Rain Harvest Arts Festival will be held in 2025.

IV.B.1.b.2	Use the space below to 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 stormwater program. Describe partnerships with governmental and non-governmental agencies used to involve your community.

BMP 1A2. – WOONASQUATUCKET RIVER WATERSHED COUNCIL AGREEMENT (Jennifer Ryan)

RIDOT's ED continued to collaborate with the Woonasquatucket River Watershed Council (WRWC) to initiate, fund, and manage stormwater improvement projects throughout the Woonasquatucket Watershed. Amendment Two **[ATTACHMENT 1C]** was executed on May 30, 2024, to provide an additional $2M and a four-year time extension to the existing Stormwater Retrofits to Green the Greenway Construction and Maintenance Agreement, originally signed in 2018. Part of the agreement includes stormwater education for the public and so far, has funded public green infrastructure tours to areas improved by the collaborative water quality projects and their River Ranger Program.

In 2024, WRWC continued to use the stormwater improvement sites as part of their educational suite of tours for the public and school children. WRWC is also showcasing collaborative projects in its presentations and on its website, which has helped to promote more projects in the watershed.

Project Charters for the Trash and Litter Abatement project, to work on trash education to address the Trash TMDL; and for the Preferred Equipment Resource project, which reduces stormwater runoff from rooftops and paved surfaces and constructed an outdoor classroom by the Manton Fish Ladder in Johnston were implemented **[ATTACHMENTS 1D and 1E]**. Also, several new projects initiated by WRWC are currently in design, including Bath Street Corner Park Green Stormwater Infrastructure (GSI), DeSoto Street GSI, Groden Center Greenway Access and GSI, and Smithfield High School GSI. WRWC/RIDOT Stormwater Partnership Projects – Status Update as of 12/17/24 provides more information. [**ATTACHMENT 1F]**.

RESPONSIBLE PARTIES – WRWC (Alicia Lehrer, Director) is the primary entity responsible for the implementation of the public education portion of this Agreement. The RIDOT ED is responsible for the Program Management of this Agreement.

EFFECTIVENESS - This Minimum Measure work has been effective by continuing to provide stormwater education within the urban neighborhoods where WRWC has completed projects.

YEAR 22 (2025) EXPECTED ACTIONS – RIDOT anticipates executing Project Charters, completing designs, and implementing construction for the four projects currently in design. Partnership Agreements for Construction, Maintenance and Stormwater Treatment Crediting will also be entered into between property owners and RIDOT. RIDOT ED will continue to collaborate with WRWC to implement the Trash & Litter Abatement and the Stormwater Retrofit Maintenance Project Charters.

BMP 1A3. – RHODE ISLAND STATE CONSERVATION COMMITTEE AGREEMENT (Jennifer Ryan)

RIDOT's ED continued to collaborate with the RI State Conservation Committee (RISCC) during 2024, to initiate, fund, and manage stormwater improvement projects, statewide. The Stormwater Improvement Partnership Construction and Maintenance Agreement between the RIDOT and RISCC became active in early 2019 **[ATTACHMENT 1G]**. RISCC continues to meet goals, working through the Eastern, Northern and Southern Conservation Districts.

In 2024, RISCC continued to support the Save the Bay (STB) Storm Drain Marking program through the Project Charter signed in 2020 **[ATTACHMENT 1H]**. This well-established program will continue to involve the public and increase education about stormwater and water pollution.

The first phase of the Green Gateway to Downtown Westerly and the Pawcatuck River, Main Street, Westerly project through the Project Charter signed in 2021 **[ATTACHMENT 1I**] is complete; the next phase will be coordinated by the Southern Conservation District.

Construction is nearly complete for the Truman Drive Green Infrastructure Parkway project in Woonsocket through the Project Charter signed in 2022 **[ATTACHMENT 1J]** where portions of underutilized travel lanes and along the road parking were removed. Instead of the impervious runoff previously contributing directly to the Blackstone River, the runoff is now redirected into greenway space and bioretention basins. This project provides credits for RIDOT's Stormwater Control Plan and educate the public through outreach and signage.

RISCC continued to support the Project Charter signed in May 2023 for a Stormwater Retrofit on Old Tower Hill Road in Wakefield **[ATTACHMENT 1K]** to restore and maintain existing bioswales on site and refurbish plantings in sidewalk planters. Continued maintenance will benefit local businesses and the community, in addition to treating stormwater.

RESPONSIBLE PARTIES – RISCC (Maria Mack, Chair) is the primary entity responsible for the implementation of the public education portion of this Agreement. The RIDOT ED is responsible for the Program Management of this Agreement.

EFFECTIVENESS - This Minimum Measure work has been effective by providing public outreach and signage for educating the communities and public.

YEAR 22 (2025) EXPECTED ACTIONS – RIDOT anticipates continuing with the projects started in previous years that are not complete and initiating additional stormwater projects to be funded, designed, and implemented during 2025.

BMP 1A4. - RHODE ISLAND SOUTHERN CONSERVATION DISTRICT (Jennifer Ryan)

RIDOT's ED continued to collaborate with the Rhode Island Southern Conservation District (RISCD) during 2024 through our five-year Stormwater Improvement Partnership Construction and Maintenance Agreement to scope, design, construct, operate and maintain green infrastructure stormwater treatment throughout all of Washington and Kent Counties. This Agreement **[ATTACHMENT 1L]**, executed on August 22, 2023, will include multiple individual projects consistent with stormwater treatment goals for improving the State's water quality.

RESPONSIBLE PARTIES – SRICD (Gina T. Fuller, District Manager) is the primary entity responsible for the implementation of the public education portion of this Agreement. The RIDOT ED is responsible for the Program Management of this Agreement.

EFFECTIVENESS - This Minimum Measure work is expected to effectively provide public outreach and signage for educating the communities and the public.

YEAR 22 (2025) EXPECTED ACTIONS – RIDOT anticipates continued progress on projects initiated during 2024. RIDOT ED is continuing to work on agreements with property owners and to further designs for the Oakland Beach Parking Lot project to install green stormwater infrastructure and low impact design at Oakland Beach; and the Pond Plaza Pavement Removal project to reduce impervious area and urban heat island effect in the parking lot of the Pond Plaza shopping center in Warwick. **[ATTACHMENTS 1M and 1N]**. Progress is also expected to be made on the next phase of the Green Gateway to Downtown Westerly and the Pawcatuck River, Main Street, Westerly in 2025.

BMP 1A5. – STORMWATER INNOVATION CENTER (Heather Hamilton)

See page 3 for details and SIC 2024 Annual Report information.

BMP 1A6. – THE UNIVERSITY OF RHODE ISLAND COASTAL RESOURCES CENTER/RHODE ISLAND SEA GRANT (Jennifer Ryan)

RIDOT's ED is actively working toward final execution of a new Cooperative Agreement to be entered into with The University of Rhode Island Coastal Resources Center (URI CRC) to pilot the existing MyCoast platform as a tool for upland flooding to capture site-specific visual data on stormwater flooding. The objective of this Agreement [**ATTACHMENT 1O**] is to build capacity to better understand how increased precipitation and subsequent flooding impact communities, their transportation roadways, and adjacent properties.

RESPONSIBLE PARTIES – URI CRC (Casey Tremper, Coastal Resilience Specialist) is the primary entity responsible for the implementation of the updated MyCoastRI website and phone app that incorporates the upland flooding tool; public outreach strategy and materials; pilot application to targeted areas; publicly accessible database of georeferenced photos and environmental data; and a strategy for phased expansion. The RIDOT ED is responsible for the Program Management of this Agreement.

EFFECTIVENESS - This Minimum Measure work is expected to effectively provide public outreach and for educating the communities and the public.

YEAR 22 (2025) EXPECTED ACTIONS – RIDOT anticipates URI CRC will collaborate with a working group and local "community scientists" to create the pilot application, in year 1; and will evaluate and update the app as needed. Public outreach strategies and materials will be used to expand the project into a second neighborhood.

BMP 1A7. – RHODE ISLAND GREEN INFRASTRUCTURE COALITION COLLABORATION (Jennifer Ryan)

RIDOT's ED continued to collaborate with the RI Green Infrastructure Coalition (GIC) to fund, prepare, and print interpretive stormwater signs. The signs are intended to increase public awareness and education about the benefits of properly managing stormwater. Any member organization of the GIC may request the signs that spread the "Nature at Work" stormwater message [**ATTACHMENT 1P**]. During 2024, 13 signs were provided to the following organizations (quantity in parentheses): Stormwater Innovation Center in collaboration with the City of Cranston (1), and Audubon Society of RI (5); and RIDOT Environmental and Maintenance Divisions (7) for identifying and promoting conservation mowing and pollinator locations. Signs are currently available in both English and Spanish.

RESPONSIBLE PARTIES – The GIC gathers the member organizations' requests. The ED serves as the Department's point of contact and clearinghouse for any new sign requests received by the GIC. RIDOT's Division of Highway & Bridge Maintenance Sign Shop fulfills the sign requests by fabricating them and the GIC distributes the signs back to the organizations.

EFFECTIVENESS - This Minimum Measure work has been extremely effective. Organizations have noted positive responses from communities where signs are installed.

YEAR 22 (2025) EXPECTED ACTIONS – RIDOT ED will continue to fund and fabricate these signs to improve public stormwater education.

BMP 1A8. – SAVE THE BAY (Jennifer Ryan)

See BMP 1A3. above for STB information.

BMP 1A9. – MUNICIPAL GOVERNMENT ENGAGEMENT SCPs (Allison Hamel)

See Consent Decree reporting for more information.

Check all topics that were included in the Public Education and Outreach program during this reporting period. For each of the topics selected, provide:
Target Audience(s): Public Employees, Residents, General Public, Businesses, Industries, Restaurants, Contractors, Developers, Agriculture, Other (describe);
Target Pollutant(s): (e.g. pet waste, fertilizers, Total Suspended Solids, etc.);
Strategies/Media: Direct Mailings, List Servs, Kiosks or Other Displays, Newspaper Ads or Articles, Public Events or Presentations, School Programs, Printed Materials, Direct Trainings, Videos, Webpage, Other (describe)

Topic	Target Audience(s)	Target Pollutant(s)	Strategies/Media
☒ Construction Sites	Public Employees, Contractors, General Public	sediment, total suspended solids, phosphorus, nitrogen, toxics (concrete washout, fuel leaks, etc.)	printed materials, presentations, online and in person trainings, webpages
☒ Pesticide and Fertilizer Application	Public Employees, Agricultural	nitrogen and phosphorus	webpages
☒ General Stormwater Management Info	Public Employees, Residential, Businesses, Contractors, Developers, General Public, Agricultural	trash, grass clippings (nutrients), toxics (auto care)	printed materials, public events, presentations, trainings, webpages, kiosk
☒ Pet Waste Management	Public Employees, Residential, General Public, Agricultural	bacteria	webpages
☒ Household Hazardous Waste Disposal	Public Employees, Residential, General Public	toxics	webpages
☐ Recycling			
☒ Illicit Discharge Detection and Elimination	Public Employees, Residential, General Public, Businesses	bacteria (sanitary waste connections)	printed materials, public events, presentations, trainings, webpages
☒ Riparian Corridor Protection/Restoration	Public Employees, Contractors, General Public	thermal pollution, phosphorus, nitrogen, bacteria	informal trainings, webpages
☒ Infrastructure Maintenance	Public Employees, Contractors, General Public	TSS, Nitrogen, phosphorus, TSS, pathogens, metals	printed materials, public events, presentations, trainings, webpages
☒ Trash Management	Public Employees, Residential, Businesses, General Public, Agricultural	bacteria (pet waste)	webpages
☐ Smart Growth			
☒ Vehicle Washing	Public Employees, Residential, Businesses, General Public	toxics (soap, oil, metals)	webpages
☒ Storm Drain Marking	Public Employees, Residential, Businesses, General Public	trash, bacteria (pet waste), toxics (paint, oil)	printed materials, public events, presentations, trainings, webpages
☐ Water Conservation			
☒ Green Infrastructure/Better Site Design/LID	Public Employees, Contractors, General Public	nitrogen, phosphorus, TSS, bacteria, runoff volume (impervious cover)	printed materials, public events, presentations, trainings, webpages, kiosk
☒ Wetland Protection	Public Employees, Contractors	thermal pollution, phosphorus, nitrogen, bacteria	printed materials, informal trainings, webpages
☐ Other:			
☐ None			

Additional Measurable Goals and Activities

Please list all stormwater training attended by your staff during the 2024 calendar year and list the name(s) and position of all staff who attended the training.

**Please note, other RIDOT staff (from Construction Management & Project Management) and RI municipalities, participated in RIDOT provided stormwater training such as RIDOT Consent Decree Awareness (3 RIDOT employees), Common Stormwater Violations & Tips to Avoid Them (2 RIDOT employees), StormwaterONE: Awareness (Level 1) (5 RIDOT employees), The Importance of Road Drainage (3 RIDOT employees), Roadway Drainage Webinar Series (1 RIDOT employee), and How to Choose the Correct BMPs for your Construction Site (4 RIDOT employees). Since 2018, the ED has been distributing a "Stormwater Resources for RIDOT Construction Projects" educational binder to REs within the Construction Management Division. The binder includes multiple stormwater factsheets (created in conjunction with URI NEMO), the RIPDES CGP, site specific SESC plan, inspection forms, JS and CS pages, RIDEM/CRMC permit information, general Consent Decree information, ED memos related to construction stormwater issues, and ED contact information. ED continued to distribute these binders to REs and review them on a one-on-one basis after pre-construction meetings. ED believes this smaller effort with individuals has improved both inspection completion/documentation and stormwater understanding by RIDOT REs.*

Environmental Division Training 2024

(Staff represents all levels of Environmental Scientists, Engineers, Landscape Architects, Project Managers, & Inspectors. See **ATTACHMENT 1Q**.)

Maintenance Division Training 2024

The ED continued with individualized training of Maintenance staff regarding IDDE, pollution prevention, and environmental topics. ED met with the Drainage Superintendent quarterly to review environmental and drainage issues. The ED forwarded the RIDEM Snow Disposal Policy to head staff at Maintenance Headquarters for distribution to all snow removal staff and contractors on 12/23/24. Stormwater/IDDE inspectors from the ED worked with Maintenance staff in the field as needed to assist with IDDE identification, pollution prevention, and other environmental topics.

RESPONSIBLE PARTIES - The SIC is the primary entity responsible for the implementation of RIDOT's Public Education and Outreach Program with significant support & coordination from the RIDOT and RIDEM. RIDOT's Office of Professional Development and Training also supports training efforts.

The ED is the primary RIDOT entity responsible for the implementation of stormwater management training within the RIDOT Construction Training Program and the RIDOT Maintenance Training Program.

EFFECTIVENESS - This Minimum Measure work has been extremely effective. Both municipal officials and RIDOT personnel have received effective, appropriate, and useful training through this initiative.

YEAR 22 (2025) EXPECTED ACTIONS - RIDOT expects to increase training efforts through the partnership with the SIC. Maintenance related trainings proposed include GI/STU/BMP maintenance at Roger Williams Park and IDDE (RIDOT received a camera truck in January 2020).

The RIDOT ED will continue to provide stormwater education to RIDOT Project Managers, Construction, Maintenance personnel and will continue to aid RIDEM and other State Agencies in stormwater education. StormwaterONE course offerings continue to be available to municipalities, RIDOT staff, and private consultants/contractors.

The Office of Professional Development and Training is committed to help meet RIDOT's professional development needs and will continue to offer learning opportunities and schedule training according to demand. The ED has been coordinating with the Chief of the Office of Professional Development and Training to provide stormwater and environmental training to all RIDOT staff.

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. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: Heather Hamilton, Supervising Environmental Scientist

Phone: 401-479-6032 **Email:** heather.hamilton@dot.ri.gov

IV.B.2.b.2.ii	Use the space below to 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.

BMP 2B1. - RIDOT STORMWATER PROGRAM WEBSITE (RIDOT ED & Communications Office)
RIDOT has continued to maintain the Stormwater Program web page on the RIDOT website.

In 2024, RIDOT completely redesigned the Environmental Division's website, including the Stormwater Program web page. The new page is located at http://www.dot.ri.gov/EnvironmentalDivision/Office_of_Stormwater.php

Throughout 2024, RIDOT continued to update the page as necessary to include new information from the EPA Consent Decree compliance efforts and MS4 compliance, including Stormwater Control Plans and MS4 Annual Reports. The updated webpage encompasses Natural Resource Unit/Stormwater/Compliance information and will work with RIDOT's Communication Office for updates to the website.

The primary on-line resource for general Public Education and Outreach information will continue to be the *"Know Where It Goes"* website, created under the original RIDOT/RIDEM/URI Public Education and Outreach Agreement. Although the agreement ended 12/31/19, RIDEM has continued regular website maintenance of the "Know Where It Goes" campaign and will continue to do so.

RESPONSIBLE PARTIES - The RIDOT Office of Communications, working with support from the ED, is the primary RIDOT entity responsible for the updating of the RIDOT Stormwater Program web page. The RIDEM is the primary entity responsible for the updating of the *"Know Where It Goes"* website.

EFFECTIVENESS - This Minimum Measure is an effective tool to provide general information about stormwater issues and RIDOT's efforts to manage stormwater.

YEAR 22 (2025) EXPECTED ACTIONS - RIDOT will continue to update the new RIDOT Stormwater Program page as well as the entire Environmental Division webpage. RIDEM will maintain the RI Stormwater Solutions website.

BMP 2B2. – ADOPT-A-HIGHWAY PROGRAM (Anastasia Wachter)
In 2024, the RIDOT Maintenance Division continued to support both the Adopt-a-Highway and the Sponsor-a-Highway programs.

http://www.dot.ri.gov/community/adopta/index.php

The **Adopt-A-Roadway** Program (formerly Adopt-a-Highway) 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 AAR Program are on secondary roads (no high-speed routes or interstates).

The **Adopt-A-Highway** Program (formerly Sponsor-A-Highway) is geared toward businesses and there are currently two companies that the Department does business with: Adopt-A-Highway Maintenance Corporation (AAHMC) and Adopt-A-Highway Litter Removal Service of America, Inc. (AAHLRSA). AAHMC and AAHLRSA are both based out of California, and they are active in many states. They both 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.

The **Adopt-a-Spot** Program is designed to encourage landscaping in small locations such as traffic islands, median strips, and other undeveloped areas near roads and intersections.

Measure Indicator	Data Source	CY24 Jan/Feb	CY24 Mar/Apr	CY24 May/Jun	CY24 Jul/Aug	CY24 Sep/Oct	CY24 Nov/Dec	SUM
Number of active Adopt-A-Roadway adoptees.	Vendor	50	52	62	52	56	71	343
Number of active Adopt-A-Highway sponsors.	Vendor	30	30	32	32	32	37	193
Number of Adopt-A-Highway litter bags collected during the month.	Sponsor	137	146	173	251	162	98	967
Number of Adopt-A-Roadway litter bags collected during the month.	Vendor	4	40	29	45	23	20	161
Adopt-A-Spot Permits (New & Renewed)	Vendor	7	23	24	17	11	22	104

RESPONSIBLE PARTIES - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT ED is provided as needed.

EFFECTIVENESS - RIDOT considers this BMP very effective in both public involvement and the reduction of floatables/trash along RIDOT roadways.

YEAR 22 (2025) EXPECTED ACTIONS - RIDOT Maintenance will continue this BMP.

BMP 2B3. – PRISON CREW CLEANUPS (William Whelan)

In 2024, the RIDOT Maintenance Division continued funding prison crew cleanups along RIDOT roadways.

- In 2024, RIDOT paid $101,655.00 for prison crews and picked up 9,938 bags of litter.

RESPONSIBLE PARTIES - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program; support from RIDOT ED is provided as needed.

EFFECTIVENESS - RIDOT considers this BMP very effective in both public involvement and the reduction of floatables/trash along RIDOT roadways.

YEAR 22 (2025) EXPECTED ACTIONS - RIDOT will continue this BMP.

BMP 2B4. – STORMWATER INNOVATION CENTER CITIZEN SCIENCE & INVOLVEMENT (Heather Hamilton)

The RIDOT's ED is responsible for partnering with the SIC, to provide a coordinated, statewide public outreach and involvement program. The target audience consists of State and Municipal officials, environmental & watershed groups, residents, the general public, and educational organizations.

[ATTACHMENT 1A] This Agreement between the SIC and RIDOT constitutes full compliance with Minimum Measure 2 of the RIPDES General Permit, with exception of the requirement for Public Notice of the Annual Report, during the term of the Agreement.

A detailed summary of SIC's work has been provided for 2024, including citizen science monitoring programs, professional trainings, rain harvest festival, and stormwater in schools program with school children. **[ATTACHMENT 1B]**

RESPONSIBLE PARTIES - The SIC is the primary entity responsible for the implementation of RIDOT's Public Education and Outreach Program with significant support & coordination from the RIDOT. RIDOT's ED is responsible for the Program Management of the SIC Agreement and Public Involvement.

EFFECTIVENESS - This Minimum Measure work has been extremely effective so far. Municipal officials, RIDOT personnel, and the general public have been involved in education opportunities. The SIC has provided very high-quality public experiences with support from RIDOT and other stakeholders.

YEAR 22 (2025) EXPECTED ACTIONS – RIDOT expects the SIC partnership/agreement to fully meet MM2, except the Public Notice Period requirement and will continue this effort.

BMP 2B5. – SAVE THE BAY PUBLIC INVOLVEMENT (Jennifer Ryan)

See BMP 1A3. for STB volunteer involvement information.

BMP 2B6. – RIDOT LINEAR STORMWATER MANUAL (Deirdre Paiva)

The RIDOT ED is currently revising the RIDOT Linear Stormwater Manual (February 2019), to reflect the Department's on-going development of standardized process and tools to streamline stormwater treatment design for all RIDOT projects. As RIDOT continues to develop the stormwater treatment requirements and MS4 permitting documentation, per the Consent Decree, the 2019 Linear Stormwater Manual implementation will need to be refined.

The revised Linear Stormwater Manual will reflect the updated STU prioritization and provide consistency with RIDOT's new electronic permit application form (referenced as eTool). A webinar training of the Linear Stormwater Manual will be developed for the design community as well as informational materials including fact sheets of what has been changed between the Linear Stormwater Manual 2019 and the updated version.

RIDOT ED has completed the development of eTool. To All Consultants (TAC) 0432 Stormwater eTool Rollout & Training was issued on January 18, 2024. TAC-0432 indicated that the implementation of eTool was required in preliminary and design contract by May 1, 2024. RIDOT continues to provide in-depth training to consultants, government agencies and internal department personal on the system.

RESPONSIBLE PARTIES – RIDOT ED Office of Stormwater Management continued revising the RIDOT Linear Stormwater Manual updates developing a stormwater treatment unit tier section. RIDOT continues to work with VHB, Inc. through the approved State of Rhode Island Master Price Agreement 489-Natural Resources Consultant Services to assist RIDOT with the update, support services and materials.

RIDOT Office of Stormwater solicited the services of VHB, Inc. through Stormwater Consent Decree Compliance Design & Support Services Work Order 5 Stormwater Permitting Submission Tool (eTool) for Phase 3 which includes eTool maintenance of the staging and production environments, application support activities, enhancements, and new features.

EFFECTIVENESS – eTool is being used to submit and track stormwater treatment designs to comply with both RIDOT Consent Decree and RIDEM permitting requirements. The approved output of eTool is designed to be used to submit RIDEM permitting applications when they apply. The revised Linear Stormwater Manual will incorporate the new worksheets, descriptions, and useful tools. The revised manual will also introduce the eTool and help track the development and implementation of STUs.

YEAR 22 (2025) EXPECTED ACTIONS – RIDOT anticipates the Linear Stormwater Manual update will be available March 2025.

Opportunities provided for public participation in implementation, development, evaluation, and improvement of the Stormwater Management Program Plan (SWMPP) during this reporting period. Check all that apply:

- ☒ Cleanup Events
- ☐ Comments on SWMPP Received
- ☒ Community Hotlines
- ☒ Community Meetings
- ☐ Other (describe)
- ☒ Storm Drain Markings
- ☒ Stakeholder Meetings
- ☒ Volunteer Monitoring
- ☒ Plantings

Additional Measurable Goals and Activities

BMP 2A1. & 2. – PUBLIC INVOLVEMENT GROUPS ENGAGED

The ED staff actively attends statewide & municipal meetings provided by municipalities, RIDEM, conservation groups, community groups, watershed groups, and other State agencies as part of MS4 RIPDES compliance, TMDL/Impaired Water compliance etc. Additionally, RIDOT invites stakeholders to participate and comment on Consent Decree and MS4 compliance initiatives (Stormwater Control Plan development, RIDOT Linear Manual, Capital Improvement Program, etc.).

2024 Coordination with RIDEM and other MS4s, Stakeholders, & Community Groups:

Audubon Society of Rhode Island
Blackstone Watershed Collaborative
Charlestown Land Trust
Coastal Resources Management Council
EnviroCert International
Environmental Business Council of Rhode Island
Farm Fresh Rhode Island
Federal Highway Administration
Green Infrastructure Coalition
Narragansett Bay Estuary Program
New England DOTs – Connecticut, Maine, Massachusetts, New Hampshire, Vermont
Northern Rhode Island Conservation District
Providence Parks and Recreation, Roger Williams Park
RI Dept. of Environmental Management
RI Infrastructure Bank
RI MS4s – Barrington, Coventry, Cranston, Cumberland, East Greenwich, East Providence, Johnston, Middletown, Narragansett, North Kingstown, Providence, Smithfield, Warwick, West Warwick
RI State Conservation Committee
Save the Bay
Smithfield School Department
South Kingstown Department of Public Works
Southern New England Program Network
Southern Rhode Island Conservation District
Stormwater Innovation Center
The University of Rhode Island Coastal Resource Center
US Environmental Protection Agency
Woonasquatucket River Watershed Council

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

Was the availability of this Annual Report and the Stormwater Management Program Plan (SWMPP) announced via public notice? ☒ YES ☐ NO	If YES, Date of Public Notice: January 31, 2025 – March 3, 2025 **[ATTACHMENT 2A]**
How was public notified: ☐ List-Serve (Enter # of names in List: _____) ☐ TV/Radio Notices ☒ Website ☒ Newspaper Advertising (Providence Journal) ☐ Town Hall posting ☐ Other: Enter Web Page URL: http://www.dot.ri.gov/EnvironmentalDivision/	
Was public meeting held? ☐ YES ☒ NO Date:	Where:
Summary of public comments received: N/A	
Planned responses or changes to the program: RIDOT's SWMPP was revised in December of 2020. The 2024 Annual Report reflects the associated BMP #s. The SWMPP will be updated as necessary in 2025.	

MINIMUM CONTROL MEASURE #3:
ILLICIT DISCHARGE DETECTION AND ELIMINATION (Part IV.B.3 General Permit)

The RIDOT has signed a Consent Decree with the US Environmental Protection Agency and Department of Justice. US Federal Court entered the Consent Decree and is effective as of December 22, 2015. The full Consent Decree may be viewed on the RIDOT Stormwater Management website at:
http://www.dot.ri.gov/EnvironmentalDivision/Office_of_Stormwater.php

The Consent Decree requires RIDOT to comply with Remedial Measures identified for Illicit Discharge Detection and Elimination (IDDE), Post Construction Runoff Controls, Good Housekeeping, and Total Maximum Daily Loads (TMDLs). The Consent Decree also requires Compliance Reporting. Where Consent Decree Remedial Measures cover RIPDES Minimum Measures, RIDOT will report in the Consent Decree Reports only.

PLEASE SEE RIDOT CONSENT DECREE ANNUAL REPORT FOR INFORMATION ON THIS MINIMUM CONTROL MEASURE. (Responsible Party: Allison Hamel)

Minimum Measure 3, IDDE: The Consent Decree Remedial Measure C covers all RIPDES Minimum Measure 3 requirements. No data is provided in this section of the RIPDES Annual Report.

MINIMUM CONTROL MEASURE #4:
CONSTRUCTION SITE STORMWATER 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. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: James Orr (Chief Engineer), Lawrence Bailey (Managing Engineer), Lori Fisette (Administrator of Project Management)

Phone: 401-222-2468 **Email:** james.orr@dot.ri.gov, lawrence.bailey@dot.ri.gov, lori.fisette@dot.ri.gov

IV.B.4.b.1	Indicate if the Sediment and Erosion Control and Control of Other Wastes at Construction Sites 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:** N/A If the Ordinance was amended in 2024, please indicate why changes were necessary and provide references to the amended portions of the local codes/ordinances.

RIDOT does not have authority to develop &/or adopt ordinances. RIDOT relies on the RIDOT Standard Specifications for Road and Bridge Design and Other Specifications, Contract Specific and Job Specific Specifications, and the RIPDES General Permit for Storm Water Discharge Associated with Construction Activity for compliance with this measure.

BMP 4A1. & 2. – SESC PLANS/SWPPPS & INSPECTIONS

The RIPDES General Permit for Storm Water Discharge Associated with Construction Activity requires sediment and erosion control and other waste control at construction sites for sites with disturbance of one acre or greater. As the RIPDES permit requirement is met by the Construction General Permit, RIDOT created standardized construction site Soil Erosion & Sediment Control (SESC) Plan templates, which have been in use at RIDOT since 2008 and have been made available to all MS4s via a training session in August 2009. Updated versions are available on RIDOT's public website. RIDOT created both a Large Site Soil Erosion & Sediment Control (SESC) Plan Template for projects with an acre or more of soil disturbance (required by the General Permit), and a Small Site SWPPP Template for projects with less than an acre of soil disturbance (not required by the General Permit, but enacted by RIDOT to further control erosion and sedimentation at our Construction sites). Updates and improvements to the SESC/SWPPP inspection templates are provided to RIDOT staff and Contractors via contracts, RIDOT website, and email. All projects with soil disturbance are subject to SWPPP/SESC Plan inspections, as per RIPDES CGP and/or RIDOT's MS4 Permit and policies.

BMP 4A3. – REVISED SPECS 206-212

As previously reported, RIDOT revised Specification Sections 206-212 [**ATTACHMENT 4A**] in 2022 and the new specifications were incorporated into the newly revised RIDOT Standard Specifications for Road & Bridge Construction which can be found here:
https://www.dot.ri.gov/business/bluebook/docs/Blue_Book_08_2023.pdf

BMP 4A4. – COMPOST FILTER SOCK AND LOD TAC-0440

On 6/27/24 RIDOT circulated TAC-0440 which advised plan designers how to properly define LOD and properly plan for CFS. RIDOT observed that CFS was installed along the entire LOD regardless of if the specific location required erosion control (i.e. top of slope). Designers are instructed to depict the LOD separately from the proposed CFS locations where it is warranted for its intended use.

BMP 4A5. – PAPA REQUIREMENTS (*Kyle Gagnon, kyle.gagnon@dot.ri.gov)
RIDOT's Engineering/Permit Office issues permits for private construction on/near/impacting RIDOT roadways. They include Utility Permit Standard Conditions in all issued utility permits. Those conditions include language about installing appropriate erosion controls and stormwater impacts. Erosion controls are also included in all approved plans.

IV.B.4.b.6	Use the space below to describe actions taken as a result of receipt and consideration of information submitted by the public.

RIDOT's Executive Office includes a Constituent Services Office. The purpose of the 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 Constituent Services Office will also respond to any questions or concerns the public may have regarding the Department of Transportation. The Office may be contacted via phone (1-844-DOT-ROAD), email, or the RIDOT website: https://www.dot.ri.gov/about/help.php.

RIDOT received 128 drainage related calls/complaints from the public and the ED/Maintenance Division responded to each of them.

RESPONSIBLE PARTIES - RIDOT Office of Constituent Services is the primary RIDOT entity responsible for the implementation of this program.

EFFECTIVENESS - RIDOT considers this effort effective, but not well measured. Construction is not yet integrated into VUEWorks.

YEAR 22 (2025) EXPECTED ACTIONS - RIDOT will continue this effort. The ED can now better track any internal or public complaints within its new permit/project tracking database.

IV.B.4.b.8	Use the space below to 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 Stormwater 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.

As the owner, RIDOT does not refer its construction site operators to RIDEM for non-compliance issues. RIDOT must inspect its own sites and address non-compliance issues from within. RIDEM's RIDPES Program is responsible for inspecting RIDOT construction sites for compliance with the CGP and may also rely on RIDOT's documentation of SESC inspections. RIDOT's Construction Management Unit & Environmental Division have the ability to assess charges against the Operator, should they violate RIDOT's Specifications

- **RIDOT PTSID 0013T Bridge Group 14- RT 99 CUM, LIN:** RIDEM FWW 21-0314, RIPDES 102289: On 1/18/24 RIDOT ED was notified that a neighboring property owned by Cumberland Quarry had a silt stock pile that was not properly protected and eroded in to RIDOTs project area. The Cumberland Quarry quickly cleaned up the sediment and secured their stockpile properly.
- **RIDOT PTSID 2601R Bridge Group 17B – BUR:** RIDEM FWW 22-0460: On 2/15/24 RIDOT ED received a complaint from RIDEM regarding a lack of erosion controls, a stockpile eroding towards the river bank, and debris that was not secured properly. RIDOT ED provided the information to RIDOT's Construction Management Unit and to the contractor (Manafort). The contractor addressed the areas of concern and RIDEM considered the concerns resolved on 6/10/24.
- On 3/7/24 RIDOT was notified of a recurring flooding/sediment deposition issue on Route 7 in Smithfield. The complaint related to stormwater exiting a basin on private property (Smithfield Peet, FWW 22-0441) moving under Route 7 in a RIDOT culvert and exiting to wetlands adjacent to Route 7. The complaint stated that stormwater was not flowing through this path properly and instead moving up and over Route 7 and flowing in to the parking lot of the complainant (Fiberglass Fabricators) and depositing sediment in their parking lot. RIDOT inspected the area of concern and provided the contacted information for our maintenance facility to address and monitor flooding concerns.

- **RIDOT PTSID 2606A Statewide Systemic Safety Improvements:** On 7/29/24 RIDOT Constituent Services received a complaint from a member of the public regarding ADA sidewalk improvements along Allen's Ave in Providence. The complaint stated that debris was left on-site, and grass was left to grow tall within the project area. RIDOT's Resident Engineer and the contractor were notified and resolved the complaint of debris on 8/1/24. The material referenced in the complaint was work material actively being used by the contractor. The grassed areas were installed per plan and the City of Providence is responsible for grass maintenance.
- **RIDOT PTSID 2604X Pavement Improvements – WAR:** RIDEM FWW 21-0026: On 8/15/24 RIDOT received a warning letter from RIDEM regarding erosion control devices that were not functioning properly and sediment that had exited the LOD and moved towards wetlands. RIDOT provided the information to the contractor (D'Ambra). The contractor completed the silt fence repairs and sediment removal on 8/16/24. The complaint was considered resolved by RIDEM on 8/27/24.
- Blackstone River Canal Case No. OCI-FW-24-108: On 11/19/24 RIDOT received a wetland violation regarding sediment entering the Blackstone River Canal related to stormwater flow on River Road in Lincoln. RIDEM stated that after RIDOT repaved/regraded River Road, stormwater runoff cut through a private property and eroded the slope entering the Canal. RIDOT mobilized our drainage crew and maintenance crew to inspect the areas of concern. RIDOT has installed a berm to prevent additional flooding and is in the process of coordinating the removal of sediment from the canal.
- I-295 Southbound Rest Area Case No. OCI-SW-24-70: On 12/2/24 RIDOT received notification from RIDEM that illegal dumping had occurred at the I-295 SB Rest Area involving several 55-gallon drums of caustic substances, piles of household waste, and a tire pile that caught fire. RIDOT Maintenance Division was notified and began the process to clean up the area on 12/3/24.
- **RIDOT PTSID 2605F Bridge Group 13E – West River:** RIDEM RIPDES RIG85G058: On 12/4/24 RIDOT received a Significant Noncompliance (SNC) Letter from RIDEM regarding dewatering at the West River bridge replacement project. RIDOT ED shared the violation with the Project Manager. The dewatering operation was decommissioned and will resume in spring with a better treatment system.

SECTION II. A - Plan and SWPPP/SESC Plan Reviews during Year 21 (2024), 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. **Part IV.B.4.b.4:** Review 100% of plans and SWPPPs/SESC Plans for construction projects resulting in land disturbance of 1-5 acres, not reviewed by other State programs, must be conducted by adequately trained personnel and incorporate consideration of potential water quality impacts.

# of Construction Applications Received: RIDOT Construction does not receive or review applications, we propose/initiate projects. RIDOT's Engineering/Permit Office issued 63 physical alteration permits to RIDOT property/roadways and performed inspections at each location.

# of Construction Reviews Completed: ED completed reviews on all projects at least at the scoping level, and then in more detail depending on the proposal (this includes all projects, not just 1-5 acres of disturbance), including physical alteration permit submission reviews, stormwater reviews for construction plans, other permitting, scoping, etc. Consultants create SWPPP/SESC plans based on RIDOT/RIDEM template.

Summary of Reviews and Findings, include an evaluation of the effectiveness of the program.

All RIDOT projects that require SESCs due to land disturbance activities of at least an acre require RIDEM permitting; in 2024 RIDOT reviewed all proposed projects for Stormwater & Consent Decree-related issues during various stages of design (from Scoping to PS&E Contracts)**.** See Section IV.B.4.b.1 above for details regarding policies/procedures for ensuring oversight, as RIDOT does not issue permits for its construction projects.

Identify person(s)/Department and/or parties responsible for the implementation of this requirement:
RIDOT ED (permit reviews/applications, recommendations), Project Management (final decisions for proposals, apply for permits)

Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained":
See "Environmental Division Training 2024" in MCM #1, Section II. Private contractors have taken American Stormwater Institute, LLC Qualified Construction Stormwater Inspector training to be qualified. Qualified private consultants create the SWPPPs and SESC Plans.

BMP 4B1. – UTILITY PERMITS IN STATE ROADS (*Kyle Gagnon, kyle.gagnon@dot.ri.gov)

See 4A 4. above for information included in the permit process. If a complaint is received, the Engineering/Permit Office inspects the site. Inspectors are assigned to each utility permit and are responsible for checking erosion/sediment controls.

BMP 4B2. – ENVIRONMENTAL DIVISION PERMIT TRACKING (Jennifer Ryan)

In 2019, the ED (Natural Resources Unit, Landscape Architecture Unit, and Office of Stormwater Management) created a permit tracking system for environmental permits and project progress. This has improved compliance efforts and provided better information to those in Construction and Project Management as well. Staff began using the live web-based site in December 2020 and continues to improve the database itself, besides utilizing it for tracking things like permit applications and approvals, agency commitments, SWPPP inspections, project start and end dates, NOT & SOC submissions to RIDEM, Final Inspections, and issues to follow up on. In 2024, additional enhancements were implemented to include improved data integrity and functionality related to records with multiple project locations. (https://ridotstormwaterpermits.azurewebsites.net/home)

BMP 4C1. PLAN REVIEWS

RIDOT reviews all plans on many levels. The ED attends scoping meetings and reviews plans for MS4 issues prior to projects being finalized and advertised for construction.

BMP 4C2. – SWPPP PLAN DEVELOPMENTS & REVIEW

See BMP 4A1., 2., 3. for more details

SECTION II.B - Erosion and Sediment Control Inspections during Year 21 (2024), Parts IV.G.2.n and 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.) Inspections must be conducted by adequately trained personnel.

# of Active Construction Projects: **154**	
# of Site Inspections: **Unknown (1,000+)**	# of Complaints Received: **2**
# of Violations Issued: **1**	# of Unresolved Violations Referred to RIDEM: **0**

Summary of Enforcement Actions, include an evaluation of the effectiveness of the program.

RIDOT does not have the authority to take enforcement actions but has increased efforts to educate Construction Management field staff, document non-compliance and improve communication with REs and private contractors to take corrective actions on site in a timely manner. New Specs. 212 include failure to comply charges as a consequence/deterrent to Contractors to follow the SWPPP/SESC Plan.

BMP 4E 1. – REGULAR SWPPP INSPECTIONS

RIDOT requires SESC/SWPP inspections to occur at least weekly and post-storms on all its sites that have potential to introduce pollutants into the MS4 or which have land disturbance (including sites with less than 1 acre of disturbance that are not under the RIPDES CGP). The RIPDES CGP and RIDOT's internal small-site stormwater pollution prevention plan requires weekly and post-storm inspections. Contractors are now responsible for the inspections themselves. RIDOT construction staff directs the Contractor to conduct the required corrective actions and submits documentation to the ED.

BMP 4E 2. – PROGRAM AUDITS

Since 2018, the ED has conducted its own audits of many construction projects, regardless of whether they were "large" or "small" sites. ED continued with audits during 2024. In December of 2024, the ED sent out fact sheets to Construction Management for distribution to all REs, Inspectors, and Area Engineers to remind them of construction site winter shutdown and soil stabilization requirements [**ATTACHMENT 4B**]. There was special attention toward sites that had winter shutdown periods to ensure that they were stabilized or had appropriate controls installed and maintained prior to Contractors leaving the site for the winter season.

During 2024, ED continued to use the new inspection format (from 2018) to better assign, inspect, track, compile, and report stormwater inspections. ED uses iPads and an inspection application (iAuditor), specifically tailored for RIDOT SESC/SWPP plan inspections. Inspectors may now instantly document site conditions, email reports (including photos), and track corrective actions. Data is instantly compiled within the app to help ED determine where to focus compliance efforts. This effort also provides faster communication between ED and the Construction Management Division after construction site audits, with the hopes of improving site compliance. All submitted inspections are documented in the ED permit tracker when received.

During 2025, the ED will continue to audit projects that have the potential for greatest environmental harm or compliance issues.

RIDOT conducts Final Inspections on every construction project. Staff from the Finals, Maintenance, Design, Traffic, Materials, Construction, Stormwater, and Environmental sections attend, if applicable to their office. If any drainage work, pollution prevention, BMP, or proper stabilization issues are noted as not being correctly installed/established, the contractor is notified of this as part of a "Punch List" through Construction Management and must remedy the issue before Final Acceptance is granted. Final payment is based on this Final Acceptance.

In 2024, there were 62 RIDOT Final Inspections. [**ATTACHMENT 4C**] RIDOT ED attended and provided comments for the 33 highlighted applicable final inspections. RIDOT staff attended all 62 Final Inspections in 2024.

Identify person(s)/Department and/or parties responsible for the implementation of this requirement:

RESPONSIBLE PARTIES - RIDOT ED is the primary RIDOT entity responsible for the implementation of this program, with support by Construction Management for implementation of compliance and inspections.

EFFECTIVENESS - RIDOT considers this effort effective, however continued work is necessary to improve results. Although ED has increased inspections during and after projects, and worked with Construction Management, RIDOT has failed to implement all the required procedures on its projects that require inspections.

MINIMUM CONTROL MEASURE #5:
POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REVELOPMENT
(Part IV.B.5 General Permit)

The RIDOT has signed a Consent Decree with the US Environmental Protection Agency and Department of Justice. The Consent Decree was entered by US Federal Court, and is effective as of December 22, 2015. The full Consent Decree may be viewed on the RIDOT Stormwater Management website at:
http://www.dot.ri.gov/about/stormwater.php

The Consent Decree requires RIDOT to comply with Remedial Measures identified for Illicit Discharge Detection and Elimination (IDDE), Post Construction Runoff Controls, Good Housekeeping, and Total Maximum Daily Loads (TMDLs). The Consent Decree also requires Compliance Reporting. Where Consent Decree Remedial Measures cover RIPDES Minimum Measures, RIDOT will report in the Consent Decree Reports only.

PLEASE SEE RIDOT CONSENT DECREE ANNUAL REPORT FOR INFORMATION ON THIS MINIMUM CONTROL MEASURE. (Responsible Party: Joseph Baker)

Minimum Measure 5, Post Construction Stormwater Management: The Consent Decree Remedial Measure D covers all RIPDES Minimum Measure 5 requirements. No data is provided in this section of the RIPDES Annual Report.

MINIMUM CONTROL MEASURE #6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS (Part IV.B.6 General Permit)

The RIDOT has signed a Consent Decree with the US Environmental Protection Agency and Department of Justice. The Consent Decree was entered by US Federal Court, and is effective as of December 22, 2015. The full Consent Decree may be viewed on the RIDOT Stormwater Management website at:
http://www.dot.ri.gov/about/stormwater.php

The Consent Decree requires RIDOT to comply with Remedial Measures identified for Illicit Discharge Detection and Elimination (IDDE), Post Construction Runoff Controls, Good Housekeeping, and Total Maximum Daily Loads (TMDLs). The Consent Decree also requires Compliance Reporting. Where Consent Decree Remedial Measures cover RIPDES Minimum Measures, RIDOT will report in the Consent Decree Reports only.

PLEASE SEE CONSENT DECREE ANNUAL REPORT FOR INFORMATION ON: CATCH BASIN INVENTORY, INSPECTION, MAINTENANCE MINIMUM CONTROL MEASURE AND ANNUAL STREET SWEEPING MINIMUM CONTROL MEASURE (Responsible Party: Allison Hamel)

Minimum Measure 6, Maintenance Facility SWPPP/Pollution Prevention and Winter Operations: *This report documents the RIDOT's measurable goals in 2024 that are NOT part of the EPA Consent Decree. RIPDES Applicable sections are highlighted in yellow.*

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. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: Robert Rocchio, Acting State Highway Maintenance Operations Engineer

Phone: 401-563-4411 **Email:** robert.rocchio@dot.ri.gov

IV.B.6.b.1.i	Use the space below to describe activities and actions taken to identify structural BMPs (these include but are not limited to: retention/detention basins, vegetated treatment, infiltration and pre-treatment controls, etc.) 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. **Do you have an inventory of MS4-owned/operated BMPs?** ☐ YES ☐ NO **Total # of MS4-owned/operated BMPs** (does not include CBs or MHs):_____
Reporting of this effort is part of the Consent Decree Compliance report.	
IV.B.6.b.1.ii	Use the space below to 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. **# of MS4-owned/operated BMPs inspected in 2024**:_____ **# of MS4-owned/operated BMPs maintained/cleaned in 2024**:_____ **# of MS4-owned/operated BMPs repaired in 2024**:_____ Does your municipality/MS4 have a system for tracking: a. Inspection schedules of MS4-owned BMPs? ☐ YES ☐ NO b. Maintenance/cleaning schedules of MS4-owned BMPs? ☐ YES ☐ NO c. Repairs, corrective actions needed? ☐ YES ☐ NO d. Complaints? ☐ YES ☐ NO Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track stormwater BMPs, inspections, and maintenance? ☐ YES ☐ NO
BMP IDs 6F, 6G, 6H, 6I, 6J, 6M, 6N, 6O, 6P, 6Q, 6R **Reporting of this effort is part of the Consent Decree Compliance report.**	
IV.B.6.b.1.iii	Use the space below to 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. **Total # of CBs within regulated area (including SRPW and TMDL areas):** _____ **# of CBs inspected in 2024:** _____ **% of Total inspected:** _____ **# of CBs cleaned in 2024:** _____ **% of Total cleaned:** _____ If determined, approximate quantity of sand/debris collected by cleaning of catch basins:_____ Location used for the disposal of debris:_____ Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track the inspections and cleaning of catch basins? ☐ YES ☐ NO
BMP ID 6K, 6L – ANNUAL CATCH BASIN CLEANING **Reporting of this effort is part of the Consent Decree Compliance report.**	
IV.B.6.b.1.iv	Use the space below to 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.

BMP 6D 1., 2., 3., 4. – ROAD SHOULDER STABILIZATION EFFORTS

The ED continues to work with Construction Management to improve shoulder stabilization by attending Final Inspections and commenting on site stabilization for inclusion in RIDOT punch lists. These punch lists provide a directive for contractors to complete contract requirements if they have not been completed by the end of the project. ED also works with Construction Management to stabilize disturbed areas during construction prior to the end of a project (such as prior to the winter shutdown period- See **ATTACHMENTS 6A, 6B, and 4B** for memos

from the ED distributed to Construction Management and a winter shutdown fact sheet provided to Construction Management). Regular involvement in Final Inspections has improved stabilization practices, however many projects continue to have a Final Inspection after the seeding date and therefore, are not stabilized until the following spring.

In 2025, ED will continue to attend Final Inspections and assist Construction Management with proper stabilization practices during construction projects. We will continue to increase efforts to have sites stabilized prior to the winter shutdown period. ED will perform winter shutdown audits in early 2025 to ensure stabilization is effective.

IV.B.6.b.1.v	Use the space below to 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.
Reporting of this effort is part of the Consent Decree Compliance report.	
IV.B.6.b.1.vi	Use the space below to indicate if all streets and roads within the urbanized area were swept annually and if not indicate reason(s). The operator is required to sweep all streets and roads within the regulated area annually unless a lesser frequency can be justified based on at least two consecutive years of data indicating the street or road does not require annual sweeping. Evaluate appropriateness and effectiveness of this requirement. **Total roadway miles within regulated area (including SRPW and TMDL areas): _____** **Roadway miles that were swept in 2024: _____ % of Total swept: _____** Type of sweeper used: ☐ Rotary brush street sweeper ☐ Vacuum street sweeper If determined, approximate quantity of sand/debris collected by sweeping of streets and roads:_____ Location used for the disposal of debris:_____ Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track the annual sweeping of streets and roads? ☐ YES ☐ NO
Reporting of this effort is part of the Consent Decree Compliance report.	
IV.B.6.b.1.vii	Use the space below to describe activities and actions taken for controls to reduce floatables and other pollutants from the MS4. Evaluate appropriateness and effectiveness of this requirement.
Please see BMP ID 2B – Public Involvement	
IV.B.6.b.1.viii	Use the space below to 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. Do you have a system for tracking actions to remove and dispose of waste? ☒ YES ☐ NO

BMP 6H 1. – SEDIMENT & STREET SWEEPING MATERIAL MANAGEMENT

In July 2020 GZA GeoEnvironmental, Inc. completed the *RIDOT Highway and Bridge Maintenance Division Catch Basin Sediment and Street Sweeping Material Management Plan* for the management of waste generated by associated highway maintenance activities [**ATTACHMENT 6C**]. Construction was completed in 2024 on a new Sediment Management Facility off Jefferson Blvd in Warwick, RI.

BMP 6H 2. – MAINTENANCE FACILITY SWPPPS/SPCCS

RIDOT Maintenance facilities have Stormwater Pollution Prevention Plans and/or Spill Prevention Plans (as appropriate) which require the proper storage and removal of waste. (Plans submitted to RIDEM RIPDES w/ 2006 Annual Report; Updated Reports submitted with 2012 Annual Report). Catch basin and street sweeping wastes are disposed of at the Johnston Rhode Island Resource Recovery landfill following applicable state regulations and guidance. Construction was completed in 2024 on a new Sediment Management Facility off Jefferson Blvd in Warwick, RI. In 2011, the SWPPPs and SPCCs were evaluated and updated.

Beginning in 2025, RIDOT ED will implement electronic SWPPP and SPCC monthly and annual facility inspection reports using VUEWorks. VUEWorks will assign the inspection task to a proper facility contact and give a deadline to perform the inspections. ED will be visiting each facility to train employees and perform an inspection.

BMP 6H 3. – CONSTRUCTION SPECIFICATIONS

RIDOT Construction projects must adhere to the RIDOT Standard Specifications ("Blue Book"), which requires the proper and legal disposal of waste from all RIDOT Construction sites. For a Contractor to get paid for the item, proper documentation and record-keeping is required.

RESPONSIBLE PARTIES - RIDOT Maintenance and Construction are the primary RIDOT entities responsible for the implementation of this program.

EFFECTIVENESS - RIDOT considers this measure effective.

YEAR 22 (2025) EXPECTED ACTIONS - RIDOT Maintenance & Construction will continue this program.

IV.B.6.b.2	Use the space below to describe any operations under the MS4's legal control, including activities and facilities, that have the potential to introduce pollutants into stormwater runoff, such as pesticide/herbicide/fertilizer application, chemical and waste handling and storage, vehicle fueling, vehicle washing, vehicle maintenance, sand/salt storage, snow disposal, facilities such as public works facilities with maintenance and storage yards, waste transfer stations, municipal wastewater and water treatment facilities, and municipal parking owned and operated by the MS4. Does your MS4 have any salt piles, or piles containing salt, used for deicing? ☒ YES ☐ NO If yes: Are these piles covered to prevent exposure to rain, snow, snowmelt and/or runoff? ☒ YES ☐ NO If yes, check the type of cover used: ☒ Weatherproof permanent structure/shelter ☒ A temporary, secured, durable, waterproof covering (e.g., tarpaulin, polyethylene, polyurethane) Are these piles located on impermeable surfaces? ☒ YES ☐ NO

2024 SALT BARN STATUS:

RIDEM and RIDOT entered into a Consent Agreement No. WP07-106 **[ATTACHMENT 6D]** in 2009 regarding standard operating procedures for the storage of salt and salt/sand mix piles at RIDOT facilities. Per Patrick Hogan (RIDEM), RIDOT has met all requirements of WP07-106 as of 4/13/2023 **[ATTACHMENT 6E].** RIDEM has closed the enforcement case and no further action is required.

Of the 20 RIDOT Primary Salt Stockpiles throughout the state, all are now under permanent cover. There is 1 Strategic Salt Reserve that is under temporary cover. RIDOT added a 20,000-ton strategic salt reserve stockpile to its winter operations plan for the first time prior to the 2016 season. It's an additional covered stockpile that is saved for situations when the salt demands are high (severe winters) and deliveries get delayed. The strategic salt reserve is 8,500 tons for 2025. RIDOT ED reviewed plans on August 2024 for new salt barns at the Clayville and Johnston Facilities. These barns will replace old wood covered salt barns and are expected to start construction in 2025.

RESPONSIBLE PARTIES - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program.

EFFECTIVENESS - RIDOT considers this measure effective.

YEAR 22 (2025) EXPECTED ACTIONS - RIDOT Maintenance will continue to upgrade equipment & salt barns as funding allows. RIDOT re-examined the "Green Incentive" for vendors to make it more feasible for vendors to obtain closed-loop equipment incentives; currently, the incentive is not deemed effective.

IV.B.6.b.5	For all facilities with discharges of stormwater associated with industrial activity, use the space below to 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 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 Stormwater Management Plan (formerly known as a Stormwater Pollution Prevention Plan), and any actions taken to amend the Plan must be kept for record-keeping purposes.

BMP 6J 1. – MAINTENANCE SWPPPS & SPCCS

RIDOT Maintenance facilities have Stormwater Pollution Prevention Plans and/or Spill Prevention Plans (as appropriate). The Facility SWPPP requires actions (inspections, monitoring, reporting) fulfilling obligations under IV.B.6.b.4 and IV.B.6.b.5. The SWPPPs and SPCCs were updated in 2011. Beginning in 2025, RIDOT ED will implement electronic SWPPP and SPCC monthly and annual facility inspection reports using VUEWorks. VUEWorks will assign the inspection task to a proper facility contact and give a deadline to perform the inspections. ED will be visiting each facility to train employees and perform an inspection.

RESPONSIBLE PARTIES - RIDOT Maintenance is the primary RIDOT entity responsible for the implementation of this program.

EFFECTIVENESS - RIDOT considers this measure effective, however completion and documentation of the inspections needs to be improved.

YEAR 22 (2025) EXPECTED ACTIONS - RIDOT Maintenance will continue this program. ED anticipates training Maintenance staff on SWPPPs/SPCCs and integrating documentation into VUEWorks during 2025.

IV.B.6.b.6	Use the space below to describe all employee training programs used to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance for the past calendar year, including MS4 staff participation in trainings offered by other parties (e.g. SNEP, EPA) and all in-house training conducted by the municipality/MS4. Evaluate appropriateness and effectiveness of this requirement. How many stormwater management trainings have been provided to ~~*municipal/MS4*~~ *RIDOT employees* during this reporting period? 5+ What was the date of the training? The last training provided directly by RIDOT staff was fall 2024, the last training attended by staff was in December 2024. Training Topic(s): A User's Guide to MS4 Permitting, Common Stormwater Violations & Tips to Avoid Them, StormwaterOne: Awareness (Level 1), SWPPP Documentation Training, etc. How many ~~*municipal/MS4*~~ *RIDOT employees* attended this training? RIDOT increased its efforts this year, but it was difficult to track all since they were not all offered through our LMS, which can track attendance. Our Professional Development Office tracks all attendees of courses taken in the State LMS. What percent of ~~*municipal/MS4*~~ *RIDOT employees* in relevant positions and departments received stormwater management training? 100% are offered some portion of it, but not all take it. Have ~~*municipal/MS4*~~ *RIDOT employees* that are responsible for inspecting or cleaning catch basins also been trained to detect and report illicit connections or non-stormwater discharges? *RIDOT employees* who are responsible for inspecting or cleaning catch basins are trained on what to look for, and how to report illicit connections to RIDOT Office of Stormwater Management. OSM works directly with the RIDOT Maintenance and Drainage Crews. In 2024, OSM conducted in-person training at all seven of the maintenance facilities. OSM staff discussed what illicit discharges are, and provided contact information for IDDE staff. RIDOT Drainage and Maintenance Crews were also provided with IDDE fact sheets [**ATTACHMENT 6F**]. These fact sheets will be posted at the maintenance facility for future reference for field personnel. These fact sheets were also provided in the "*Stormwater Resources for RIDOT Construction Projects*" binders provided to Construction REs. ED field staff receive field training. The ED's camera truck (received in 2020) conducted many inspections had found connections to the RIDOT drainage system that are allowable, but do not have any permitting information on file. SCP consultants received IDDE training as they do every year.

	BMP ID 6C, 6D, 6E – EMPLOYEE TRAINING Please see Minimum Measure 1.
IV.B.6.b.7	Use the space below to 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.

N/A to RIDOT

Additional Measurable Goals and Activities

DRAINAGE OPERATIONS

The RIDOT Maintenance Division added an in-house statewide drainage crew in 2016. The in-house statewide drainage crew expands the Department's resources to clean and repair (better maintain) the State's drainage infrastructure (catch basins, manholes, drainpipe, BMPs, outfalls, etc.). Currently, the in-house statewide drainage crew consists of 19 personnel plus 2 vacant positions and they operate out of the RIDOT Scituate Facility. They have 6 Stetco trucks, 4 mason trucks, and 4 Vactor vacuum trucks in addition to their other standard equipment. Work performance is reported in the Consent Decree Annual Report. During FY2024 and so far in FY2025:

- RIDOT received 2 new Vactor vacuum tricks, 34 new plow trucks, and 8 new backhoes.
- RIDOT will receive 4 new Statco trucks and 8 new road sweepers.
- RIDOT bid out for 15 new plow trucks and is preparing to bid for 31 additional new plow trucks.

WINTER OPERATIONS

Starting in 2012, RIDOT began outfitting its winter fleet with new "closed loop" spreader controls that incorporated GPS and wireless technologies. This program required a significant investment by the Department but has resulted in financial savings and reduced our overall impact on the environment. With salt (sodium chloride) representing the most expensive part of snow and ice operations, we have been able to reduce our potential expenses. These closed-loop operation trucks significantly decrease the amount of roadway sand (and salt) applied to RIDOT roadways, thereby decreasing the amount of sediment needed to be swept and cleaned out of catch basins in the Spring, and ultimately decreasing the amount entering the environment.

Starting in 2013, RIDOT began using salt brine for anti-icing and pre-wetting applications. We currently have one brine production unit at our Midstate Facility in East Greenwich which can produce close to 5,000 gallons per hour with salt brine storage available at most of our storage facilities. In order to expand this initiative, which is a much-improved method of anti-icing versus using solid materials, we will be working to expand our production abilities in the coming years and will continue to have a need for assistance with application and perhaps hauling between storage sites. In 2024, RIDOT bid out for two (2) self-contained mobile automatic salt brine production systems and six (6) new liquid storage tanks, which will be delivered in 2025.

RIDOT currently has 164 winter operation trucks (compared to 148 in 2023), all with closed-loop systems and is continuously replacing older, less efficient trucks (those 10 years old or older). RIDOT bid out for 15 additional new plow trucks with closed-loop systems that will be received in 2025/2026 which will replace older trucks. The RIDOT fleet budget is currently $14 Million per State Fiscal Year.

SECTION II.A - Structural BMPs (Part IV.B.6.b.1.i) These include but are not limited to: retention/detention basins, vegetated treatment, infiltration, and pre-treatment controls, etc.

Reporting of this effort is part of the Consent Decree Compliance report.

SECTION II.B - Discharges Causing Scouring or Excessive Sedimentation (Part IV.B.6.b.1.v)

Reporting of this effort is part of the Consent Decree Compliance report.

SECTION II.C - Note any planned municipal/MS4-owned construction projects/opportunities to incorporate water quality BMPs, low impact development, or activities to promote infiltration and recharge (Part IV.G.2.j).

Reporting of this effort is part of the Consent Decree Compliance report.

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).

Reporting of this effort is part of the Consent Decree Compliance report.

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 stormwater 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 stormwater identified in the approved TMDL (Part IV.G.2.d). Please indicate rationale for the activities chosen to address the pollutant of concern.

Reporting of this effort is part of the Consent Decree Compliance report.

SPECIAL RESOURCE PROTECTION WATERS (SRPWs)

SECTION I. In accordance with Title 250 RICR-150-10-1 ("RIPDES Regulations") §1.32(A)(5)(a)(7), 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 with RIPDES Regulations §1.32(G)(5)(c). A list of SRPWs can be found in Title 250-RICR-150-05-1 ("Water Quality Regulations") §1.28 at this link:
https://rules.sos.ri.gov/regulations/part/250-150-05-1
The State of Rhode Island 2024 Impaired Waters Report (April 2024) can be found here:
https://dem.ri.gov/sites/g/files/xkgbur861/files/2024-10/ridem-impaired-waters-report-24.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 Stormwater Program to include the discharges to the aforementioned waters and adapting the Six Minimum Control Measures to include the control of stormwater 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.

Reporting of this effort is part of the Consent Decree Compliance report.

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 stormwater under the Rhode Island Pollutant Discharge Elimination System (RIPDES) Stormwater General Permit for Small Municipal Separate Storm Sewer Systems and Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s (hereafter referred to as "the General Permit"), 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 Jennifer Stout of the Rhode Island Department of Environmental Management (RIDEM), Office of Water Resources, Permitting Section at (401) 537-4170.

The Annual Report must be submitted to:

RIDEM, Office of Water Resources
RIPDES Municipal and Industrial Stormwater Program
235 Promenade Street
Providence, RI 02908
ATTN: Jennifer Stout

An electronic copy of the Annual Report may be emailed to jennifer.stout@dem.ri.gov.

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 (as defined in Title 250 RICR-150-10-1 ("RIPDES Regulations") §§1.3 and 1.12). 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 Regulations §§1.3 and 1.12). 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 Regulations §1.12);

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 2024 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. Mark with an asterisk (*) if this person/entity is different from last year.

Describe whether each measurable goal was completed within the time proposed in the General Permit or your Stormwater Management Program Plan (SWMPP). 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 II refers to additional reporting requirements that the General Permit requires to be submitted 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) to the Annual Report.

Minimum Control Measure #3: Section II.A:
Provide the number of illicit discharges identified in 2024, number of illicit discharges tracked in 2024, number of illicit discharges eliminated in 2024, complaints received, complaints investigated, violations issued and resolved with a summary of enforcement actions, number of unresolved violations that have been referred to RIDEM, the total number of illicit discharges identified to date, and the total number of illicit discharges remaining unresolved at the end of 2024. Include a short narrative describing the extent to which your system has been mapped (Part IV.G.2.m), and the total number of outfalls identified to date.

Minimum Control Measure #3: Section II.B:
List identified MS4 interconnections, including 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/SESC Plan reviews completed during Year 21 (2024) and any additional 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 General 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/MS4-owned 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 stormwater 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 stormwater (Part IV.G.2.d).

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 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 §1.28 of Title 250-RICR-150-05-1 (“Water Quality Regulations”) at this link:
https://rules.sos.ri.gov/regulations/part/250-150-05-1
or
an impaired water body including water bodies with no approved TMDL as listed in the *State of Rhode Island 2024 Impaired Waters Report, April 2024* at this link:
https://dem.ri.gov/sites/g/files/xkgbur861/files/2024-10/ridem-impaired-waters-report-24.pdf

In accordance with the RIPDES Regulations §1.32(A)(5)(a)(7), MS4s were required to incorporate any discharges to these waterbodies into their MS4 Program on or after March 10, 2008 unless a waiver has been granted in accordance with RIPDES Regulations §1.32(G)(5)(c).

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 Stormwater Program.

RIDOT Updated Stormwater Management Program Plan
December 2020

MM1 Public Education and Outreach	
IV.B.1.b.2	Inform the community on how to become involved in the storm water program and utilize partnerships with governmental and non-governmental entities
1A	1. Woonasquatucket River Watershed Council (WRWC)- fund public stormwater education as part of projects funded by RIDOT/WRWC Agreement (5 yr agreement) 2. Rhode Island State Conservation Committee (RISCC)- fund public stormwater education as part of projects funded by RIDOT/RISCC Agreement (5 yr agreement) 3. Providence Stormwater Innovation Center (PSIC)- fund public stormwater education as part of projects funded by RIDOT/PSIC Agreement (5 yr agreement) 4. Green Infrastructure Coalition (GIC) collaboration- fabricate interpretive stormwater signs for public education 5. Save the Bay (STB)- fund existing storm drain marking program (5 yrs funding) and public education 6. Engage with Municipal governments during the development of Stormwater Control Plans (SCPs) to actively pursue partnerships between RIDOT and MS4 for water quality treatment, flood mitigation, and environmental benefits
IV.B.1.b.4	List target pollutant sources the public education program is designed to address
1B	1. Per Consent Decree: All roadway stormwater-related impairments {impairments for metals (e.g., zinc, lead, copper) other than mercury, nutrients (e.g., phosphorus, nitrogen), organic enrichment, bacteria (e.g., fecal coliform, enterococcus), salinity/chloride, impaired biota, turbidity, hydrocarbons, and total suspended solids (TSS). If a waterbody segment is listed as impaired for temperature or flow alteration or another impairment not listed in the first sentence above and roadways are attributed as a contributing source of the impairment, the temperature or flow alteration or other impairment shall also be considered a Roadway Stormwater-Related Impairment for that waterbody segment. For impairments that are described as "observed effects," e.g., algal growth or taste/color/odor, the impairment will be treated as a Roadway Stormwater-Related Impairment for nutrients (e.g., phosphorus, nitrogen) or, if applicable, another Roadway Stormwater-Related Impairment pollutant listed in the first sentence above.} 2. Any pollutants specifically called out in RIDEM TMDL reports where RIDOT is a named MS4.
MM2 Public Involvement/Participation	
IV.B.2.b.2.i	Identify the target audiences of the public involvement program and describe the groups engaged
2A	1. General public, community groups, businesses, non-profits 2. Municipal officials will be actively engaged in the development of RIDOT SCPs.
IV.B.2.b.2.ii	Describe types of public involvement activities in the program
2B	1. RIDOT Environmental Division will routinely engage in environmental public speaking events 2. Adopt-a-Highway, Adopt-a-Roadway, Adopt-a-Spot 3. RI Prison Crew Cleanups 4. PSIC- citizen science, stormwater art fair, stormwater information/education center 5. STB- community groups participate in volunteer storm drain marking program
IV.B.2.b.2. iii	Provide adequate public notice of the draft Annual Report and provide the opportunity for public comment
2C	1. Draft document posted on the RIDOT Stormwater Website for 30-day public notice 2. Submitted SCPs posted on the RIDOT Stormwater Website 3. 30-day Public Notice legal ad posted in Providence Journal, prior to submitting to RIDEM, allows for public comment
MM3 Illicit Discharge Detection and Elimination	
IV.B.3.b.1	Outfall map showing the location of all outfalls and names of receiving waters. Continue to update, record-keeping, and tracking to submit information in the annual report.

3A	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf 2. Continue to improve RIDOT Stormwater Spatial Database https://ridot.maps.arcgis.com/apps/webappviewer/index.html?id=aad71f34e380432c9fa1de3d8b0f921d
IV.B.3.b.2	Tag outfall pipes if GIS maps are not developed. Not required to be done if outfalls lat-long were submitted to the Department.
	1. n/a
IV.B.3.b.4	Regulatory mechanism (ordinance) to prohibit and enforce illicit discharges to the MS4. Ordinance changes or amendments if necessary, submit information in the annual report.
	1. n/a
IV.B.3.b.5.i	Identification of priority areas which include areas with higher likelihood of illicit connections
3B	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.5.ii	Receive and consider complaints. Record-keeping and tracking of complaints of illicit discharges to submit information in the annual report.
3C	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.5.iii	Trace the source of illicit discharges
3D	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.5.iv	Remove the source of illicit discharges
3E	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.5.v	Evaluate and assess the program
3F	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.5.vi	Inspect catch basins and manholes at least once for illicit connections and non-storm water discharges. **Possibly coordinated with the annual inspection and cleaning prescribed in IV.B.6.b.1.iii**
3G	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.5.vii	Conduct a minimum of two dry weather surveys, one between Jan 1 and April 30 and one between July 1 and Oct 31. (Sanitary sewers-bacteria sampling is only required once between July 1 and Oct 31)
3H	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.6	Coordinate other physically interconnected MS4s including State and federal owned or operated MS4s, when illicit discharges are detected
3I	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.7	Refer non-storm water discharges not authorized by this permit or a pre-existing permit to RIDEM
3J	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
IV.B.3.b.9	Record and track all actions taken to detect and address illicit discharges
3K	1. Follow EPA-Approved RIDOT IDDE Plan http://www.dot.ri.gov/documents/about/protecting/stormwater/RIDOT_IDDE_Plan_Final_2016.pdf
MM4 Construction Site Stormwater Runoff Control	
IV.B.4.b.1	Regulatory mechanism (ordinance) to require erosion and sediment controls, control of other wastes, as well as sanctions to ensure compliance at construction sites
4A	1. RIPDES CGP requires SESC Plans, including inspections for permitted projects at least 1 acre 2. RIDOT policies require small-site SWPP Plans, including inspections, on all other projects

	3. RIDOT revised Specification Sections 206-212 (in 2020) to update controls, require contractors to conduct inspections on all projects, includes charges to contractor for failure to comply 4. RIDOT PAPA requirements for private construction on/near/impacting RIDOT roadways
IV.B.4.b.2	Issue and track permits to ensure compliance with the erosion and sediment control regulatory mechanism including sanctions and enforcement mechanisms for all construction sites ≥ 1 acre
4B	1. RIDOT PAPA permit requirements for private construction on/near/impacting RIDOT roadways 2. Environmental Division tracks RIDOT environmental permits, requirements, & commitments in new database
IV.B.4.b.4	Review 100% of plans and SWPPPs for construction projects 1-5 acres
4C	1. RIDOT reviews all plans, ED reviews plans and attends scoping meetings 2. RIDOT has policies/procedures to ensure SWPPPs/SESC Plans are developed and implemented for all projects
IV.B.4.b.5	Coordinate site plan and SWPPP review when relying on State program reviews of construction activity
4D	1. RIDOT accepts reviews by CRMC, RIDEM Wetlands, RIDEM WQC Program, and approvals by RIDEM RIPDES Program for stormwater discharges from construction activities with disturbance >/= 1 acre.
IV.B.4.b.7	Inspect 100% of all construction projects that discharge or have the potential to discharge to the MS4
4E	1. RIDOT REs or Inspectors or 3rd party consultants perform weekly/post storm SWPPP inspections on all projects. 2. Environmental Division inspector to conduct construction stormwater audits as time/staff allows to assist with site compliance on projects with high probability of impacts to MS4.
IV.B.4.b.8	Refer non-compliant construction site operators to the State
	1. n/a
MM5 Post Construction BMP	
IV.B.5.b.2	Describe how the program is consistent with the State of Rhode Island Stormwater Design and Installation Manual and how the program will be tailored for the local community/facility, minimize water quality impacts and work to maintain pre-development runoff conditions
5A	1. Designers follow the RISDISM and the RIDOT Linear Stormwater Manual (LSM) for a consistent, streamlined design process for stormwater treatment for RIDOT projects. The LSM aligns RIDEM/CRMC permitting requirements and provides guidance for complying with the RIDOT/EPA/DOJ Consent Decree. 2. Follow RIDOT / RIDEM 2017 Agreement to treat 50% MEP of all Capital Projects
IV.B.5.b.3	Pre-application meetings with representatives of construction projects
5B	1. ED coordination with RIDOT PMs, consultants during scoping stage of project development. 2. ED attends all relevant pre-construction conferences, RIDOT representative attends all
IV.B.5.b.4	Review 100% of plans for post-construction BMPs for construction projects ≥ 1acre
5C	1. ED reviews all projects to make sure stormwater treatment designs meet State permitting and Consent Decree requirements.
IV.B.5.b.5	Coordinate with existing State programs requiring post-construction storm water management
5D	1. ED regularly coordinates with RIDEM 2. RIPDES program reviews all projects subject to stormwater permitting 3. RIDOT accepts RIDEM RIPDES Program review
IV.B.5.b.6	Refer new discharges of storm water associated with industrial activity to the State
	1. n/a
IV.B.5.b.9	Regulatory mechanism (ordinance) to address post-construction runoff from new development and redevelopment including requirements for proper installation and operation and maintenance of structural BMP's, requirements and standards for non-structural BMP's, as well as sanctions to ensure compliance at construction sites
5E	1. RIDOT does not have legal authority to adopt an ordinance.

	2. RIDOT uses its Linear Manual to address post-construction runoff from new development and redevelopment including requirements for proper installation and operation and maintenance of structural BMP's 3. Updated PAPA requirements for connections into the RIDOT drainage system
IV.B.5.b.10	Inspect 100% of all development ≥1 acre that discharge or have the potential to discharges to the MS4
5F	1. Prior to June 2020, RIDOT REs and/or Inspectors from CM responsible for SWPPP inspections 2. RIDOT conducts Final Inspections at project end 3. Updated RIDOT Specification Section 212 to require contractors to conduct SWPPP inspections on all projects
IV.B.5.b.12	Identify existing storm water structural BMP's discharging to the MS4 with a goal of ensuring long-term O&M of the structural BMP's
5G	1. Updated PAPA requirements for connections into the RIDOT drainage system
MM6 Pollution Prevention and Good Housekeeping	
IV.B.6.b.1.i	Identify, locate and describe all structural BMP's owned/operated by the small MS4 operator
6A	1. Follow RIDOT Consent Decree Requirements § VI. D. Housekeeping/Operation and Maintenance
IV.B.6.b.1.ii	Inspecting and clean BMPs
6B	1. Follow RIDOT Consent Decree Requirements § VI. D. Housekeeping/Operation and Maintenance
IV.B.6.b.1.iii	Annual catch basin inspection and cleaning program. **Possibly coordinated catch basin and manholes inspections for illicit connections prescribed in IV.B.3.b.5.vi**
6C	1. Follow RIDOT Consent Decree Requirements § VI. D. Housekeeping/Operation and Maintenance
IV.B.6.b.1.iv	Minimize erosion of roadside shoulders and ditches
6D	1. RIDOT staff attend all Final Inspections, direct contractors to complete stabilization if not done 2. Once contractors complete final stabilization, RIDOT submits NOTs for projects covered under RIPDES CGP 3. Environmental Division communicates with Construction Management Division about winter stabilization each fall (fact sheets, reminders) 4. Regular RIDOT Maintenance protocols
IV.B.6.b.1.v	Identify and report annually the known discharges causing scouring at outfall pipes or outfalls with excessive sedimentation
6E	1. Follow RIDOT Consent Decree Requirements § VI. D. Housekeeping/Operation and Maintenance
IV.B.6.b.1.vi	Road sweeping program that includes sweeping all streets and roads within the regulated area annually
6F	1. Follow RIDOT Consent Decree Requirements § VI. D. Housekeeping/Operation and Maintenance
IV.B.6.b.1.vii	Maintenance activities, schedules and long-term inspections for controls to reduce floatables
6G	1. Follow RIDOT Consent Decree Requirements § VI. D. Housekeeping/Operation and Maintenance
IV.B.6.b.1.viii	Properly dispose removed wastes from the MS4
6H	1. Implement RIDOT Catch Basin Sediment & Street Sweeping Material Management Plan 2. Maintenance Facility SWPPPs and/or SPCCs 3. Construction Specs for proper removal of waste from construction sites
IV.B.6.b.2	Report and describe all operations under legal control that may have the potential to introduce pollutants into storm water
6I	1. Continue RIDOT Maintenance SWPPPs & SPCCs
IV.B.6.b.4/5	BMP O&M and good housekeeping program for non-industrial facilities with the potential to introduce pollutants to their storm water discharges with the goal of minimizing/eliminating pollutant runoff
6J	1. Continue RIDOT Maintenance SWPPPs & SPCCs
IV.B.6.b.7	Assess flow management projects
	1. n/a
IV.B.6.b.8	Proper erosion and sediment and water quality control for construction projects
6K	1. Project SWPPPs/SESCPs 2. RIDOT Specifications for Construction

STORMWATER IMPROVEMENT & EDUCATION
PARTNERSHIP AGREEMENT
CITY OR PRIVATE PROPERTY AND STATE FUNDS

by and between the

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

and the

PROVIDENCE STORMWATER INNOVATION CENTER

This AGREEMENT is entered into by and between the STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, through its Department of Transportation (hereinafter called the STATE), and the Providence Stormwater Innovation Center (hereinafter called the PSIC) to provide stormwater public outreach and education, and scope, design, construct, operate and maintain green infrastructure stormwater treatment.

WHEREAS the STATE is mandated by Consent Decree to treat stormwater to improve certain impairments that negatively impact the water quality of the State of Rhode Island,

WHEREAS the STATE is mandated by its RIPDES Small Storm Sewer System Permit (MS4) to educate the public about proper stormwater management and how it impacts the water quality of the State of Rhode Island,

WHEREAS the STATE and PSIC, have agreed that the proper installation of green infrastructure will benefit the water quality of the State of Rhode Island,

WHEREAS the STATE is committed to sustainability, reducing temperature impacts, and improving water quality,

WHEREAS the STATE, in cooperation with the PSIC, agree that a partnership approach to meet water quality, Consent Decree, and MS4 goals are mutually beneficial to both the STATE and the PSIC,

WHEREAS the PSIC have demonstrated experience and cost efficiency in the area of green infrastructure construction, education, innovation, and maintenance,

WHEREAS the PSIC will investigate opportunities for innovative designs for green infrastructure on both public and private property,

NOW THEREFORE, in consideration of the foregoing premises and the mutual obligations contained herein, the STATE and the PSIC hereby agree as follows:

SECTION I - GENERAL PROVISIONS

1. The "Stormwater Improvement & Education Partnership" (PROGRAM) will consist of multiple individual PROJECTS that are consistent with the goals of the STATE Office of Stormwater Management.

2. If the PSIC and the STATE agree that a site of interest has MERIT, the site of interest will be defined as a PROJECT (hereinafter called a "PROJECT"). A PROJECT that achieves MERIT under this PROGRAM may include some or all of the following activities; researching green infrastructure opportunities, obtaining or brokering easements, educating the public about green infrastructure, requesting and awarding bids for green infrastructure construction, constructing green infrastructure projects, grant management, managing payments, managing construction contracts, and stormwater maintenance.

3. The authorized start date of the PROGRAM under this agreement for PSIC to be eligible for reimbursement from the STATE, shall be the execution of this agreement. For this agreement:
    a. The total reimbursements are not to exceed $250,000.
    b. No PROJECT, under this agreement, shall be initiated after 5 years from the authorized start date of this AGREEMENT.
    c. The term of continuing reimbursements for any PROJECT shall not exceed 8 years from the authorized start date of this AGREEMENT.

4. A PROJECT is initiated when a site of interest, for the establishment of green infrastructure, or an educational program, for the benefit of the State of Rhode Island and has obtained MERIT (as determined by the STATE and defined in #5 below). The PSIC or the STATE may propose a site of interest to either party under this PROGRAM.

5. MERIT is achieved for each PROJECT upon the completion of a project Charter. The Project Charter, at a minimum, must include the following (see also Exhibit A):
    a. If the PROJECT involves the establishment of green infrastructure, the Project Charter must have a cost benefit analysis, by the STATE that documents the benefits toward the Consent Decree against projected costs
    b. If the PROJECT involves public education and outreach, the Project Charter must describe how the PROJECT aligns with RIPDES MS4 permitting requirements.
    c. A list of stakeholders
    d. A PROJECT scope
    e. An estimated budget
    f. Proof of a "good faith effort" by the PSIC to find matching grant funds for each project
    g. A letter of cooperation from the owner of the site, if required
    h. A signature from the assigned financial administrator at the PSIC. Such administration shall include but not be limited to the maintenance of a PROJECT account, as well as processing invoices, change orders, and contract addenda. The PSIC contact person shall maintain all financial records for the project.
    i. A Funding Authorization Letter from the STATE to authorize a reimbursement budget for the PSIC.

SECTION II – PROJECT DESIGN PHASE FOR PROJECTS WITH MERIT

6. The STATE will be responsible for the design of the PROJECT and the development of a project plan for all PROJECTS initiated under this PROGRAM.

7. The STATE's Office of Stormwater Management will review all reimbursement requests for time and materials when submitted by the PSIC. The STATE's Office of Stormwater Management will review these requests for consistency with the approved Project Charter. An example of the reimbursement requests can be found in Exhibit B of this Agreement.

8. If private property is utilized, the PSIC be responsible for obtaining an appraisal of the PROJECT property by a qualified appraiser certified and licensed in the State of Rhode Island. The PSIC shall record and document all meetings with the property owner(s) to obtain easements or rights-of-way as may be necessary. Said documentation may be submitted to the STATE for review and approval.

9. During the design phase of the PROJECT, the STATE may terminate the PROJECT at any time, for any reason. If the STATE notifies the PSIC, in writing, that the PROJECT is terminated, no further reimbursements will be authorized other than those already incurred. (All costs incurred by the PSIC and any vendor engaged to perform services through the date of notification shall be paid). The PSIC must submit all invoices to RIDOT within 90 days of receipt of written notice from the STATE of a terminated project, in order to be eligible for reimbursement.

10. A written decision by the STATE to continue or terminate the project will be required at the 30% design stage. If PSIC and/or the Property Owner do not approve of the PROJECT, and negotiations become infeasible, the PROJECT may be terminated. The continuation to full design shall be formalized by:
    a. A memo from the PSIC stating the agreement with the 30% design plans of the PROJECT,
    b. A copy of a temporary easement from the Property Owner, private property easements or other right-of-way permissions, if an easement or ROW is necessary to both build and maintain the PROJECT,
    c. A revision of the budget and cost benefit analysis by the STATE,
    d. A memo signed by the STATE's Stormwater Administrator authorizing the continuation of the project, and
    e. A revised Funding Authorization Letter, if required.

11. The PSIC will respond with any review comments all documents generated by the STATE or the STATE's design engineer within twenty (20) calendar days of their receipt.

12. A completed design package shall include, at a minimum: site plans, advertising and bid documents, all required permits and any necessary easements.

SECTION III – ADVERTISE, AWARD, AND CONSTRUCTION PROVISIONS

13. The STATE will provide the PSIC with the design package for advertisement along with a revised, if necessary, copy of the STATE's Funding Authorization Letter. The PSIC agrees to advertise and award PROJECT for elements of the PROJECT that the PSIC does not want to complete with their existing resources. All advertising and awards shall be conducted in accordance with State Regulations and Rhode Island General Laws.

14. The PSIC may select a Contractor to construct a project as designed and in accordance with the bid specifications. The STATE must approve the PSIC selection prior to the PSIC entering into a contract with a selected contractor. The PSIC, through its Contractor, will construct the improvements in accordance with the Plans and Specifications for the PROJECT.

15. The PSIC shall initially be responsible for payment of all costs associated with construction or completion of a PROJECT, and the State will reimburse the PSIC for the costs of a PROJECT including, but not limited to acquisitions, construction, and maintenance, up to and not exceeding Two Hundred Fifty Thousand Dollars ($250,000) for all PROJECTS approved under this Agreement.

16. The STATE acknowledges that the PSIC may seek third-party financing with the STATE's Funding Authorization Letter for construction of the approved PROJECT(S), and such third parties will rely on the obligation of the STATE to make reimbursements to the PSIC as set forth in this AGREEMENT for the repayment obligation of the PSIC to the third party financing entity. The STATE further acknowledges that the PSIC may assign and pledge (i) its rights to reimbursements from the STATE under this AGREEMENT, and (ii) its other rights and remedies under this AGREEMENT, to a third-party financing entity. The STATE agrees to indemnify and hold harmless the PSIC for actions or claims brought against the PSIC as a result of the STATE's failure to provide reimbursements or otherwise fail to meet its obligations in accordance with the terms of this AGREEMENT. The STATE will reimburse the PSIC for banking fees (subject to prior approval), as incurred from third party financing.

17. The STATE will conduct routine and final inspections of the PROJECT with the Contractor, the PSIC and the Property Owner to ensure the PROJECT was completed in conformance to the plans and specifications for the PROJECT.

18. The following are the General Program Requirements for the finalization, acceptance and closeout of each PROJECT. The STATE shall perform finalization and acceptance of the PROJECT. The following items are required to finalize and close the PROJECT.
    a. Final inspection report
    b. Corrective action plan(s) and punch list resolutions
    c. Letter of Project acceptance, as specified by standard STATE procedure, certifying that the PROJECT has been completed in accordance with the contract documents.

SECTION IV – OPERATIONS, MAINTENANCE, PUBLIC EDUCATION AND OUTREACH

19. After finalization, acceptance and closeout of the PROJECT is completed, the PSIC will maintain, and if deemed necessary by the STATE, reconstruct portions of the PROJECT, in accordance with the long-term RIDOT Operation and Maintenance Plan developed by the STATE. Amendments to the Operations and Maintenance Plan must be approved by the STATE.

20. The STATE may choose to maintain some of the green infrastructure as part of the PROJECT and as specified in the Operations and Maintenance Plan.

21. The PSIC shall record and document all maintenance and minor reconstruction of any PROJECT and submit the appropriate paperwork for reimbursement. The STATE will reimburse the PSIC for time and materials required to conduct operations and maintenance of any PROJECT constructed through this PROGRAM.

22. The PSIC may use this agreement to supplement costs for public education and outreach projects, such as educational tours of the stormwater treatment units. PSIC must obtain a funding authorization letter (Approval) from RIDOT prior to the initiation of an education or outreach PROJECT.

SECTION V – GENERAL PROGRAM REQUIREMENTS AND CONDITIONS

23. The following are the General Program Requirements for the submission of reimbursement requests by the PSIC:

    a. The PSIC shall invoice the State for work completed by its contractor (including PSIC construction staff) for the project. This includes, but is not limited to, labor and materials, canceled checks or other proof of payment.

    b. The PSIC shall submit reimbursement requests (in the form attached as Exhibit B) with a cover letter signed by the PSIC Director containing the following language and provisions:

    "I hereby certify that the materials and work for which payment is being requested meets the requirements of the contract documents and approved change orders in all respects, except as noted below. This certification is made in full cognizance of the Federal False Statements provision under United States Code, title 18, section 1020, and I am duly authorized to certify on behalf of the PSIC."

    c. The STATE agrees to review each reimbursement request within a reasonable time period, and if such request is in proper form, provide payment to the PSIC within 30 business days of approval of each reimbursement request. If further information is required by the STATE in connection with a reimbursement request, it shall provide to the PSIC within 10 business days a description of the information required to process the reimbursement request.

d. The PSIC shall indicate on each reimbursement request to the STATE, the third-party financing agent, if one exists. If a third-party finance agent exists, the STATE will send a copy of the reimbursement approval to the third party for payment by the third party. The STATE financial office will reimburse funds directly to the PSIC.

24. The PSIC shall also provide to the STATE and any other entity providing financing for PROJECTS constructed under this agreement, its annual audited financial statements within 3 months of the end of the PSIC fiscal year.

25. All costs billed under this Agreement are subject to audit. The PSIC agrees to retain and maintain all records of costs incurred for a period of five (5) years from the date of final payment and all other pending matters are closed.

26. To the extent applicable, in accordance with 2 CFR 200.501(a), the PSIC may be required to obtain a single audit from an independent auditor, if the PSIC expends $750,000 or more in total Federal funds in their fiscal year. If required, the PSIC must submit the federal form SF-SAC and a Single Audit Report Package within 9 months of the end of the PSIC fiscal year or 30 days after receiving the report from an independent auditor.

27. The STATE reserves the right to terminate this Agreement if the STATE funds are rescinded. The STATE will provide the PSIC with written notice of such termination, with as much advance notice as possible of any STATE or Federal action to rescind funs so that the PSIC can notify consultants and/or contractors to stop work in a timely manner. The PSIC shall be reimbursed by the STATE for all expenses incurred pursuant to the terms of this Agreement through the date of receipt of written notice by the STATE of termination of this Agreement or rescission of funds for a PROJECT(S), including any costs reasonably incurred by PSIC after the date of receipt of written notice by the STATE to cease work on the project in a commercially reasonable manner.

28. This Agreement may not be altered or amended except by written agreement signed by all the parties.

IN WITNESS WHEREOF, the STATE and the PSIC have caused this AGREEMENT to be executed by their duly authorized officials as of the _____ day of _____, 2020.

Recommended for Approval:

_____ _____
Brian M. Moore, Stormwater Administrator, RIDOT Date:

_____ _____
Robert Rocchio, Chief Engineer for Infrastructure, RIDOT Date:

_____ _____
Dawn Cruz, Acting Chief Financial Officer, RIDOT Date:

_____ _____
John Igliozzi, Assistant Director for Legal Services, RIDOT Date:

_____ _____
Peter Alviti, Director, RIDOT Date:

_____ _____
Meg Kerr, Senior Director, Policy Date:
Audubon Society of Rhode Island, on behalf of
Providence Stormwater Innovation Center

_____ _____
Kolby Purcell, Chief Financial Officer Date:
Audubon Society of Rhode Island, on behalf of
Providence Stormwater Innovation Center

Exhibits:
A - Sample Project Charter
B - Form of request for reimbursement documentation

STORMWATER INNOVATION CENTER



2024 ANNUAL REPORT

Stormwater Innovation Center

www.stormwaterinnovationcenter.org

www.facebook.com/stormwaterinnovation

The Stormwater Innovation Center (SIC),is a collaborative initiative dedicated to improving water quality and stormwater management statewide. By partnering with government, non-profits, and industry, SIC integrates research, education, outreach, and practical solutions to tackle stormwater challenges to work together to create cleaner, more resilient waterways for Rhode Island. These programs are made possible thanks to funding by the Rhode Island Department of Transportation.

WHO WE ARE

Green infrastructure research, training, outreach and implementation

The Stormwater Innovation Center (SIC) is committed to improving stormwater management, promoting education, and fostering partnerships to enhance water quality throughout Rhode Island.

- **Innovative Stormwater Solutions:** By conducting research and monitoring green infrastructure projects, SIC develops and shares best practices in the design, construction, and maintenance of effective stormwater systems.

- **Education and Community Engagement:** SIC empowers individuals and professionals through programs such as public events, school outreach, guided tours, and hands-on training. Signature events like the Rain Harvest Festival encourage action and raise awareness.

- **Collaborative Partnerships**: Working with government agencies, non-profits, academic institutions, and the private sector, SIC builds networks to address complex stormwater challenges through shared knowledge and resources.

- **Impact Through Restoration:** SIC leads water quality improvement projects across Rhode Island, finding solutions that restore and protect local waters.

LEADERSHIP TEAM

ADVISORY COMMITTEE

The Stormwater Innovation Center **Leadership Team** meets weekly to provide input and ideas that advance our mission. They contribute to projects in research, training, outreach, and stormwater management while collaborating on grants and funding opportunities. This teamwork drives the Center's success and strategic direction.

Leadership Team Members

Brian Byrnes, Providence Parks Department
Wenley Ferguson, Save The Bay
Lee Ann Freitas, Providence Parks Department
Q Kellogg, University of Rhode Island
Heather Kinney, The Nature Conservancy of Rhode Island
Ryan Kopp, Stormwater Innovation Center, Audubon Society of Rhode Island
Meg Kerr, Retired Advisor and Consultant
Jose Ramirez, Roger Williams Park Conservancy
Rebecca Reeves, Stormwater Innovation Center, Audubon Society of Rhode Island

The Advisory Committee at the Stormwater Innovation Center is important in fostering collaboration and knowledge exchange within the stormwater management and water quality restoration community. Through our bi-annual meetings, we keep partners informed about ongoing projects and programs. These sessions provide a platform for presenters to share their expertise, insights, and experiences on various projects. The Advisory Committee actively encourages networking among stormwater professionals. Our goal is to cultivate an inclusive environment that promotes meaningful discussions, shared learning, and the advancement of stormwater solutions and practices.

Advisory Committee Members

Greg Avenia - Kleinfelder
Joe Baker - Rhode Island Department of Transportation
Johanna Barthmaier-Payne - Rhode Island School of Design
Brian Byrnes - City of Providence Parks Department
Jillian Chopy - Rhode Island Department of Health
Sara Churgin - Eastern Rhode Island Conservation District
Andrew Cortes - Building Futures
Priscilla De La Cruz - City of Providence Sustainability Department
Chris Dill - Rhode Island Department of Environmental Management
Sheila Dormody - City of Providence Policy and Resiliency
Holly Ewald - Artist and Educator
Wenley Ferguson - Save the Bay
Thaïs Fournier - Rhode Island Department of Environmental Management
Lee Ann Freitas - City of Providence Botanical Center
Art Gold - Stormwater Innovation Center
Joe Haberek - Rhode Island Department of Environmental Management
Heather Hamilton - Rhode Island Department of Transportation
Robert Hanley - Middletown Department of Public Works
Lance Hill - Pare Corporation
Craig Hochman - City of Providence Department of Public Works
Jamie Houle - University of New Hampshire
Q Kellogg - University of Rhode Island Coastal Institute
Meg Kerr - Stormwater Innovation Center
Heather Kinney - The Nature Conservancy
Kim Korioth - Rhode Island Department of Environmental Management
Brian Kuchar - Horsley Witten
Brian Lafaille - Rhode Island Department of Environmental Management
Todd Le - Northern Rhode Island Conservation District
Alicia Lehrer - Woonasquatucket River Watershed Council
Scott McLeish - Middletown Department of Public Works
Bonnie Nickerson - Roger Williams Park Conservancy
Jill Parrett - Providence College Facilities/Sustainability
Kevin Proft - City of Providence Sustainability Department
Jose Ramirez - Roger Williams Park Conservancy
Alisa Richardson - Rhode Island Department of Transportation
Elizabeth Scott - SNEP Network
Chris Shea - DiPrete Engineering
Jeanine Silversmith - Rhode Island Environmental Education Association
Renee Stoops - Plant Allies
Edward Tally - City of Cranston
Jed Thorp - Save the Bay
Angela Tuoni - The Nature Conservancy
Kate Venturini - University of Rhode Island Cooperative Extension
Nick Wentzell - Rhode Island Department of Transportation
Michael Wilkinson - USDA Natural Resources Conservation Service

OUR TEAM

Working together to achieve our shared goals



In 2024, the Stormwater Innovation Center (SIC) continued to expand its talented team strengthening our capacity to fulfill our mission. While **Ryan Kopp**, SIC Director, and **Rebecca Reeves**, Education and Outreach Manager, remain integral to our success, we are thrilled to highlight several new additions who have significantly contributed to our projects and initiatives.

Fiona Harrington, this year's IBES intern, made significant strides in cyanobacteria monitoring and coordination of Watershed Watch volunteers. She also assessed infiltration rates at green infrastructure sites within Roger Williams Park and developed GIS maps to guide future work at Mashapaug Pond.

Emily Alberigo joined as our Outreach and Social Media Associate, elevating our communications efforts. She launched the SIC newsletter, redesigned and upgraded our website, created engaging social media content and educational videos, and initiated development on a new website dedicated to Mashapaug Pond projects.





Madison Regan and **Sophia Motta** joined the team to support monitoring and research for the Treatment Train system. They installed advanced water quality sampling equipment, flow sensors, water level sensors, and a data collection platform, enabling real-time insights into the Treatment Train's performance.



Dr. Art Gold, a visiting professor and retired URI faculty member, brought invaluable expertise to our research on carp management and water quality. Dr. Gold has also provided technical guidance on the Roger Williams Zoo project and the Treatment Train system.







Q Kellogg contributed to the Treatment Train monitoring and conducted a reassessment of infiltration rates through continuous monitoring at green infrastructure sites within Roger Williams Park.

Starting in early 2025, we are excited to welcome **Molly Welsh** as our new Stormwater Program Manager. Molly, currently a Research Hydrologist with the USDA Agricultural Research Service, has a wealth of experience from her work with the Narragansett Bay Commission and RIDOT Stormwater Division. She will lead technical water quality and stormwater programs at SIC, further advancing our mission.

Our growing team reflects SIC's commitment to innovation, collaboration, and actionable solutions. Together, we are better equipped than ever to address stormwater challenges and improve water quality for the communities we serve.





The Stormwater Innovation Center is proud to recognize Lindsay Dulude as the 2024 Volunteer of the Year for her exceptional dedication to our mission. Over the past four years, Lindsay has collected and tested water samples and monitored green infrastrucure during stormwater events in Roger Williams Park, providing high-quality data that guides our restoration efforts. Her commitment has been pivotal in improving green infrastructure across Rhode Island. Beyond fieldwork, Lindsay has raised public awareness about stormwater management and clean water through media outreach, making a lasting impact on both the environment and the community.



OUR PARTNERS

Our partnerships are our strength

In addition to our dedicated core staff, the Stormwater Innovation Center thrives thanks to the incredible support of our partners, collaborators, and volunteers. These individuals and organizations form a dynamic network of expertise that drives our mission and serves as the foundation of our success.

We extend our heartfelt gratitude to the following partners for their invaluable contributions on SIC projects and programs in 2024:

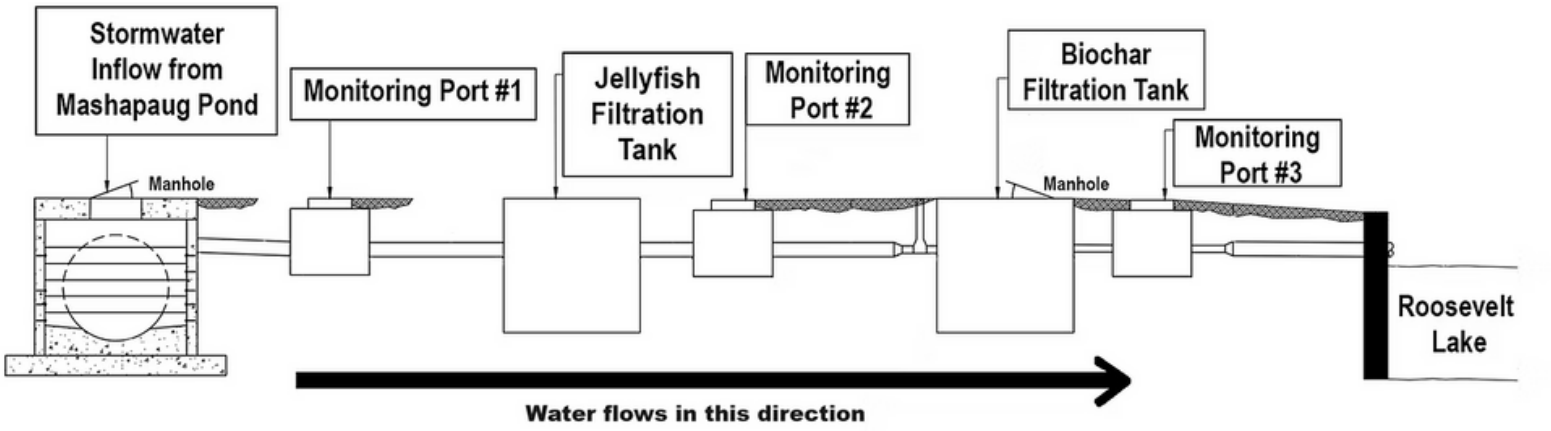
- Providence Parks Department
- Rhode Island Department of Transportation
- City of Providence
- City of Cranston
- City of Pawtucket
- Rhode Island Department of Environmental Management
- Rhode Island Department of Health
- Environmental Protection Agency (Narragansett and Chelmsford Labs)
- Massachusetts Statewide Municipal Stormwater Coalition
- University of Rhode Island
- Roger Williams University
- Rhode Island School of Design
- Brown University
- The Met School
- Paul Cuffee School
- Sophia Academy
- Eden Park Elementary
- URI Graduate School of Oceanography
- Metcalf Institute
- The Nature Conservancy of Rhode Island
- Audubon Society of Rhode Island
- Save the Bay
- Woonasquatucket River Watershed Council
- Green Infrastructure Coalition
- The Pawtucket Foundation
- Roger Williams Park Conservancy
- Roger Williams Park Zoo
- Providence Urban Wildlife Conservation Partnership
- Restore America's Estuaries
- Barrington Land Trust
- Groundwork RI
- Rhode Island Conservation Districts
- Narrow River Preservation Association
- SNEP Network
- Buena Grafica Social Studio
- The Below and Above Collective
- Movement Education Outdoors
- AS220
- Rhode Island Black Storytellers
- Tomaquag Museum
- Ferguson Water Works
- EJ Prescott
- Kleinfelder
- Pare Corporation
- Horsley Witten Group
- Groundbreaking Design
- DiPrete Engineering
- Contech Engineered Solutions
- Advanced Drainage Systems
- Bruce Hooke Consulting
- Cultech
- New Urban Arts
- Dwell Labs
- Atwater Donnelly
- Circus Dynamics
- Notable Works
- Prickly Ed's
- URI Watershed Watch
- Roger Williams Park Botanical Center
- Most importantly, all of our amazing volunteers!

STORMWATER MANAGEMENT PLANNING, DESIGN, CONSTRUCTION

STORMWATER TREATMENT TRAIN

IIn 2025, the Providence Parks Department continued its commitment to improving water quality in Roger Williams Park with the construction of a new stormwater treatment train, funded by the Rhode Island Infrastructure Bank.. This project, designed by Pare Corporation and constructed by Manafort Brothers, diverts and filters stormwater runoff from Mashapaug Pond and nearby stormwater catch basins.

During rain events, stormwater from the upper watershed is directed into the treatment train using modular stop logs, which can be adjusted to control the volume of diverted runoff. The treatment train uses two primary filtration technologies:







1-Jellyfish Filter Tank:

- This filter features cartridges that resemble jellyfish in appearance.
- As water enters the tank, trash, debris, and sand-sized particles are removed.
- The filter also captures smaller pollutants such as nitrogen, phosphorus, metals, and hydrocarbons.
- After this filtration step, the water flows into the next stage.





2-Biochar Filtration Tank:

- The biochar tank contains charcoal produced from natural materials like wood chips and plant residues.
- Biochar effectively filters out harmful nutrients and contaminants.
- Future plans include experimenting with other natural materials to enhance water quality further.

The treatment train was designed with research and continuous monitoring in mind. Monitoring ports are installed between each stage to collect data on water quality before and after filtration. This data helps improve maintenance practices and optimize filtration performance. We will also use this site to host and coordinate hands-on maintenance trainings for staff responsible for maintaining Jellyfish filters. Monitoring and trainings related to the treatment train are funded by RIDOT.



GREEN INFRASTRUCTURE RESTORATION

GREEN INFRASTRUCTURE NATIVE PLANTINGS

We supported and staffed native planting events at Roger Williams Park and at Barrington Middle School. Native grasses and shrubs were installed in two infiltration basins at Roger Williams Park, with help from Save the Bay staff.

We supplied plants, with the help of Prickly Ed's Cactus Patch Native Plant Emporium, to a project led by the Barrington Land Conservation Trust and a group of local high school students. The Conservation Trust had been collaborating with students to install a native plant garden in a bioswale located on the edge of the Barrington Middle School campus. The new planting area is adjacent to an existing teaching garden, and will be used by students to learn more about the benefits of native plants to support pollinators and wildlife populations, as well as to prevent flooding and improve water quality.







MONITORING

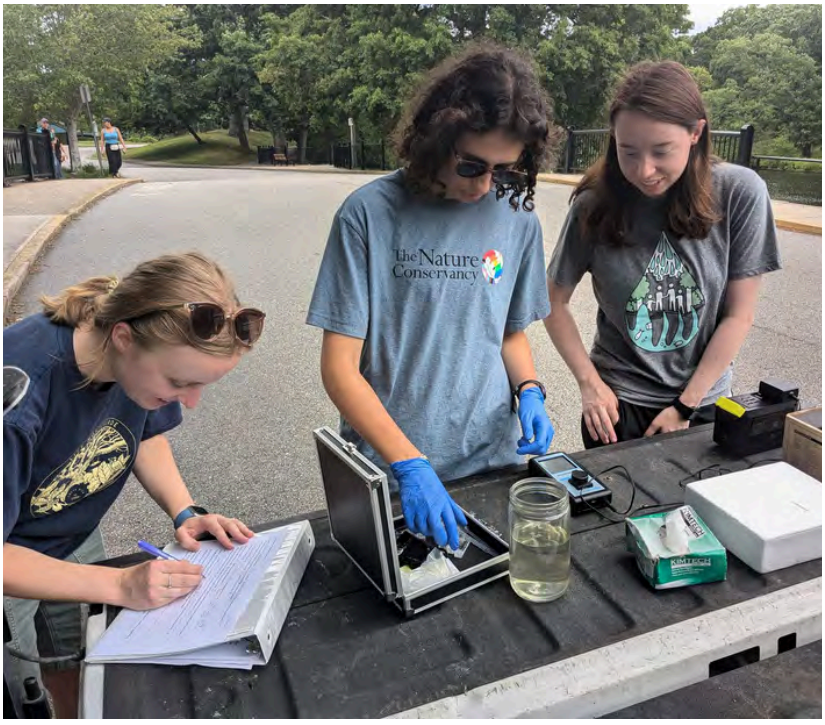
Cyanobacteria, Green Infrastructure, Water Quality

CYANOBACTERIA MONITORING

This year, we had another successful season collaborating with The Nature Conservancy, the Rhode Island Department of Environmental Management (RIDEM), the Rhode Island Department of Health (RIDOH), and the Cyanobacteria Monitoring Collaborative to monitor cyanobacteria in the Roger Williams Park watershed. Our monitoring covered key sites, including Tongue Pond, Spectacle Pond, Mashapaug Pond, Fenner Pond, and the Roger Williams Park Ponds.

We collected samples to analyze for chlorophyll and phycocyanin levels, microcystin toxin concentrations, and the genus types of cyanobacteria present. We encourage community participation in science monitoring through the BloomWatch App, where users can report potential cyanobacteria blooms by submitting photos.
Community outreach is vital to our mission. We provide education on the dangers of cyanobacteria blooms, how to identify them, and their causes. Long term, this outreach helps reduce bloom occurrences by minimizing stormwater runoff and keeps the public safe.

Our monitoring results are publicly accessible via a real-time data dashboard, ensuring transparency and promoting awareness of water quality in the community.





WATER QUALITY MONITORING

This year marked our 5th season participating in the Watershed Watch community science program. From May through October, we recruited, trained, and coordinated volunteers to collect water quality samples at five locations within Roger Williams Park.

Due to a significant backlog in processing lab results at the University of Rhode Island, we are still awaiting data from 2023 and 2024. Once received, these results will be added to our database and made publicly available on our dashboard.

This community science program provides valuable insights into the effectiveness of stormwater management and restoration efforts in the park. The data helps inform decisions and strategies for both current and future projects while actively engaging the community, empowering them as stewards of the park's ponds.





TREATMENT TRAIN MONITORING

After the Treatment Train was constructed in October, we installed equipment to measure water flow and water quality within the system. This monitoring helps us understand the site's performance under various conditions and maintenance schedules.







We will experiment by diverting different stormwater flows and events through the system. This will help determine the pollutant reduction potential for a range of flows, identify the optimal depth and size of stormwater events for treatment, and establish the best maintenance frequency to achieve maximum pollutant reduction.
The data collected is transmitted via cellular signal to an internal database. This real-time data allows us to quickly identify any issues with the system and check whether the sensors are clean and properly calibrated.



INFILTRATION RATE MONITORING

This year we evaluated infiltration rates at various green infrastructure sites in Roger Williams Park to assess whether sediment buildup in treatment areas is reducing infiltration rates below their original design specifications. This investigation employs multiple methods. Using an infiltrometer, we measure infiltration by adding a known volume of water and timing how long it takes for a specific depth to drain into the soil. Additionally, we have installed water level sensors in treatment areas to collect storm data at five-minute intervals. We can then calculate the time required for basins to infiltrate the collected stormwater. These efforts help identify maintenance and repair needs and improve the long-term performance of green infrastructure systems.



PROFESSIONAL TRAINING

Stormwater Expo, Webinars, Tours, Maintenance Training

STORMWATER EXPO

The sold-out 2024 Stormwater Innovation Expo, co-hosted with The Rhode Island Green Infrastructure Coalition, was a huge success. Held at the Roger Williams Park Casino, the event brought together municipal leaders, engineers, and industry professionals to explore the 2024 theme, “Partnerships for Statewide Climate Resilience.” The SIC organized outdoor field presentations, featuring expert insights from The Below and Above Collective, The Nature Conservancy in Rhode Island, Providence Parks Department, Pare Corporation, University of Rhode Island, Low Impact Development Technologies, LLC (LIDTECH), Everett J. Prescott Inc., and Kleinfelder. Continuing education credits for landscape architects were offered via LACES. Admission for state and municipal workers was funded by the RIDOT.







MAINTENANCE TRAININGS

We offered two green infrastructure maintenance trainings in 2024. Stormwater Compliance, a private green infrastructure maintenance company, facilitated the trainings along with Ferguson Waterworks. Gregg Novick and Nate Marles of Stormwater Compliance delivered content on BMP inspection and maintenance based on their experience in the field, serving primarily private GI owners. They brought along some of their specialized equipment, including a vac truck, to show attendees.



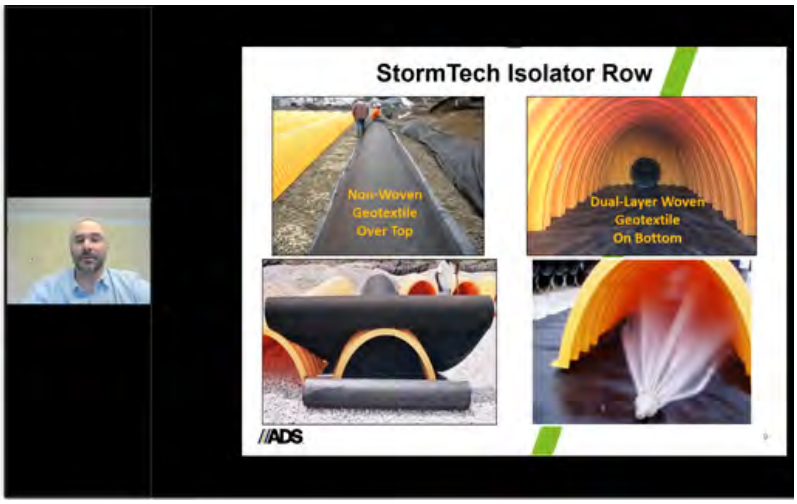






EMERGING TECHNOLOGIES WEBINAR

We offered a webinar as part of our yearly Emerging Stormwater Technologies series. In 2024, we focused on Cultec's Separator Row and StormTech Isolator Row Plus. Representatives from Cultec, Advanced Drainage Systems (ADS), and DiPrete Engineering presented on their experiences manufacturing and installing separator & isolator row technologies. Over 115 people registered for our webinar, and over 70 attended. A full recording of the webinar can be found on our website at stormwaterinnovation.org/cultec-ads-webinar.





RWP SITE TOURS

Among the many tours we hosted in 2024 were two comprised of water quality leaders in both Rhode Island and Massachusetts.

In June, we helped plan and host URI Coastal Institute Fellows on a tour that followed the Mashpaug watershed from start to finish. The SIC provided information to attendees at both the Mashpaug Pond and Roger Williams Park stops on the tour, highlighting our research, monitoring education, and outreach initiatives.

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In August, we hosted the Massachusetts Statewide Municipal Stormwater Coalition on a tour at Roger Williams Park. The Coalition is comprised of leaders across a variety of municipalities in Massachusetts that have MS4 permits. The SIC highlighted several BMPs at the Park, discussing lessons learned in the design, construction, maintenance, and restoration of municipal green infrastructure projects.

PUBLIC OUTREACH-ENGAGEMENT

Festival, School Programs, Tours, Signage, Media

RAIN HARVEST FESTIVAL

The SIC hosted its fifth annual Rain Harvest Festival at the Botanical Center Pavilion in 2024 - a day filled with community, education, and fun! The festival began with a land acknowledgment by Thawn Harris, who honored the traditional homelands of the Narragansett people and their enduring connection to the land and water. This set the tone for a day focused on our shared responsibility to protect the environment. We were treated to storytelling from the Rhode Island Black Storytellers (RIBS), and enjoyed local folk music from Atwater-Donnelly. Local artist Savonnara Alexander Sok, from AS220, installed a beautiful new mural located near green infrastructure adjacent to the Botanical Center. illustrating themes of aquatic life and green infrastructure. Visitors engaged in interactive tables from organizations, like Save the Bay and The Nature Conservancy, and local vendors, providing hands-on learning opportunities. Attendees were also encouraged to tap into their own creativity with crafts and sidewalk chalk art pieces. This event was our most well-attended yet, and we received glowing feedback from all partners and attendees who took part.





STORMWATER IN SCHOOLS

The SIC delivered Stormwater in Schools programming to students at Sophia Academy in Providence, Central High (New Urban Arts) in Providence, and Eden Park Elementary School in Cranston. Students assembled and painted bird and pollinator boxes that contained green roofs made with upcycled wooden boxes and native sedum. Pollinator boxes were placed at various Audubon refuges, the Roger Williams Park Botanical Center, and along the Blackstone River by the Blackstone River Watershed Council. Painted bird boxes were also auctioned at Audubon's Solstice Soiree or given to students to take home and install with their families, and one box was placed at Eden Park's campus. Educational signage with drawings and definitions from participating students will now accompanies all of the box placements.





We also planned for 2025 school programming, and are looking forward to working with some new schools. Collaborating with the City of Pawtucket, we will provide the program to environmental science students at Jacqueline Walsh School for the Arts. Students will work with art teacher Chris Kane to paint rain barrels that the City will give to residents free of charge. We will also be working with an environmental science class at Toll Gate High School in Warwick. This program will allow us to work in a new watershed and utilize a new field trip location that will be most relevant to the student body. We'll be working with Alvarez High School in Providence so we can engage the community in the Mashpaug Watershed as well. We also applied for a community grant from the Wood-Pawcatuck Wild and Scenic Stewardship Council. If granted, we would work with the Greene School in West Greenwich and tailor the content of our program, including the field trip, to that particular watershed area.

STORMWATER IN SCHOOLS





STORMWATER PSA VIDEO

We worked with a video production company to develop a Stormwater PSA video, depicting a character named “Stormwater” who creates havoc all around him! The style of the video mimics Allstate “mayhem” commercials. We created a list of contacts at local environmental nonprofits, as well as nonprofits focused on water quality and conservation in other coastal states. These contacts helped us promote the PSA as we rolled it out on social media in July, to many positive reviews. The video has received nearly 10,000 views on Facebook, YouTube and Instagram! As part of this project, we also created a new page for our website on how the community can take action to manage stormwater.



UNIVERSITY PARTNERSHIPS

In 2024, the Stormwater Innovation Center strengthened its collaborations with local universities, providing students with real-world case studies and hands-on learning opportunities in stormwater and water quality management.



Students from the Rhode Island School of Design (RISD) developed conceptual designs for proposed Total Maximum Daily Load (TMDL) Implementation Plan sites in Roger Williams Park, showcasing innovative approaches to addressing water quality challenges.

We partnered with the Metcalf Institute to engage a national cohort of journalists, offering insights into our work in stormwater management, research, and water quality monitoring. This collaboration aimed to help journalists effectively translate complex scientific concepts into accessible stories for the public.

Through our ongoing collaboration with Brown University's Institute at Brown for Environment and Society (IBES) internship program, we hosted an intern who contributed to our projects while gaining career experience, exposure to local Rhode Island initiatives, and valuable networking opportunities.





EARTH APRIL

The City of Providence and the Stormwater Innovation Center collaborated on the City's "Wonders of Water" Earth Month activities. The mission of our collaboration was to engage youth around stormwater concepts, as well as to engage community members by raffling barrels painted by after-school youth – a process facilitated by local teaching artists throughout the month of April. On the City's Earth Day event, the SIC spoke alongside Mayor Brett Smiley and other representatives from the City of Providence. The SIC also provided a green infrastructure tour alongside Parks Deputy Superintendent Brian Byrnes. We also highlighted the "Water is Life" mural restoration that local Narragansett artist Dawn Spears completed as part of the month's events.





DIGITAL MEDIA UPDATES

The addition of a temporary social media and outreach staff member, Emily Alberigo, allowed us to create a regular newsletter for our subscribers. These newsletters contain information about what the SIC is working on, but also custom educational pieces, and all is presented with engaging graphics and links.

With Emily's help, we redesigned our website for more user-friendliness, consistency, and the most up-to-date information. Updates will continue on our website on a rolling basis, but our 2024 website makeover has made navigation much simpler, and the content looks much more engaging!

FLOATING WETLAND

The Below and Above Collective, a group of scientists, artists, and botanists in Rhode Island, worked with the SIC to obtain required permits from RIDEM, as well as funding from NBEP, to install a floating wetland structure in Roger Williams Park. The floating wetland is a scientific experiment, allowing the Collective to gather information on how plant material removes harmful nutrients from water, as well as how the structure provides habitat for macroinvertebrates and other beneficial wildlife.





The structure also serves as a community engagement and education site. Local community members helped gather materials for the structure, and helped to launch it, and the SIC collaborated on a summer program with students from New Urban Arts. These students studied the floating wetland and created art for a zine about the life the structure hosts. Educational signage has also been installed by the structure so that parkgoers can learn more about its impact on local water quality and community building.





OUTREACH EVENTS

We tabled at a variety of events in 2024, reaching a diversity of audiences. We handed out a host of outreach materials, including educational handouts, volunteer recruitment materials, postcards, and even fun freebies like native seed packages and rain gauges. We tabled at the City of Providence's Volunteer Appreciation Event held at the Roger Williams Park Botanical Center, at Audubon's Transforming the Landscape native plants and pollinators symposium, Audubon's famous Raptor Weekend event, US Fish & Wildlife's Cops & Bobbers family event held at Roger Williams Park, URI's Science Saturdays free family event, and even tabled at a series of Cranston's farmers' markets, promoting the work the City of Cranston was completing to install green infrastructure on streets leading into Spectacle Pond. Artist Holly Ewald, with the help of graphic designers at Buenagrafica Social Studio, created postcards to make the mission of this project more accessible.











YOUTH CONSERVATION LEAGUE

We worked with Audubon's seasonal Youth Conservation League, as well as the Roger Williams Park Botanical Center and Save the Bay, to manage invasive vegetation at a few sites in Roger Williams Park. This impressive crew was able to cut down heaping piles of Euonymus alatus, or burning bush, a rapidly-spreading invasive shrub frequently used as an ornamental, that had overtaken a walking path in the Park. They also cut back invasives along the shoreline at the Botanical Center, making walking paths more accessible and water views more visible.



AMENDMENT TWO
FUNDING INCREASE and TIME EXTENSION
STORMWATER RETROFITS TO GREEN THE GREENWAY
CONSTRUCTION & MAINTENANCE AGREEMENT
PRIVATE PROPERTY AND
STATE FUNDS
by and between

STATE OF RHODE ISLAND
and the,
WOONASQUATUCKET RIVER WATERSHED COUNCIL

This AGREEMENT is entered into by and between the STATE OF RHODE ISLAND, through its Department of Transportation (hereinafter called the STATE), and the WOONASQUATUCKET RIVER WATERSHED COUNCIL (hereinafter called the WRWC) to scope, design, construct, operate and maintain green infrastructure stormwater treatment.

WHEREAS the STATE is mandated by Consent Decree to treat stormwater to improve certain impairments that negatively impact the water quality of the Woonasquatucket River,

WHEREAS the STATE and WRWC, have agreed that the installation of green infrastructure will benefit the water quality of the Woonasquatucket River, the Woonasquatucket Greenway, the STATE and the surrounding community,

WHEREAS the STATE is committed to sustainability, reducing temperature impacts, increasing river buffers, and improving water quality,

WHEREAS the STATE, in cooperation with the WRWC, agree that a partnership approach to meeting water quality and consent decree goals are mutually beneficial to both the STATE and the WRWC,

WHEREAS the concept of a "Greening the Greenway Stormwater Program" (hereinafter called the PROGRAM) is similar, consistent and complementary to an existing agreement between the STATE and the WRWC for the development of the Woonasquatucket Greenway Master Plan signed in 2011,

WHEREAS the WRWC has demonstrated experience and cost efficiency in the area of green infrastructure construction, education and maintenance,

WHEREAS the WRWC will investigate opportunities for green infrastructure on both public and private property,

WHEREAS WRWC and RIDOT entered into an Amendment One No-Cost Time Extension (hereinafter Amendment One) dated May 25, 2023 (attached hereto as Exhibit A) to a Construction and Maintenance Agreement (hereinafter Agreement) dated June 20, 2018 (attached hereto as Exhibit 1),

WHEREAS WRWC and RIDOT propose to amend the May 25, 2023 Amendment One and June 20, 2018 Agreement as outlined below,

NOW THEREFORE, the PARTIES hereby agree as follows:

a. The total reimbursements are not to exceed $3,500,000 for the Woonasquatucket River Watershed,
b. No PROJECT, under this agreement, shall be initiated after December 31, 2030,
c. The term of continuing reimbursements for any PROJECT shall not exceed December 31, 2033,
d. All other provisions of the Amendment One and the Agreement shall remain unchanged.

IN WITNESS WHEREOF, the STATE and the WRWC have caused this AGREEMENT to be executed by their duly authorized officials as of the _____ day of _____ 2024.

Recommended for Approval:

Alisa Diaz Richardson, Stormwater Administrator, RIDOT — Date: 4/17/24

Robert Rocchio, Chief Engineer for Infrastructure, RIDOT — Date: 4/22/24

Loren Doyle, Chief Operating Officer, RIDOT — Date: 4/24/24

John Igliozzi, Chief of Staff/Assistant Director for Legal Services, RIDOT — Date: 4/29/24

Peter Alviti, Director, RIDOT — Date: 4-30-24

Alicia J. Lehrer, Director, Woonasquatucket River Watershed Council — Date: April 12, 2024

Exhibit A: Amendment One, May 25, 2023
Exhibit 1: Construction and Maintenance Agreement, June 20, 2018

Exhibit A

AMENDMENT ONE
NO-COST TIME EXTENSION
STORMWATER RETROFITS TO GREEN THE GREENWAY
CONSTRUCTION & MAINTENANCE AGREEMENT
PRIVATE PROPERTY AND
STATE FUNDS
by and between

STATE OF RHODE ISLAND
and the,
WOONASQUATUCKET RIVER WATERSHED COUNCIL

This AGREEMENT is entered into by and between the STATE OF RHODE ISLAND, through its Department of Transportation (hereinafter called the STATE), and the WOONASQUATUCKET RIVER WATERSHED COUNCIL (hereinafter called the WRWC) to scope, design, construct, operate and maintain green infrastructure stormwater treatment.

WHEREAS the STATE is mandated by Consent Decree to treat stormwater to improve certain impairments that negatively impact the water quality of the Woonasquatucket River,

WHEREAS the STATE and WRWC, have agreed that the installation of green infrastructure will benefit the water quality of the Woonasquatucket River, the Woonasquatucket Greenway, the STATE and the surrounding community,

WHEREAS the STATE is committed to sustainability, reducing temperature impacts, increasing river buffers, and improving water quality,

WHEREAS the STATE, in cooperation with the WRWC, agree that a partnership approach to meeting water quality and consent decree goals are mutually beneficial to both the STATE and the WRWC,

WHEREAS the concept of a "Greening the Greenway Stormwater Program" (hereinafter called the PROGRAM) is similar, consistent and complementary to an existing agreement between the STATE and the WRWC for the development of the Woonasquatucket Greenway Master Plan signed in 2011,

WHEREAS the WRWC has demonstrated experience and cost efficiency in the area of green infrastructure construction, education and maintenance,

WHEREAS the WRWC will investigate opportunities for green infrastructure on both public and private property,

WHEREAS WRWC and RIDOT entered into a Construction and Maintenance Agreement (hereinafter Agreement) dated June 20, 2018 (attached hereto as Exhibit 1),

WHEREAS WRWC and RIDOT propose to amend the June 20, 2018 Agreement as outlined below,

NOW THEREFORE, the PARTIES hereby agree as follows:

a. The total reimbursements are not to exceed $1,500,000 for the Woonasquatucket River Watershed,
b. No PROJECT, under this agreement, shall be initiated after December 31, 2026,
c. The term of continuing reimbursements for any PROJECT shall not exceed December 31, 2029,
d. All other provisions of the Agreement shall remain unchanged.

IN WITNESS WHEREOF, the STATE and the WRWC have caused this AGREEMENT to be executed by their duly authorized officials as of the _____ day of _____ 2023.

Recommended for Approval:

Alisa Richardson Digitally signed by Alisa Richardson Date: 2023.04.19 13:57:57 -04'00'

Alisa Diaz Richardson, Acting Stormwater Administrator, RIDOT — Date:

Robert Rocchio, Chief Engineer for Infrastructure, RIDOT — Date: 4/24/23

Loren Doyle, Chief Financial Officer, RIDOT — Date: 4/24/23

John Igliozzi, Chief of Staff/Assistant Director for Legal Services, RIDOT — Date: 5/24/23

Peter Alviti, Director, RIDOT — Date: 5/25/23

Alicia Lehrer, Director, Woonasquatucket River Watershed Council — Date: April 18, 2023

Exhibit 1: Construction and Maintenance Agreement, June 20, 2018

STORMWATER RETROFITS TO GREEN THE GREENWAY

CONSTRUCTION & MAINTENANCE AGREEMENT

PRIVATE PROPERTY AND

STATE FUNDS

by and between the

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS,

and the,

WOONASQUATUCKET RIVER WATERSHED COUNCIL

This AGREEMENT is entered into by and between the STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, through its Department of Transportation (hereinafter called the STATE), and the WOONASQUATUCKET RIVER WATERSHED COUNCIL (hereinafter called the WRWC) to scope, design, construct, operate and maintain green infrastructure stormwater treatment.

WHEREAS the STATE is mandated by Consent Decree to treat stormwater to improve certain impairments that negatively impact the water quality of the Woonasquatucket River,

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WHEREAS the STATE is committed to sustainability, reducing temperature impacts, increasing river buffers, and improving water quality,

WHEREAS the STATE, in cooperation with the WRWC, agree that a partnership approach to meeting water quality and consent decree goals are mutually beneficial to both the STATE and the WRWC,

WHEREAS the concept of a "Greening the Greenway Stormwater Program" (hereinafter called the PROGRAM) is similar, consistent and complementary to an existing agreement between the STATE and the WRWC for the development of the Woonasquatucket Greenway Master Plan signed in 2011,

WHEREAS the WRWC has demonstrated experience and cost efficiency in the area of green infrastructure construction, education and maintenance,

WHEREAS the WRWC will investigate opportunities for green infrastructure on both public and private property,

NOW THEREFORE, in consideration of the foregoing premises and the mutual obligations contained herein, the STATE and the WRWC hereby agree as follows:

SECTION I - GENERAL PROVISIONS

1. The "GREENING THE GREENWAY STORMWATER PROGRAM" (PROGRAM) will consist of multiple individual PROJECTS that are consistent with the goals of the STATE Office of Stormwater Management.

2. If the WRWC and the STATE agree that a site of interest has MERIT, the site of interest will be defined as a PROJECT (hereinafter called a "PROJECT"). A PROJECT that achieves MERIT under this PROGRAM may include some or all of the following activities; researching green infrastructure opportunities, obtaining or brokering easements, educating the public about green infrastructure, requesting and awarding bids for green infrastructure construction, constructing green infrastructure projects, grant management, managing payments, managing construction contracts, and stormwater maintenance.

3. The authorized start date of the PROGRAM under this agreement for WRWC to be eligible for reimbursement from the STATE, shall be the execution of this agreement. For this agreement:
    a. The total reimbursements are not to exceed $1,500,000 for the Woonasquatucket River Watershed.
    b. No PROJECT, under this agreement, shall be initiated after 5 years from the authorized start date of this AGREEMENT,
    c. The term of continuing reimbursements for any PROJECT shall not exceed 8 years from the authorized start date of this AGREEMENT.

4. A PROJECT is initiated when a site of interest, for the establishment of green infrastructure, located within the Woonasquatucket River Watershed and has obtained MERIT (as determined by the STATE and defined in #5 below). The WRWC or the STATE may propose a site of interest to either party under this PROGRAM.

5. MERIT is achieved for each PROJECT upon the completion of a project Charter. The Project Charter, at a minimum, must include the following (see also Exhibit A):
    a. A cost benefit analysis, by the STATE that documents the benefits toward the Consent Decree against projected costs
    b. A list of stakeholders,
    c. A PROJECT scope
    d. An estimated budget.
    e. Proof of a "good faith effort" by the WRWC to find matching grant funds for each project
    f. A letter of cooperation from the owner of the site, if required.
    g. A signature from the assigned financial administrator at the WRWC. Such administration shall include but not be limited to the maintenance of a PROJECT account, as well as processing invoices, change orders, and contract addenda. The WRWC contact person shall maintain all financial records for the project.
    h. A Funding Authorization Letter from the STATE to authorize a reimbursement budget for the WRWC.

SECTION II – PROJECT DESIGN PHASE FOR PROJECTS WITH MERIT

6. The STATE will be responsible for the design of the PROJECT and the development of a project plan for all PROJECTS initiated under this PROGRAM.

7. The STATE's Office of Stormwater Management will review all reimbursement requests for time and materials when submitted by the WRWC. The STATEs Office of Stormwater Management will review these requests for consistency with the approved Project Charter. An example of the reimbursement requests can be found in Exhibit B of this Agreement.

8. The WRWC be responsible for obtaining an appraisal of the PROJECT property by a qualified appraiser certified and licensed in the State of Rhode Island. The WRWC shall record and document all meetings with the property owner(s) to obtain easements or right-of-ways as may be necessary. Said documentation may be submitted to the STATE for review and approval.

9. During the design phase of the PROJECT, the STATE may terminate the PROJECT at any time, for any reason. If the STATE notifies the WRWC, in writing, that the PROJECT is terminated, no further reimbursements will be authorized other than those already incurred. (All costs incurred by the WRWC and any vendor engaged to perform services through the date of notification shall be paid). The WRWC must submit all invoices to RIDOT within 90 days of receipt of written notice from the STATE of a terminated project, in order to be eligible for reimbursement.

10. A written decision by the STATE to continue or terminate the project will be required at the 30% design stage. If WRWC and/or the Property Owner do not approve of the PROJECT, and negotiations become infeasible, the PROJECT may be terminated. The continuation to full design shall be formalized by:
    a. A memo from the WRWC stating the agreement with the 30% design plans of the PROJECT,
    b. a copy of a temporary easement from the Property Owner, private property easements or other right-of-way permissions, if an easement or ROW is necessary to both build and maintain the PROJECT,
    c. A revision of the budget and cost benefit analysis by the STATE,
    d. A memo signed by the STATEs Stormwater Administrator authorizing the continuation of the project, and
    e. A revised Funding Authorization Letter, if required.

11. The WRWC will respond with any review comments all documents generated by the STATE or the STATEs design engineer within twenty (20) calendar days of their receipt.

12. A completed design package shall include, at a minimum: site plans, advertising and bid documents, all required permits and any necessary easements.

SECTION III – ADVERTISE, AWARD, AND CONSTRUCTION PROVISIONS

13. The STATE will provide the WRWC with the design package for advertisement along with a revised, if necessary, copy of the STATEs Funding Authorization Letter. The WRWC agrees to advertise and award PROJECT for elements of the PROJECT that the WRWC does not want to complete with their existing resources. All advertising and awards shall be conducted in accordance with State Regulations and Rhode Island General Laws.

14. The WRWC may select a Contractor to construct a project as designed and in accordance with the bid specifications. The STATE must approve the WRWC selection prior to the WRWC entering into a contract with a selected contractor. The WRWC, through its Contractor, will construct the improvements in accordance with the Plans and Specifications for the PROJECT

15. The WRWC shall initially be responsible for payment of all costs associated with construction of a PROJECT, and the State will reimburse the WRWC for the costs of a PROJECT including, but not limited to acquisitions, construction, and maintenance, up to and not exceeding One and a Half Million Dollars ($1,500,000) for all PROJECTS approved under this Agreement.

16. The STATE acknowledges that the WRWC may seek third party financing with the STATEs Funding Authorization Letter for construction of the approved PROJECT(S), and such third parties will rely on the obligation of the STATE to make reimbursements to the WRWC as set forth in this AGREEMENT for the repayment obligation of the WRWC to the third party financing entity. The STATE further acknowledges that the WRWC may assign and pledge (i) its rights to reimbursements from the STATE under this AGREEMENT, and (ii) its other rights and remedies under this AGREEMENT, to a third party financing entity. The STATE agrees to indemnify and hold harmless the WRWC for actions or claims brought against the WRWC as a result of the STATE's failure to provide reimbursements or otherwise fail to meet its obligations in accordance with the terms of this AGREEMENT. The STATE will reimburse the WRWC for banking fees (subject to prior approval), as incurred from third party financing.

18. The STATE will conduct routine and final inspections of the PROJECT with the Contractor, the WRWC and the Property Owner to ensure the PROJECT was completed in conformance to the plans and specifications for the PROJECT.

19. The following are the General Program Requirements for the finalization, acceptance and closeout of each PROJECT. Finalization and acceptance of the PROJECT shall be performed by the State. The following items are required to finalize and close the PROJECT.
    a. Final inspection report
    b. Corrective action plan(s) and Punch list resolutions
    c. Letter of Project acceptance, as specified by standard STATE procedure, certifying that the PROJECT has been completed in accordance with the contract documents.

SECTION IV – OPERATIONS, MAINTENANCE, PUBLIC EDUCATION AND OUTREACH

20. After finalization, acceptance and closeout of the PROJECT is completed, the WRWC will maintain, and if deemed necessary by the STATE, reconstruct portions of the PROJECT, in accordance with the long-term RIDOT Operation and Maintenance Plan developed by the STATE. Amendments to the Operations and Maintenance Plan must be approved by the STATE.

21. The STATE may choose to maintain some of the green infrastructure as part of the PROJECT and as specified in the Operations and Maintenance Plan.

22. The WRWC shall record and document all maintenance and minor reconstruction of any PROJECT and submit the appropriate paperwork for reimbursement. The STATE will reimburse the WRWC for time and materials required to conduct operations and maintenance of any PROJECT constructed through this PROGRAM.

23. The WRWC may use this agreement to supplement costs for public education and outreach projects, such as educational tours of the stormwater treatment units. WRWC must obtain a funding authorization letter (Approval) from RIDOT prior to the initiation of an education or outreach PROJECT.

SECTION V – GENERAL PROGRAM REQUIREMENTS AND CONDITIONS

24. The following are the General Program Requirements for the submission of reimbursement requests by the WRWC:

a. The WRWC shall invoice the State for work completed by its contractor (including WRWC construction staff) for the project. This includes, but is not limited to, labor and materials, canceled checks or other proof of payment.

b. The WRWC shall submit reimbursement requests (in the form attached as Attachment C) with a cover letter signed by the WRWC Director containing the following language and provisions:

> "I hereby certify that the materials and work for which payment is being requested meets the requirements of the contract documents and approved change orders in all respects, except as noted below. This certification is made in full cognizance of the Federal False Statements provision under United States Code, title 18, section 1020, and I am duly authorized to certify on behalf of the WRWC."

c. The STATE agrees to review each reimbursement request within a reasonable time period, and if such request is in proper form, provide payment to the WRWC within 30 business days of approval of each reimbursement request. If further information is required by the STATE in connection with a reimbursement request, it shall provide to the WRWC within 10 business days a description of the information required to process the

reimbursement request.

d. The WRWC shall indicate on each reimbursement request to the STATE, the third party financing agent, if one exists. If a third party finance agent exists, the STATE will send a copy of the reimbursement approval to the third party for payment by the third party. The STATE financial office will reimburse funds directly to the WRWC.

25. The WRWC shall also provide to the STATE and any other entity providing financing for PROJECTS constructed under this agreement, its annual audited financial statements within 3 months of the end of the WRWC fiscal year.

26. All costs billed under this Agreement are subject to audit. The WRWC agrees to retain and maintain all records of costs incurred for a period of five (5) years from the date of final payment and all other pending matters are closed.

27. To the extent applicable, in accordance with 2 CFR 200.501(a), the WRWC may be required to obtain a single audit from an independent auditor, if the WRWC expends $750,000 or more in total Federal funds in their fiscal year. If required, the WRWC must submit the federal form SF-SAC and a Single Audit Report Package within 9 months of the end of the WRWC fiscal year or 30 days after receiving the report from an independent auditor.

28. The STATE reserves the right to terminate this Agreement if the STATE funds are rescinded. The STATE will provide the WRWC with written notice of such termination, with as much advance notice as possible of any STATE or Federal action to rescind funs so that the WRWC can notify consultants and/or contractors to stop work in a timely manner. The WRWC shall be reimbursed by the STATE for all expenses incurred pursuant to the terms of this Agreement through the date of receipt of written notice by the STATE of termination of this Agreement or rescission of funds for a PROJECT(S), including any costs reasonably incurred by WRWC after the date of receipt of written notice by the STATE to cease work on the project in a commercially reasonable manner.

29. This Agreement may not be altered or amended except by written agreement signed by all the parties.

IN WITNESS WHEREOF, the STATE and the WRWC have caused this AGREEMENT to be executed by their duly authorized officials as of the _____ day of _____, 2018.

Recommended for Approval:

Brian M. Moore, Stormwater Administrator, RIDOT — Date: 6-7-18

Robert Rocchio, Chief Engineer for Infrastructure, RIDOT — Date: 6-11-18

Loren Doyle, Chief Financial Officer, RIDOT — Date: 6/18/18

John Igliozzi, Assistant Director for Legal Services, RIDOT — Date: 6/13/18

Peter Alviti, Director, RIDOT — Date: 6/20/18

Alicia Lehrer, Director, Woonasquatucket River Watershed Council — Date: 6/5/2018

Exhibits:
A - Sample Project Charter
B - Form of request for reimbursement documentation

RIDOT/WRWC

Greening the Greenway Stormwater Program

Trash & Litter Abatement Project Charter

GENERAL PROJECT INFORMATION		
Project Name		**Project No.**
Addressing and Preventing Trash and Litter in the Lower Woonasquatucket Watershed		3573887-7
		Date Prepared
		01-24-2023
Task Request $$	**Task**	**Task Order Detail**
$160,000	7	☒New ☐Amendment
RIDOT Project Sponsor	**RIDOT Project Manager**	
Alisa Diaz Richardson, PE PMP Interim Stormwater Administrator	Alisa Diaz Richardson, PE PMP Project Manager	
RIDOT Project Sponsor	**WRWC Project Manager**	
Alicia J. Lehrer Executive Director	Lisa Aurecchia Director of Projects	
Team Members		
Lisa Aurecchia, Director of Projects, Woonasquatucket River Watershed Council (WRWC) Alicia Lehrer, Executive Director, WRWC Mark Pereira, Civil Engineer, WRWC Clare Brown, Events and Advocacy Coordinator, WRWC Jacob Gorke, Greenway Manager, WRWC Amanda Peavey, Education Director, WRWC		
Other Key Stakeholders		
City of Providence Department of Public Works Rhode Island Department of Environmental Management Rhode Island Resource Recovery Corporation ONE Neighborhood Builders		

SCOPE STATEMENT

Business Need and Problem Statement

RIDOT is obligated to prevent trash from entering the Woonasquatucket River from its roadways and bike path, the Northwest Trail/Woonasquatucket River Greenway (Greenway). RIDOT has an agreement with the WRWC to find opportunities for stormwater treatment and pollution prevention that move towards treatment goals outlined in their stormwater control plans. RIDOT has found the WRWC to be a capable partner towards meeting these goals. RIDOT would like to build upon its partnership with WRWC to find opportunities for trash, litter and illegal dumping prevention and control that move towards pollution prevention goals outlined in their stormwater control plans. The WRWC already regularly removes extensive amounts of trash as part of its routing maintenance of the Greenway and hosts community cleanups to remove trash in densely littered areas in partnership with RIDOT. The Woonasquatucket River Watershed is highly urbanized and trash removal is one of the biggest issues the WRWC River Rangers focus on. It would be in RIDOT and WRWC's best interest to add a primary focus on trash prevention, a more sustainable solution.

RIDOT/WRWC

Greening the Greenway Stormwater Program

Trash & Litter Abatement Project Charter

Project Goals and Objectives (Deliverables)

The purpose of this project is to dedicate resources towards a 3 year litter prevention program in the lower Woonasquatucket River Watershed to reduce the amount of trash entering the Woonasquatucket River by 10% per year for the next 3 years. The approach is multifold.

1. Resident Outreach: WRWC will distribute through flyers, signage and other materials to residents in the lower watershed on how to properly dispose of different types of trash and the services available to them to help with this disposal.
2. Anti-Litter Campaign:
    a. Focus Groups & Campaign Development: WRWC will convene at least two resident focus groups with a graphic artist to create a comprehensive, coordinated anti-litter public awareness campaign that includes consistent, memorable Rhode Island themed anti-littering messaging.
    b. Campaign Pilot: This campaign will be piloted in the Olneyville neighborhood of Providence where litter and illegal dumping are most prevalent.
3. Supporting Anti-Litter Policies: WRWC will work with municipal governments, residents, and other stakeholders to support and contribute to ordinance measures that will help reduce litter.
4. Physical and Engineering Solutions: WRWC will evaluate physical and engineering solutions to reduce trash inputs to the Woonasquatucket River.
5. Education: WRWC will offer trash education in schools and at community events to educate people of all ages of the detrimental effects of litter. Educational programs could include adult and student tours of the trash skimmer to be re-installed at the Hot Club dock on the Providence River.

Benefits

The prevention of litter counts towards the TMDL and stormwater control plan, while benefiting the environment, and helping to educate the public.

Sucesses with the WRWC anti-litter program can be shared and scaled for use throughout RIDOT's service areas.

RIDOT/WRWC

Greening the Greenway Stormwater Program

Trash & Litter Abatement Project Charter

Metrics

- Develop and distribute at least one flyer in English and Spanish to educate residents on proper disposal and available services
- Develop three (3) to five (5) signs in English and Spanish on the importance of preventing litter and/or disposal and available services
- Host at least two (2) focus groups with at least ten (10) Olneyville residents each to develop anti-litter graphics and messaging
- Develop and deploy at least ten (10) anti-litter campaign pieces based on focus group input that can include but is not limited to signage, media/social media public service announcements, media/social media graphic/video posts.
- Monitor and help develop legislation and policies in coordination with residents, government and non-profit partners as opportunities arise.
- Evaluate at least three (3) engineering- or physically-based litter prevention measures for effectiveness, feasibility and affordability along with RIDOT partners. Implement any and all that meet all three criteria.
- Develop litter-prevention based curriculum to incorporate into existing WRWC K-12 Environmental Education programs and adult clean-up programs.
- Educate at least 500 K-12 students and 200 adults annually using curriculum.
- To continue education and flyer outreach for an additional 2 years. Funding is available from 2023 to 2026
- To provide a final report in 2026 detailing efforts and any measurable reductions in trash, nips and mattresses.

Supporting Budget Detail

Cost

A budget of $160,000 is allocated.

Phase	Estimated Cost	Funding Agency	Account #
Residential Outreach Flyers, Signage & Distribution	$10,000	RIDOT	PO# 3573887
Anti-Litter Focus Groups & Campaign Rollout	$35,000	RIDOT	PO# 3573887
Support Anti-Litter Ordinances	$5,000	RIDOT	PO# 3573887
Evaluation and possible deployment of engineering/physical anti-litter solutions	$20,000	RIDOT	PO# 3573887
Curriculum development and educational programs	$20,000	RIDOT	PO# 3573887
Grant & Project Management	$10,000	RIDOT	PO# 3573887

RIDOT/WRWC

Greening the Greenway Stormwater Program

Trash & Litter Abatement Project Charter

Continuance (2025&2026) of Ordinance Support, deployment of engineering/physical solutions & educational programs	$60,000	RIDOT	PO #3573887

Constraints/Assumptions

- The project continues to be cost effective
- WRWC will be able to maintain the treatment system for the life of the project
- The RIDOT will continue to have a stormwater program that is adequately funded

Risks

LOW – RIDOT will review and approve all anti-litter measures developed through this project.

Additional Information

Sponsor Responsibilities

- Provide funding on a timely basis
- Clear the path for project execution by communicating with organization
- Be supportive and flexible
- Protect the integrity of the project objectives
- Follow defined change control procedures

Program Manager Responsibilities

- Maintain communications with the RIDOT
- Carry out project as described herein
- Request reimbursements in accordance with the agreement

RIDOT Project Manager Responsibilities

- Make sure that the project is adequately updated into VUEWorks and the relevant Stormwater Control Plans
- Assure that the project stays on-scope and continues to be in the best and most cost-effective interest of the State
- Approve reimbursements submitted by the WRWC

Links to Other Projects

This project is part of a comprehensive stormwater program and agreement with the Woonasquatucket River Watershed Council. Many projects are anticipated to move through this program which provide benefits because the projects are grouped together.

We agree that this is a viable project, and we will support it.

Date: 2-13-23	Alicia J. Lehrer, Executive Director Date: 01/24/2023
RIDOT Project Manager	WRWC Program Manager
Date: 2-13-23	Alicia J. Lehrer
RIDOT Project Sponsor	

RIDOT/WRWC

Greening the Greenway Stormwater Program

Preferred Equipment Resource

Project Charter

GENERAL PROJECT INFORMATION		
Project Name		**Project No.**
Preferred Equipment Resource		3573887-8
		Date Prepared
		March 20, 2023
	Task	**Task Order Detail**
$425,000	8	☒New ☐Amendment
RIDOT Project Manager	**WRWC Program Manager**	
Alisa Diaz Richardson, PE PMP	Alicia Lehrer Director of WRWC	
RIDOT Project Sponsor	**WRWC Project Manager**	
Robert Rocchio, PE Chief Engineer Infrastructure	Lisa Aurecchia Director of Projects	
Team Members		
Alicia Lehrer, Lisa Aurecchia, Mark Pereira, Woonasquatucket River Watershed Council (WRWC) Chris Feeney, Barbara Nazarewicz, Dara Wais, Stantec, Susan Votta		
Other Key Stakeholders		
Ken Bent, owner Preferred Equipment Resource		

RIDOT/WRWC

Greening the Greenway Stormwater Program

Preferred Equipment Resource

Project Charter

SCOPE STATEMENT

Business Need and Problem Statement

RIDOT must provide water quality improvements for stormwater that discharges to the Woonasquatucket River. RIDOT has an agreement with the WRWC to identify eligible waterfront properties to install retrofit stormwater management practices to meet their stormwater goals. The WRWC reached out to Ken Bent, the owner of Preferred Equipment Resource, to implement retrofit stormwater management practices throughout his property. The client has indicated that he is receptive to installing such practices to improve his lot. Mr. Bent has coordinated and worked with WRWC on several prior projects.

The purpose of this project is to improve water quality and to reduce the amount of stormwater runoff coming from the rooftops and paved surfaces that drain to the Woonasquatucket River and to construct an outdoor classroom by the Manton Fish Ladder. The proposed retrofit stormwater management practices include pavement removal and wild seed planting along the perimeter of the entrance driveway and lot, bioretention/flow-through planters along the front and side faces of the building, and water quality improvements to the existing detention pond. The outdoor classroom will consist of seating, paths, and access to the water that will improve erosion conditions. In addition, the project includes two multi-lingual educational signs at the pond retrofit and proposed outdoor classroom to engage the community. Approximately 16,000 square feet will be depaved with wild seed mix planted in place. Wild seed mix will also be added to the gravely overgrown area near the southeast of the parking lot to improve drainage. Flow-through planters will be constructed by WRWC's River Rangers. The pond retrofit will consist of removing the existing fence, constructing a rock entrance, dewatering the existing pond, modifying the existing outlet structure, clearing and grubbing the area and removing sediment, adding wetland plantings and installing a rock forebay.

We anticipate that these stormwater management practices can be used to treat an equivalent of approximately 2.5 acres of impervious cover from a catchment of approximately 3.7 acres.

The project will include a site survey and feasibility study (30% Design), project design (70% Design) and permitting, and the development of construction and bidding documents (100% Design).

Project Goals and Objectives (Deliverables)

1. Site Survey & Feasibility Study (30% Design)	December 2022
2. Project Design (70% Design)	March 2023
3. Permitting	May 2023
4. Bidding and Construction Documents (100% Design)	June 2023
5. Start Construction	August 2023
6. Complete Construction	October 2023
7. Press Event	October 2023
8. Begin Operations and Maintenance	October 2023
9. One Year of Maintenance	October 2024

RIDOT/WRWC

Greening the Greenway Stormwater Program

Preferred Equipment Resource

Project Charter

Benefits
The stormwater improvements planned for this property will be located at the surface, thereby creating an opportunity for co-benefits such as improved air and water quality, increased habitat, reduced urban heat island effect, among others, in addition to supporting RIDOT in meeting the goals of their stormwater control plan. The WRWC has a relationship and trust with this property owner as they currently park their trucks in his lot and maintain the fish ladder at the driveway entrance. WRWC will use this project as an expansion of their self-guided Green Infrastructure Tour and their stormwater educational programming in Providence.
Metrics
• Approximately 3.7 acres of impervious acres are within the catchment area of the proposed stormwater management systems. The systems treat a total of 2.5 acres of impervious cover. • Convert 0.4 impervious paved acres to native wild plantings. • Cost/treatment acre under $200,000/acre of treatment

SUPPORTING BUDGET DETAIL

Cost

The estimate of probable cost is expected to be in the range of $300,000 to $500,000 and $120,000/acre to $200,000/acre for RIDOT.

Phase	Estimated Cost	Funding Agency	Account #
Construction: Water Quality Retrofit to Existing Pond, Bioretention (Flow-Through) Fabricated Rain Box, Depaving/Wild Seed Planting, Wild Seed Planting, Additional Costs (excludes Outdoor Classroom)	$405,000	RIDOT	3573887-8
Fabricated Rain Boxes	$38,932	WRWC	SNEP Grant
Value of Permanent Drainage Easement	$82,740	Preferred Equipment Resource	In-Kind Donation
WRWC Project Management, procurement process & education	$20,000	RIDOT	3573887-8

RIDOT/WRWC

Greening the Greenway Stormwater Program

Preferred Equipment Resource

Project Charter

Funding Commitments by Agency		
Agency	**Amount**	**Account**
RIDOT	$410,000	3573887-8
WRWC	$38,932	WRWC SNEP
Preferred Equipment	$82,740	In-Kind

Constraints/Assumptions

- The project continues to meet the framework for credits outlined by RIDEM and EPA.
- The project continues to be cost effective.
- WRWC and Preferred Equipment Resource will be able to maintain the stormwater management practices for the life of the project.

RIDOT will continue to have a stormwater program that is adequately funded.

Risks

LOW - A Permanent Drainage Easement will be provided to RIDOT for continued interest in maintenance.

Additional Information

- Sponsor Responsibilities

- Provide funding on a timely basis.
- Clear the path for project execution by communicating with organization.
- Be supportive and flexible.
- Protect the integrity of the project objectives.

Follow defined change control procedures.

- Program Manager Responsibilities

- Maintain communications with the Preferred Equipment Resource, Engineer Team, and RIDOT

RIDOT Project Manager Responsibilities

- Make sure that the project is adequately updated into RIDOT's online GIS STU Editor and the relevant Stormwater Control Plans.
- Assure that the project stays on-scope and continues to be in the best and most cost-effective interest of the State.
- Approve reimbursements submitted by the WRWC.

Links to Other Projects

- This project is part of a comprehensive stormwater program and agreement with the Woonasquatucket River Watershed Council. Many projects are anticipated to move through this program which provides benefits because the projects are grouped together.

We agree that this is a viable project, and we will support it.

Date: 3/22/23	Alicia J. Lehrer Date: 03/21/2023
RIDOT Project Manager	**WRWC Program Manager**
Date:	Alicia J. Lehrer, Executive Director
RIDOT Project Sponsor	

ATTACHMENT 1F - WRWC Project Status _121724

WRWC/RIDOT STORMWATER PARTNERSHIP PROJECTS – STATUS UPDATE AS OF 12/17/2024

Organizations:

RIDOT Stormwater Group	Alisa Richardson, PE	Jennifer Ryan	Susan Votta	
Providence	Jessica Lance (Planning)	Craig Hochman, PE (Eng.)		
WRWC	Alicia Lehrer	Lisa Aurecchia	Mark Pereira, PE	Bridget Zwack, PE
Stantec	Chris Feeney, PE (PM)	Lucy Turner (DeSoto)	Julia Work, EIT	Barbara Nazarewicz (Bath)

Project	**Organization Involved**	**Funding**	**Current Progress: Organization and Role**	**Schedule**	**Action Items as of: 12/17/24**
Preferred Equipment – Johnston GSI & Classroom at Fish Ladder	RIDOT WRWC Stantec Pref. Equip. – property owner	Pref Charter (3/2023) -RIDOT: $425,000 -WRWC SNEP: $38,932 -Pref. Equip.: $82,740 (In-Kind) Outdoor: USFW & Fidelity Grants	**Stantec:** Construction Admin: • Preferred (Pollinator gardens/basin/swale): 11/22 punch list • Classroom construction: 11/22 punch list. • Preferred & Outdoor Classroom: seeding performance TBD Spring 2025.	**Spring 2024:** Verify seeded areas invasive-free, have adequate plant/grass establishment. 1 year maintenance warranty date TBD. After 1 year maintenance warranty, River Rangers perform O&M.	**Stantec:** • Address Punch list items. • Manafort change orders. • Provide complete O&M Guidance. • Outdoor Classroom: Erosion due to 12/11 rain event. • O&M Plan **RIDOT:** • Review draft Crossman Engineers survey for permanent easement. • C&M agreement needed? **WRWC:** • Get Preferred finalized signage to RIDOT.
Bath Street – Providence GSI/Pocket Park (Bath St GSI and Promenade coordination)	RIDOT Providence – property owner WRWC Stantec	RIDOT: $258,180 WRWC SNEP: $115,678	**Stantec:** 90% design complete. -IC Reduction: 0.146 acres -Cost estimate: $837,000 **-RIDOT: $29,200 share for $200,000/acre.** **Stantec/Providence/WRWC:** Slip lane coord. **WRWC:** Complete agreements.	**08/2024:** 30% Design **12/2024:** 90% Design.	**Stantec**: • 90% Design (to include Fire utility) with O&M Plan. To be bid with DeSoto (plans bid together). • Verify if wetland permit needed. • C&M Agreement Exhibits (11/14): O&M Plan • Letter to RIDEM re: soil infiltration with cover detail (11/22/2024). **RIDOT:** • Provide permanent easement template. Verify if As-Builts sufficient or need survey. **WRWC:**

Project	Organization Involved	Funding	Current Progress: Organization and Role	Schedule	Action Items as of: 12/17/24
			RIDOT: Agreement coordination.		• Review 90% design internally. • Draft charter. • Submit draft C&M Plan to City (need O&M Plan from Stantec). • Draft perm easement based on RIDOT verification if As-Builts sufficient or need survey. • Follow up with property owners next door re: invasives early Spring 2025 again.
De Soto Street – Providence GSI	RIDOT Providence WRWC Stantec	WRWC SNEP - GSI Construction: $80K Plant Material: $50K RIDOT: Design funds only; No Charter.	**Stantec:** 90% design complete. -IC Reduction: 0.405 acres -Cost estimate: $248,000 -RIDOT: $0 **-Over $200,000/acre; RIDOT design funds only.** **WRWC:** Complete agreements. -Prior to construction check if SNEP requires NEPA. -Charter not required; WRWC responsible for construction. **RIDOT:** Agreement coordination.	**08/2024:** 30% Design **12/2024:** 90% Design.	**Stantec:** • 90% Design with O&M Plan. To be bid with Bath St. • Wetland permit status. • C&M Agreement Exhibits (11/14): GIS Screenshot and O&M Plan. **RIDOT:** • Provide permanent easement template. Verify if As-Builts sufficient or need survey. **WRWC:** • Review 90% design internally. • Draft C&M agreement and permanent easement. No charter.
Groden Center – Providence Greenway Access/GSI	RIDOT WRWC Stantec Groden Center JCM Design & Display	Groden: $25,000 RIDOT: $300,000 RIDEM Grant: $298,955 WRWC: $11,349	**Stantec:** 90% Design Complete. • Review icing on ramp/rails. • Hide dumpster with screen/fencing. • Verify existing utilities for new drainage pipe. • Verify 100-yr floodplain. -IC Reduction: 1.5 acres	**03/01/2024:** 30% design completed. **12/2024:** 90% design.	**Stantec:** • 90% design with O&M Plan. • Updated Cost Estimate. • Wetland permit status. • Soils: Address 10/30 RIDEM LOR. • C&M Agreement Exhibits (11/14): GIS Screenshot and O&M Plan. **RIDOT:**

Project	Organization Involved	Funding	Current Progress: Organization and Role	Schedule	Action Items as of: 12/17/24
			-Cost estimate: $635,304 (based on RIDEM grant) **-RIDOT: $300,000 share for $200,000/acre.** **WRWC:** Complete agreements. **RIDOT:** Agreement coordination.		• Provide template for 2 draft permanent easements. Survey most likely needed. • Review draft charter. • Verify if 1 or 2 C&M agreements needed. **WRWC:** • Review 90% design internally. • Address RIDOT charter comments; include updated Cost Estimate. • Draft C&M agreements and Permanent Easements. • Follow up with RIDEM for Climate Resilience Grant funding schedule.
WRWC/RIDOT Maintenance	RIDOT WRWC		**WRWC:** Charter.	**In progress**	**WRWC:** Develop charter.
Smithfield HS	RIDOT WRWC		**WRWC:** Complete agreements. **RIDOT:** Agreement coordination.	**In Design**	**WRWC:** • Engineer proposal comments. • Drafted charter (insert IC credit info to send to RIDOT). • Draft C&M agreement and Permanent Easement.

GSI – Green Stormwater Infrastructure

STORMWATER IMPROVEMENT PARTNERSHIP
CONSTRUCTION & MAINTENANCE AGREEMENT
PRIVATE PROPERTY AND
STATE FUNDS

by and between the

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

and the

RHODE ISLAND STATE CONSERVATION COMMITTEE

This AGREEMENT is entered into by and between the STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, through its Department of Transportation (hereinafter called the STATE), and the Rhode Island State Conservation Committee (hereinafter called the RISCC) to scope, design, construct, operate and maintain green infrastructure stormwater treatment.

WHEREAS the STATE is mandated by Consent Decree to treat stormwater to improve certain impairments that negatively impact the water quality of the State of Rhode Island,

WHEREAS the STATE and RISCC, have agreed that the installation of green infrastructure will benefit the water quality of the State of Rhode Island,

WHEREAS the STATE is committed to sustainability, reducing temperature impacts, increasing river buffers, and improving water quality,

WHEREAS the STATE, in cooperation with the RISCC, agree that a partnership approach to meet water quality and consent decree goals are mutually beneficial to both the STATE and the RISCC,

WHEREAS the RISCC have demonstrated experience and cost efficiency in the area of green infrastructure construction, education and maintenance,

WHEREAS the RISCC will investigate opportunities for green infrastructure on both public and private property,

NOW THEREFORE, in consideration of the foregoing premises and the mutual obligations contained herein, the STATE and the RISCC hereby agree as follows:

SECTION I - GENERAL PROVISIONS

1. The "Stormwater Improvement Program" (PROGRAM) will consist of multiple individual PROJECTS that are consistent with the goals of the STATE Office of Stormwater Management.

2. If the RISCC and the STATE agree that a site of interest has MERIT, the site of interest will be defined as a PROJECT (hereinafter called a "PROJECT"). A PROJECT that achieves MERIT under this PROGRAM may include some or all of the following activities; researching green infrastructure opportunities, obtaining or brokering easements, educating the public about green infrastructure, requesting and awarding bids for green infrastructure construction, constructing green infrastructure projects, grant management, managing payments, managing construction contracts, and stormwater maintenance.

3. The authorized start date of the PROGRAM under this agreement for RISCC to be eligible for reimbursement from the STATE, shall be the execution of this agreement. For this agreement:
    a. The total reimbursements are not to exceed $1,500,000.
    b. No PROJECT, under this agreement, shall be initiated after 5 years from the authorized start date of this AGREEMENT,
    c. The term of continuing reimbursements for any PROJECT shall not exceed 8 years from the authorized start date of this AGREEMENT.

4. A PROJECT is initiated when a site of interest, for the establishment of green infrastructure, located within the State of Rhode Island and has obtained MERIT (as determined by the STATE and defined in #5 below). The RISCC or the STATE may propose a site of interest to either party under this PROGRAM.

5. MERIT is achieved for each PROJECT upon the completion of a project Charter. The Project Charter, at a minimum, must include the following (see also Exhibit A):
    a. A cost benefit analysis, by the STATE that documents the benefits toward the Consent Decree against projected costs
    b. A list of stakeholders
    c. A PROJECT scope
    d. An estimated budget
    e. Proof of a "good faith effort" by the RISCC to find matching grant funds for each project
    f. A letter of cooperation from the owner of the site, if required
    g. A signature from the assigned financial administrator at the RISCC. Such administration shall include but not be limited to the maintenance of a PROJECT account, as well as processing invoices, change orders, and contract addenda. The RISCC contact person shall maintain all financial records for the project.
    h. A Funding Authorization Letter from the STATE to authorize a reimbursement budget for the RISCC.

SECTION II – PROJECT DESIGN PHASE FOR PROJECTS WITH MERIT

6. The STATE will be responsible for the design of the PROJECT and the development of a project plan for all PROJECTS initiated under this PROGRAM.

7. The STATE's Office of Stormwater Management will review all reimbursement requests for time and materials when submitted by the RISCC. The STATE's Office of Stormwater Management will review these requests for consistency with the approved Project Charter. An example of the reimbursement requests can be found in Exhibit B of this Agreement.

8. The RISCC be responsible for obtaining an appraisal of the PROJECT property by a qualified appraiser certified and licensed in the State of Rhode Island. The RISCC shall record and document all meetings with the property owner(s) to obtain easements or rights-of-way as may be necessary. Said documentation may be submitted to the STATE for review and approval.

9. During the design phase of the PROJECT, the STATE may terminate the PROJECT at any time, for any reason. If the STATE notifies the RISCC, in writing, that the PROJECT is terminated, no further reimbursements will be authorized other than those already incurred. (All costs incurred by the RISCC and any vendor engaged to perform services through the date of notification shall be paid). The RISCC must submit all invoices to RIDOT within 90 days of receipt of written notice from the STATE of a terminated project, in order to be eligible for reimbursement.

10. A written decision by the STATE to continue or terminate the project will be required at the 30% design stage. If RISCC and/or the Property Owner do not approve of the PROJECT, and negotiations become infeasible, the PROJECT may be terminated. The continuation to full design shall be formalized by:
    a. A memo from the RISCC stating the agreement with the 30% design plans of the PROJECT,
    b. A copy of a temporary easement from the Property Owner, private property easements or other right-of-way permissions, if an easement or ROW is necessary to both build and maintain the PROJECT,
    c. A revision of the budget and cost benefit analysis by the STATE,
    d. A memo signed by the STATE's Stormwater Administrator authorizing the continuation of the project, and
    e. A revised Funding Authorization Letter, if required.

11. The RISCC will respond with any review comments all documents generated by the STATE or the STATE's design engineer within twenty (20) calendar days of their receipt.

12. A completed design package shall include, at a minimum: site plans, advertising and bid documents, all required permits and any necessary easements.

SECTION III – ADVERTISE, AWARD, AND CONSTRUCTION PROVISIONS

13. The STATE will provide the RISCC with the design package for advertisement along with a revised, if necessary, copy of the STATE's Funding Authorization Letter. The RISCC agrees to advertise and award PROJECT for elements of the PROJECT that the RISCC does not want to complete with their existing resources. All advertising and awards shall be conducted in accordance with State Regulations and Rhode Island General Laws.

14. The RISCC may select a Contractor to construct a project as designed and in accordance with the bid specifications. The STATE must approve the RISCC selection prior to the RISCC entering into a contract with a selected contractor. The RISCC, through its Contractor, will construct the improvements in accordance with the Plans and Specifications for the PROJECT

15. The RISCC shall initially be responsible for payment of all costs associated with construction of a PROJECT, and the State will reimburse the RISCC for the costs of a PROJECT including, but not limited to acquisitions, construction, and maintenance, up to and not exceeding One and a Half Million Dollars ($1,500,000) for all PROJECTS approved under this Agreement.

16. The STATE acknowledges that the RISCC may seek third party financing with the STATE's Funding Authorization Letter for construction of the approved PROJECT(S), and such third parties will rely on the obligation of the STATE to make reimbursements to the RISCC as set forth in this AGREEMENT for the repayment obligation of the RISCC to the third party financing entity. The STATE further acknowledges that the RISCC may assign and pledge (i) its rights to reimbursements from the STATE under this AGREEMENT, and (ii) its other rights and remedies under this AGREEMENT, to a third party financing entity. The STATE agrees to indemnify and hold harmless the RISCC for actions or claims brought against the RISCC as a result of the STATE's failure to provide reimbursements or otherwise fail to meet its obligations in accordance with the terms of this AGREEMENT. The STATE will reimburse the RISCC for banking fees (subject to prior approval), as incurred from third party financing.

18. The STATE will conduct routine and final inspections of the PROJECT with the Contractor, the RISCC and the Property Owner to ensure the PROJECT was completed in conformance to the plans and specifications for the PROJECT.

19. The following are the General Program Requirements for the finalization, acceptance and closeout of each PROJECT. The State shall perform finalization and acceptance of the PROJECT. The following items are required to finalize and close the PROJECT.
    a. Final inspection report
    b. Corrective action plan(s) and punch list resolutions
    c. Letter of Project acceptance, as specified by standard STATE procedure, certifying that the PROJECT has been completed in accordance with the contract documents.

SECTION IV – OPERATIONS, MAINTENANCE, PUBLIC EDUCATION AND OUTREACH

20. After finalization, acceptance and closeout of the PROJECT is completed, the RISCC will maintain, and if deemed necessary by the STATE, reconstruct portions of the PROJECT, in accordance with the long-term RIDOT Operation and Maintenance Plan developed by the STATE. Amendments to the Operations and Maintenance Plan must be approved by the STATE.

21. The STATE may choose to maintain some of the green infrastructure as part of the PROJECT and as specified in the Operations and Maintenance Plan.

22. The RISCC shall record and document all maintenance and minor reconstruction of any PROJECT and submit the appropriate paperwork for reimbursement. The STATE will reimburse the RISCC for time and materials required to conduct operations and maintenance of any PROJECT constructed through this PROGRAM.

23. The RISCC may use this agreement to supplement costs for public education and outreach projects, such as educational tours of the stormwater treatment units. RISCC must obtain a funding authorization letter (Approval) from RIDOT prior to the initiation of an education or outreach PROJECT.

SECTION V – GENERAL PROGRAM REQUIREMENTS AND CONDITIONS

24. The following are the General Program Requirements for the submission of reimbursement requests by the RISCC:

    a. The RISCC shall invoice the State for work completed by its contractor (including RISCC construction staff) for the project. This includes, but is not limited to, labor and materials, canceled checks or other proof of payment.

    b. The RISCC shall submit reimbursement requests (in the form attached as Exhibit B) with a cover letter signed by the RISCC Director containing the following language and provisions:

       "I hereby certify that the materials and work for which payment is being requested meets the requirements of the contract documents and approved change orders in all respects, except as noted below. This certification is made in full cognizance of the Federal False Statements provision under United States Code, title 18, section 1020, and I am duly authorized to certify on behalf of the RISCC."

    c. The STATE agrees to review each reimbursement request within a reasonable time period, and if such request is in proper form, provide payment to the RISCC within 30 business days of approval of each reimbursement request. If further information is required by the STATE in connection with a reimbursement request, it shall provide to the RISCC within 10 business days a description of the information required to process the reimbursement request.

d. The RISCC shall indicate on each reimbursement request to the STATE, the third party financing agent, if one exists. If a third party finance agent exists, the STATE will send a copy of the reimbursement approval to the third party for payment by the third party. The STATE financial office will reimburse funds directly to the RISCC.

25. The RISCC shall also provide to the STATE and any other entity providing financing for PROJECTS constructed under this agreement, its annual audited financial statements within 3 months of the end of the RISCC fiscal year.

26. All costs billed under this Agreement are subject to audit. The RISCC agrees to retain and maintain all records of costs incurred for a period of five (5) years from the date of final payment and all other pending matters are closed.

27. To the extent applicable, in accordance with 2 CFR 200.501(a), the RISCC may be required to obtain a single audit from an independent auditor, if the RISCC expends $750,000 or more in total Federal funds in their fiscal year. If required, the RISCC must submit the federal form SF-SAC and a Single Audit Report Package within 9 months of the end of the RISCC fiscal year or 30 days after receiving the report from an independent auditor.

28. The STATE reserves the right to terminate this Agreement if the STATE funds are rescinded. The STATE will provide the RISCC with written notice of such termination, with as much advance notice as possible of any STATE or Federal action to rescind funs so that the RISCC can notify consultants and/or contractors to stop work in a timely manner. The RISCC shall be reimbursed by the STATE for all expenses incurred pursuant to the terms of this Agreement through the date of receipt of written notice by the STATE of termination of this Agreement or rescission of funds for a PROJECT(S), including any costs reasonably incurred by RISCC after the date of receipt of written notice by the STATE to cease work on the project in a commercially reasonable manner.

29. This Agreement may not be altered or amended except by written agreement signed by all the parties.

IN WITNESS WHEREOF, the STATE and the RISCC have caused this AGREEMENT to be executed by their duly authorized officials as of the 28th day of FEBRUARY, 2019.

Recommended for Approval:

Brian M. Moore, Stormwater Administrator, RIDOT — Date: 2-28-19

Robert Rocchio, Chief Engineer for Infrastructure, RIDOT — Date: 2/7/19

Dawn Cruz, Acting Chief Financial Officer, RIDOT — Date: 2/13/19

John Igliozzi, Assistant Director for Legal Services, RIDOT — Date: 2/12/19

Peter Alviti, Director, RIDOT — Date: 2/18/19

Maria Mack, Chair,
RI State Conservation Committee — Date: 1.31.19

Exhibits:
A - Sample Project Charter
B - Form of request for reimbursement documentation

ATTACHMENT 1H - Save The Bay Drain Marking Project

ROUTING SLIP

ACTION SLIP

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REFERRED TO: Robert Rocchio, Chief of Infrastructure	**DATE:** 06/30/2020

FROM: Brian Moore, Office of Stormwater Management Administrator
To release funds from PO #3613996 for Task #3- *(Save the Bay Storm Drain Marking Program Support)*

*** **PLEASE ROUTE AS SHOWN BELOW** ***

ROUTING FOR APPROVAL

R O U T I N G - F O R A P P R O V A L

	NAME	INITIALS	DATE	APPROVE	DISAPPROVE
1	Brian Moore, PE Administrator for Stormwater	BMM	7/1/20	✓	
For 2	Robert Rocchio, PE Chief of Infrastructure	RWR	7/2/20	✓	
3	Loren Doyle, Associate Dir., Division of Mgt. Serv.	LD	7/8/2020		
	Dawn Cruz	DC	7/10/2020	~	
	Return to: ~~Susan Votta, RIA~~ Finance ~~Environmental Division~~ ~~Office of Natural Resources~~				

RIDOT/RISCC Stormwater Partnership
Project Charter

General Project Information		
Project Name		**Project No.**
Save the Bay Storm Drain Marking Program Support		3613996
		Date Prepared
		June 10, 2020
Task Request $$	**Task**	**Task Order Detail**
$30,000	3 ☐Amendment	☒New
RIDOT Project Sponsor	**RIDOT Project Manager**	
Brian M. Moore, PE Stormwater Administrator	Susan Votta Project Manager	
RIDOT Project Sponsor	**RISCC Project Manager**	
Maria Mack RISCC Chair	Sara Churgin Director of Projects	
Team Members		
July Lewis, Volunteer Manager, Save the Bay		
Other Key Stakeholders		
Maureen Fogarty, Director of Operations, Save the Bay Stephany Hessler, Grants & Foundations Manager, Save the Bay		

Scope Statement

Business Need and Problem Statement

Stormwater runoff and stormwater pollution is one of the greatest threats to the health of Narragansett Bay. Illicit discharges, littering and dumping into storm drains across the State is a problem for RIDOT, especially in areas susceptible to beach and shellfish closures from stormwater pollution.

RIDOT must implement actions that support efforts to educate the public about general stormwater issues, including Illicit Discharge Detection and Elimination (IDDE) and allow for the public to participate in activities that support their stormwater goals. RIDOT has an agreement with the RISCC to find opportunities for outreach and education goals outlined in their RI Pollution Discharge Elimination System (RIPDES) MS4 Permit. RIDOT has found the RISCC to be a capable partner toward meeting these goals, working through the Eastern, Northern and Southern Conservation Districts. RIDOT proposes to partner with both RISCC and Save the Bay (STB) to support existing public stormwater education and participation efforts. (STB Proposal attached)

Save the Bay is a well-established local nonprofit organization dedicated to protecting and improving Narragansett Bay (Bay). STB currently coordinates a successful drain marking program that involves communities in stormwater education and has been in place since the mid-1990s. Supporting STB's Storm Drain Marking program directly relates to their objectives of improving watershed-wide management of pollluted runoff, reducing nutrient loads entering the Bay, reducing the annual number of beach closure days, and promoting the restoration of local waters. These objectives also align with RIDOT's MS4 and Consent Decree requirements.

RIDOT/RISCC Stormwater Partnership Project Charter

Project Goals and Objectives (Deliverables)

1. 2020 Program
   a. Collaborate with partners to obtain target locations — Feb 2020
   b. Purchase 200 drain markers — April 2020
   c. Install drain markers — Sept 2020
   d. Provide project report — Nov 2020
2. 2021 Program (includes subitems a-d)
3. 2022 Program (includes subitems a-d)
4. 2023 Program (includes subitems a-d)
5. 2024 Program (includes subitems a-d)

Benefits

Supporting the existing efficient Storm Drain Marking Program assists RIDOT in meeting Minimum Measures 1 & 2 of their RIPDES MS4 Permit, while benefiting the environment and educating the public.
Supporting stormwater control plans and locations where illicit discharges have been identified on RIDOT roadways.
Marking drains notifies the public that the storm drains empty into a local waterbody and do not get treated at a sewer treatment plant. We hope that this knowledge and accountability will reduce the amount of illicit discharges of pollutants that ultimately leads to beach and shellfishing closures.

Supporting an existing volunteer-based program also reduces the lag time to obtain results, reduces cost, and allows for public participation/community involvement in stormwater education.

Metrics

- Mark 200 drains each year in "hot spot" areas directed by RIDOT
- Report annually for 5 years

Supporting Budget Detail

Cost

A budget of $33,500 is allocated, however, the current estimated costs.

Items	Estimated Cost	Funding Agency	Account #
STB Purchase of Drain Markers	$25,000	RIDOT	PO# 3613996
STB Installation of Drain Markers	$3,500	Save the Bay	Volunteer Match
RISCC Project Management	$5,000	RIDOT	PO# 3613996

Funding Commitments by Agency

Agency	Amount	Account
RIDOT	$30,000	PO# 3613996
Save the Bay	$3,500	In-kind donations

Constraints/Assumptions

- The project continues to meet the framework for meeting MM1/MM2 of RIPDES MS4 Permit, outlined by RIDEM
- The project continues to be cost effective
- The RIDOT will continue to have a stormwater program that is adequately funded.

RIDOT/RISCC Stormwater Partnership Project Charter

Risks
• LOW- inflation and price of drain markings could increase • LOW- Save the Bay continues to implement their Drain Marking Program
Additional Information
Sponsor Responsibilities
• Provide funding on a timely basis • Clear the path for project execution by communicating with organization • Follow defined change control procedures
Program Manager Responsibilities
• Maintain communications with Save the Bay • Assist with obtaining volunteers for the program through publications • Request reimbursements in accordance with the agreement
RIDOT Project Manager Responsibilities
• Make sure that the project is adequately updated into the relevant Stormwater Control Plans and IDDE "hot spots" • Assure that the project stays on-scope and continues to be in the best and most cost-effective interest of the State • Approve reimbursements submitted by the RISCC
Links to Other Projects
This project is part of a comprehensive stormwater program and C & M agreement with the RI State Conservation Committee. This project is one aspect of RIDOT's work to meet Minimum Measure requirements within their RIPDES MS4 Permit.
We agree that this is a viable project, and we will support it.

Date: 6/19/20	Date: 6.16.20
Susan Votta, RIDOT PM	**Maria Mack, RISCC Chair**
Date: 6-23-20	Date: 6.17.20
Brian Moore, RIDOT Project Sponsor	**July Lewis, Save the Bay, Volunteer Coordinator**
	Date: 6.17.20
	Maureen Fogarty, Save the Bay, Director of Operations

SAVE THE BAY
NARRAGANSETT BAY

THE BAY CENTER
100 Save The Bay Drive
Providence, RI 02905
phone: 401-272-3540
fax: 401-273-7153
savebay@savebay.org
www.savebay.org

EXPLORATION CENTER
Easton's Beach
P.O. Box 851
Newport, RI 02840
phone: 401-324-6020
fax: 401-324-6022

SOUTH COAST CENTER
Riverside Building
8 Broad Street
Westerly, RI 02891
*phone/fax:*401.315.02891

Save The Bay invites the Rhode Island Department of Transportation's (RIDOT) Office of Stormwater Management to partner with us in discouraging and preventing illicit dumping into catch basins to help reduce stormwater pollution in communities throughout the Narragansett Bay Watershed through our Storm Drain Marking program.

Stormwater runoff and stormwater pollution is one of the greatest threats to the health of Narragansett Bay. Water from most storm drains flow directly in to our streams, rivers and the Bay. That means anything dumped into these drains – such as chemicals, motor oil, pet waste – pollutes the Bay. Discouraging and managing this runoff is crucial to keeping our waterways, and Narraganset Bay swimmable, fishable, healthy and accessible for everyone.

Save The Bay, is a leader in connecting residents of the Watershed with volunteer activities that directly impact the health of Narragansett Bay. One of our popular programs – the Storm Drain Marking program – engages volunteers (individuals, school groups, local businesses, community groups) in communities around the watershed marking storm drains with tags that say "Don't' Dump – Drains to Bay" to curbs above storm drains. Save The Bay has been managing the Storm Drain Marking program since the mid-1990s. Since that time, the program has evolved from utilizing spray painted stencils to UV protected tags adhered to curbing that can withstand freeze-thaw conditions without loss of adhesion for years.



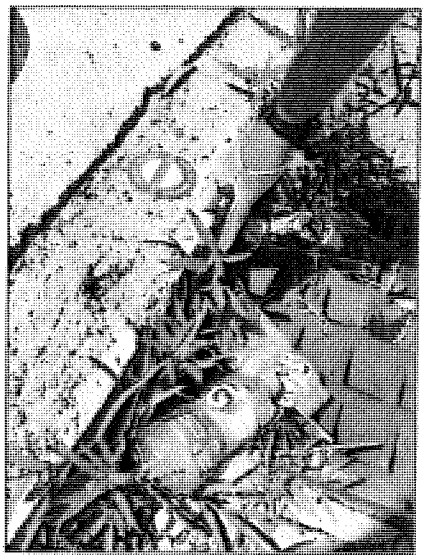
Over the years, Save The Bay has developed strong partnerships with local public works departments who help us identify areas that would be a good fit for storm drain markers. However, we do receive push back from some communities who do not want us placing tags on their curbing. Our hope is that with the partnership of Save The Bay and RIDOT, we will be able to gain the support of these less cooperative communities and start a strategic effort to activate volunteers and groups to mark storm drains in communities around the entire Watershed.

As part of the five-year partnership for $25,000 between Save The Bay and RIDOT for the Storm Drain Marking program, Save The Bay will:

- **Purchase** 200 storm drain marking tags and corresponding supplies each year.
- **Recruit** volunteers from communities, schools, businesses, and community groups.
- **Coordinate** projects with local DPWs and municipalities, including mapping storm drains.
- **Promote** the partnership and volunteer opportunities through various Save The Bay outlets, which could include:
  - → Save The Bay website
  - → Save The Bay blog posts
  - → Save The Bay's *Currents* email newsletters (30,000 subscribers)
  - → Save The Bay's *Volunteer News* email newsletters (4,000 subscribers)

- → Social media posts (20,000+ followers)
- → Save The Bay's *Tides* magazine (4,000 subscribers)
- → @RIDOTNews mentions across social media platforms

- **Train** storm drain marking volunteers to complete a successful event. STB staff/leadership will attend and support projects.
- **Report** back to RIDOT on annual project goals and outcomes.



Save The Bay will leverage DOT funding with that of other donors and grants. The total cost for Save The Bay to purchase supplies and successfully mark upwards of 200 or more storm drains each year throughout the Watershed, over five years, is **$25,000 ($5,000/year).**

Save The Bay is committed to carrying out activities that directly impact water quality in Narragansett Bay and the waters of the Watershed. The Storm Drain Marking program directly relates to our organizational objectives of improving watershed-wide management of polluted runoff, reducing, nutrient loads entering the Bay, reducing the annual number of beach closure days, and promoting the restoration of local waters.

Save The Bay is excited to launch this partnership with RIDOT to engage the public in protecting water quality in Narragansett Bay and the Watershed. We are appreciative of RIDOT reaching out to Save The Bay to partner on this project – capitalizing on what each of our organization's does best and using our communal resources to protect Narragansett Bay.

SAVE THE BAY®
NARRAGANSETT BAY

Storm Drain Marking Partnership
RI DOT Budget

SD Tags 200	$ 3.65	$ 1,460
SD Adhesive	$ 6.10	$ 244
Shipping	$10.74 / $100	$ 182
Staff 60 hours/year	$ 40.00	$ 2,400
Supplies (Trash bags, brochures, gloves, paper towel, etc)		$ 189
Travel VM for SDM Projects	$ 0.47	$ 70
Overhead 10%		$ 455
Cost per Year		$ 5,000

RIDOT/RISCC Stormwater Partnership Project Charter

GENERAL PROJECT INFORMATION		
Project Name		**PO No.**
Green Gateway to Downtown Westerly and Pawcatuck River		3613996
		Date Prepared
		12/20/2021
Task Request $$	**Task**	**Task Order Detail**
$25,000	5	☒New ☐Amendment
RIDOT Project Sponsor	**RIDOT Project Manager**	
Alisa Richardson, Acting Stormwater Administrator	Susan Votta, Supervising Landscape Architect, Environmental Division	
RIDOT Project Sponsor	**RISCC/SRICD Program Manager**	
Maria Mack RISCC Chair	Gina Fuller, District Manager, Southern Rhode Island Conservation District (SRICD)	
Team Members		
Nancy LeTendre, Town of Westerly Alyse Ozioler, Town of Westerly		
Other Key Stakeholders		
See Attached Letters of Support.		

RIDOT/RISCC Stormwater Partnership Project Charter

SCOPE STATEMENT

Business Need and Problem Statement

RIDOT must treat stormwater that flows into the Pawcatuck River. RIDOT has an agreement with the RISCC to find opportunities for stormwater treatment that move toward treatment goals outlined in their stormwater control plans. RIDOT has found the RISCC to be a capable partner toward meeting these goals, working through the Eastern, Northern and Southern Conservation Districts. This project will fall under the purview of the Southern RI Conservation District (SRICD).

The project will include design and installation of stormwater controls, outreach curriculum and related educational signage.

1) Potential project sites have already been identified along a stretch of Main Street in Westerly, which is currently almost entirely covered with impervious material. These include publicly-owned and privately-owned parcels. The projects will include stormwater infiltration STUs and water quality STUs. These improvements have been identified to specifically address water quality and improve street drainage.
2) A proposal for additional funding for the planning phase will be submitted to the Narragansett Bay Estuary Program which will enable the development of a detailed concept design. That planning project will include conceptual siting and design of the prioritized sites along the Main Street corridor.
3) Future phases of this project will consist of completing the design, permitting and construction of the planned stormwater infiltration STUs and water quality STUs that can be used as credits for the approved Stormwater Control Plan.

Project Goals and Objectives (Deliverables)

1.	Conceptual Design	August 2022
2.	Project Design & Permitting	Feb-Mar. 2023
3.	Construction Documents	May-July 2023
4.	Start Construction	June-Sept 2023
5.	Complete Construction Phase I	Sept.-Nov. 2023
6.	Begin Operations and Maintenance	Sept.- Nov. 2023

**Date ranges are given because the project will involve grouping 8 private parcels into 3 separate groupings and each grouping will follow a semi-independent schedule.*

Benefits

The treatment of stormwater counts towards RIDOT's Stormwater Control Plan, while benefiting the environment by reducing loadings and educating the public.

Metrics

- Provide credit for up to 3 acres of impervious cover for the Pawcatuck River.
- Cost/treatment acre is approximately $100,000/acre of treatment.

RIDOT/RISCC Stormwater Partnership
Project Charter

SUPPORTING BUDGET DETAIL

Cost

A budget of $25,000is allocated for the planning phase.

Phase	Estimated Cost	Funding Agency	Account #
Planning	$20,000	RIDOT	PO 3613996
SRICD Admin	$5,000	RIDOT	PO 3613996

Constraints/Assumptions

- The project continues to meet the framework for credits outlined by RIDEM and EPA.
- The project continues to be cost effective.
- RIDOT will continue to have a stormwater program that is adequately funded.

Risks

- Project is dependent on private property owners committing to the project as almost all work is proposed on private property, permanent drainage easements will be required to be established on private property.

ADDITIONAL INFORMATION

Sponsor Responsibilities

- Provide funding on a timely basis.
- Clear the path for project execution by communicating with organization.
- Follow defined change control procedures.

RISCC/SRICD Program Manager Responsibilities

- Maintain communications with project stakeholders.
- Design, permit, and construct improvements.
- Request reimbursements in accordance with the agreement.

RIDOT/RISCC Stormwater Partnership Project Charter

RIDOT Project Manager Responsibilities	
• Make sure that the project is adequately updated into VUEWorks and the relevant Stormwater Control Plans. • Assure that the project stays on-scope and continues to be in the best and most cost-effective interest of the State. • Approve reimbursements submitted by the SRICD.	
Links to Other Projects	
This project is part of implementing the Stormwater Control Plans for the Pawcatuck River.	
We agree that this is a viable project, and we will support it.	
Date: 12/20/2021	Date: 12-7-21
Sue Votta, RIDOT PM	Maria Mack, RISCC Chair
Date: 12/20/21	Date:
Alisa Richardson, RIDOT Project Sponsor	

RIDOT/RISCC Stormwater Partnership Project Charter

GENERAL PROJECT INFORMATION		
Project Name		**PO No.**
Truman Drive Green Infrastructure Parkway		3613996
		Date Prepared
		04/18/2022
Task Request	**Task**	**Task Order Detail**
$70,000	7	☒New ☐Amendment
RIDOT Project Sponsor	**RIDOT Project Manager**	
Alisa Richardson, Interim Stormwater Administrator	Susan Votta, Supervising Landscape Architect, Environmental Division	
RIDOT Project Sponsor	**RISCC/NRICD Program Manager**	
Maria Mack RISCC Chair	Gina DeMarco, District Manager, Northern Rhode Island Conservation District (NRICD)	
Team Members		
City of Woonsocket Planning Department, Kevin Proft, City Planner City of Woonsocket Engineering Department, Mike Debroisse, Superintendent of Eng. City of Woonsocket Public Works Department, Steve D'Agostino, DPW Director Rhode Island Department of Transportation, Lambri Zerva, PE, Project Manager II		
Other Key Stakeholders		
SNEP - Thomas Ardito		

RIDOT/RISCC Stormwater Partnership Project Charter

SCOPE STATEMENT

Business Need and Problem Statement

The goal of this project is to transform a 4-lane, underutilized public road, Truman Drive, to a 2-lane road and new linear park that incorporates the existing Blackstone River Bike Path, providing several co-benefits to the City's residents and businesses. This vision consists of removing 1.5 of the road's travel lanes, and parking along the road, and converting that unused paved surface into a linear park. These landscape elements would be used to treat stormwater while providing direct and indirect recreational, economic, and public health benefits to the City and Environmental Justice communities. The City has invested in a conceptual design for this project and is now advancing to the design and permitting stage.

RIDOT, via a consent decree with the USEPA, must treat stormwater that flows into the impaired Blackstone River. The impervious area from Truman Drive directly contributes stormwater to the Blackstone River via outfalls from closed conduit drainage systems. Impervious areas in the watershed on and upstream from Truman Drive can be disconnected from the existing discharges into the Blackstone River by diverting runoff into green infrastructure installations which will be developed in the green spaces that are planned to be developed in the Truman Drive ROW. The following design for opportunities for IC Reduction credit will be developed:

1) Removing impervious cover by reducing Truman Drive to two vehicle travel lanes and installing a greenway along the south side of the road.
2) Installing bioretention basins, to capture and treat sheet-flow from Truman Drive and adjacent impervious areas.
3) Further study to develop methods for connecting stormwater flow from the northern side of the existing road to the green infrastructure proposed in the greenway along the southern side of the road.
4) Further study the possibility of diverting stormwater from the Main Street closed conduit drainage system to the linear bioretention swales

Specific tasks for the Project Design and Permitting Phase include:

- **Preliminary Design- 30% Design:** Prepare schematic drawings of proposed design, incorporating public comments. Schematic drawings to include layout, grading, drainage, and planting. Visual graphics and renderings will be produced in this phase to aid in the public engagement process. This phase will also include assessing the potential for diverting stormwater from upgradient neighborhoods to proposed green infrastructure improvements. Expected water quality improvements will also be calculated to confirm that the goals of this grant will be met. This task will also include a workshop with City staff to engage DPW and other City departments who will eventually be responsible for maintenance and long-term success of these new assets, as well as preparation of opinions-of-construction cost.
  - *Deliverables: 30% Design Drawings, graphic renderings (plan view and 3d images), opinions of construction cost, estimates of pollutant removal effectiveness* (7 months)

- **Preliminary Design- 70% Design:** Prepare preliminary designs suitable for permitting of proposed design, incorporating City comments and comments from second public meeting. Schematic drawings to include layout, grading, drainage, and planting. Opinions of construction cost, estimates of pollutant removal effectiveness and visual graphics/renderings will be updated. This task will also include a workshop with City staff to engage DPW and other City departments who will be responsible for maintenance and long-term success.
  - *Deliverables: 70% Design Drawings and graphic renderings, opinions of construction cost, estimates of pollutant removal effectiveness (10 months)*
- **Prepare and Submit RIDEM Permit Application**: An application for wetlands permitting will need to be submitted to RIDEM which will also include stormwater permitting requirements. This task includes the preparation of a permit application and supporting that application through the permitting process.
  - *Deliverables: Completed RIDEM permit application and RIDEM issued wetlands authorization (Submit permit applications in 10 months, estimate securing permits in 14 months)*
- **Prepare final designs and specifications:** These documents will be suitable for public bidding and construction.

Project Goals and Objectives (Deliverables)

1. Conceptual Design	Complete
2. Project Design & Permitting	May 2023
3. Construction Documents	December 2023
4. Start Construction	April 2024
5. Complete Construction Phase I	October 2024
6. Begin Operations and Maintenance	November 2024

Benefits

The treatment of stormwater counts towards RIDOT's Stormwater Control Plan, while benefiting the environment by reducing loadings and offers an opportunity to create green spaces for public use, attract people to the downtown area, and better connect residents in Woonsocket to the bikeway and river.

Metrics

- Provide credit for up to 7.3 acres of impervious cover for the Blackstone River.
- Design cost/treatment acre is approximately $100,000/acre of treatment.

RIDOT/RISCC Stormwater Partnership Project Charter

SUPPORTING BUDGET DETAIL

Cost

A budget of $70,000 is allocated for the design development phase.

Phase	Estimated Cost	Funding Agency	Account #
NRICD Project Management	$6,500	RIDOT	PO# 3613996
RIIB 1.5% fee	$1,000	RIDOT	PO# 3613996
Design	$42,500	RIDOT	PO# 3613996
Permitting	$20,000	RIDOT	PO# 3613996
Construction	TBD	TBD	PO# TBD

Funding Commitments by Agency

Agency	Amount	Account
SNEP Watershed Grant	$187,500	PO# TBD
TBD	TBD	PO# TBD
RIDOT	$70,000	PO# 3613996

Constraints/Assumptions

- The project continues to meet the framework for credits outlined by RIDEM and EPA.
- The project continues to be cost effective.
- RIDOT will continue to have a stormwater program that is adequately funded.

Risks

-

ADDITIONAL INFORMATION

Sponsor Responsibilities

- Provide funding on a timely basis.
- Clear the path for project execution by communicating with organization.
- Follow defined change control procedures.

RISCC/SRICD Program Manager Responsibilities

- Maintain communications with project stakeholders.
- Design, permit, and construct improvements.
- Request reimbursements in accordance with the agreement.

RIDOT Project Manager Responsibilities

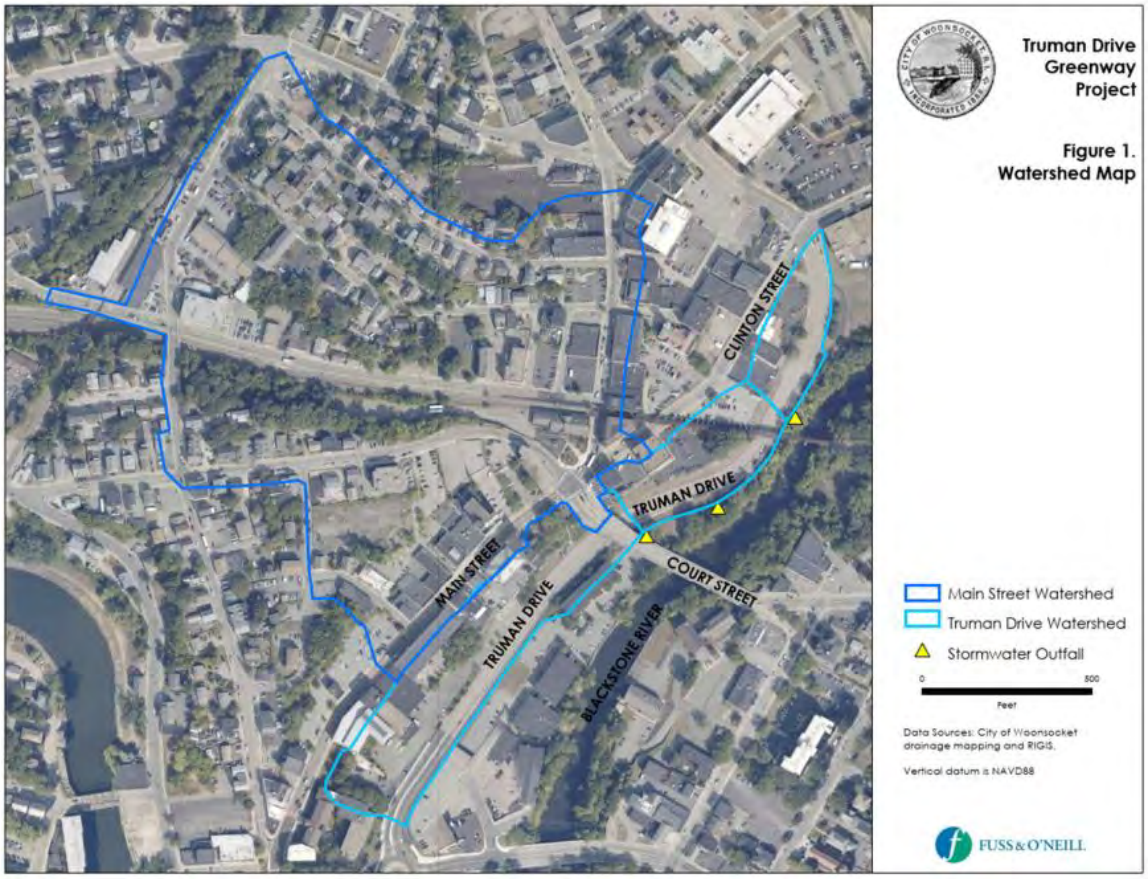
- Make sure that the project is adequately updated into VUEWorks and the relevant Stormwater Control Plans.
- Assure that the project stays on-scope and continues to be in the best and most cost-effective interest of the State.
- Approve reimbursements submitted by the NRICD.

RIDOT/RISCC Stormwater Partnership Project Charter

Links to Other Projects	
This project is part of implementing the Stormwater Control Plans for the Blackstone River.	
We agree that this is a viable project, and we will support it.	
Date: 4-21-22	Date: 4.19.22
Susan Votta, RIDOT PM	**Maria Mack, RISCC Chair**
Date: 4-21-22	Date:
Alisa Richardson, RIDOT Project Sponsor	

RIDOT/RISCC Stormwater Partnership
Project Charter

Project Area: Truman Drive and associated watershed, Woonsocket, RI



RIDOT/RISCC Stormwater Partnership Project Charter

GENERAL PROJECT INFORMATION		
Project Name		**Project No.**
Old Tower Hill Road, Wakefield Stormwater Retrofit – Restore and Maintain		3613996-6
		Date Prepared
		May 19, 2023
Task Request $$	**Task**	**Task Order Detail**
$146,836	6	☒New ☐Amendment
RIDOT Project Sponsor	**RIDOT Project Manager**	
Alisa Diaz Richardson, MS, PE, PMP Stormwater Administrator, Acting	Jennifer Ryan Project Manager	
RISCC Project Sponsor	**RISCC Project Manager**	
Maria Mack RISCC Chair	Sara Churgin Director of Projects	
Team Members		
Trevor Jones, RIDOT Senior Landscape Architech, Environmnetal Division Susan Votta, RIDOT Supervising Landscape Architech, Environmental Division Steven A. Ricci, Director of Field Operations, Groundwork Rhode Island Sara Churgin, RI State Conservation Commission		
Other Key Stakeholders		
Matthew Ouellette, RIDOT State Highway Maintenance Operations Engineer James Manni, Town Manager, Town of South Kingstown		

SCOPE STATEMENT

Business Need and Problem Statement

RIDOT must treat stormwater that flows into Saugatucket River from Old Tower Hill Road in Wakefield (a State Road). RIDOT has an agreement with the Rhode Island State Conservation Commission (RISCC) to find opportunities for stormwater treatment that move toward treatment goals outlined in their stormwater control plans. RIDOT has found the RISCC to be a capable partner toward meeting these goals.

In Fall of 2020, RIDOT completed construction of roadway and pedestrian safety improvements along Old Tower Hill Road between Kingstown Road (Route 1A) and Tower Hill Road (Route 1) in Wakefield (PTSID 0055L; Construction RIC 2019-CH-083) which reduced the overall impervious area and incorporated green infrastructure into the design by installing on-site stormwater treatment systems in the form of bio-retention basins built into the sidewalk designs to reduce stormwater pollution. The existing maintenance contract for this "Stormy Award" winning project is due to expire June 30, 2023; and the stormwater treatment system areas needs repair.

This new retrofit project will restore all functionality to all existing bioswales on site and includes a refurbished planting design and installation for bioswale and sidewalk planters; plant and construction materials; and two additional years of monthly maintenance. Upon completion of the 2-year maintenance agreement contract period on June 30, 2025, RIDOT's State Highway Maintenance Operations team will be responsible for long term regular maintenance.

RIDOT/RISCC Stormwater Partnership Project Charter

Project Goals and Objectives (Deliverables)

1.	Planting Design	May -Jun 2023
2.	Construction	Jul – Aug 2023
3.	Two (2) Year Maintenance	Jul 2023- Jul 2025

Benefits

The treatment of stormwater counts towards RIDOT's Stormwater Control Plan, while benefiting the environment. Stormwater treatment is designed to have a co-benefit to the local businesses and community. Rather than designating an alternative area for stormwater treatment, this project will treat stormwater and beautify the area at the same time.

Metrics

- Capture and treat 0.75 acres stormwater water toward the stormwater treatment goal for the Stormwater Control Plan
- Cost/treatment acre under $200,000/acre of treatment

SUPPORTING BUDGET DETAIL

Cost

A budget of $146,836 is allocated.

Phase	Estimated Cost	Funding Agency	Account #
Construction	$77,236.00	RIDOT	PO# 3613996
Maintenance (2 yrs)	$64,600.00	RIDOT	PO# 3613996
Project Management	$5,000.00	RIDOT	PO# 3613996

Funding Commitments by Agency

Agency	Amount	Account
RIDOT	$146,836.00	PO# 3613996

Constraints/Assumptions

- The project continues to meet the framework for credits outlined by RIDEM and EPA
- The project continues to be cost effective
- RISCC and Groundwork Rhode Island will maintain the stormwater treatment system for the first 2 years to establish growth, at which time RIDOT Highway and Maintenance Operation team will take over long-term maintenance.
- The RIDOT will continue to have a stormwater program that is adequately funded.

Risks

- LOW-Stormwater treatment will be less effective without proper, regularly scheduled maintenance.

ADDITIONAL INFORMATION

Sponsor Responsibilities

- Provide funding on a timely basis
- Clear the path for project execution by communicating with organization
- Follow defined change control procedures

RIDOT/RISCC Stormwater Partnership
Project Charter

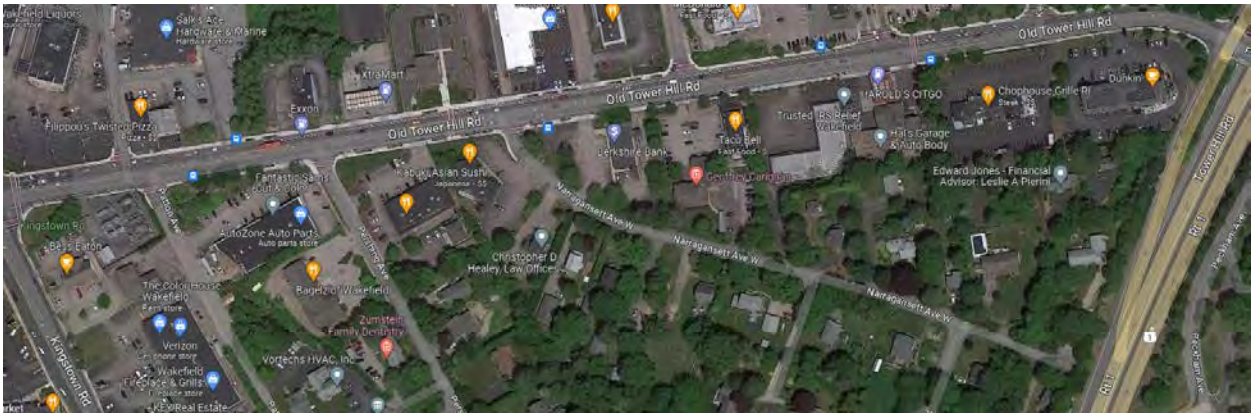
Program Manager Responsibilities	
• Maintain communications with GROUNDWORK RI • Request reimbursements in accordance with the agreement	
RIDOT Project Manager Responsibilities	
• Make sure that the project is adequately updated into VUEWorks and the relevant Stormwater Control Plans • Assure that the project stays on-scope and continues to be in the best and most cost-effective interest of the State • Approve reimbursements submitted by the RISCC	
Links to Other Projects	
This project is part of a comprehensive stormwater program and C & M agreement with the RI State Conservation Committee for 2 years.	
We agree that this is a viable project, and we will support it.	
Jennifer Ryan Digitally signed by Jennifer Ryan Date: 2023.05.23 08:53:43 -04'00' Date: 05/23/23	DocuSigned by: maria mack 00D8789DADB04FA... Date: 6/2/2023
Jennifer Ryan, RIDOT PM	**Maria Mack,** RISCC Chair
Date: 05/23/23	Matthew J Ouellette Digitally signed by Matthew J Ouellette Date: 2023.06.06 13:32:02 -04'00' Date:
Alisa Diaz Richardson, RIDOT Project Sponsor	**Matthew Ouellette,** RIDOT Maintenance

RIDOT/RISCC Stormwater Partnership
Project Charter

Project Area: Old Tower Hill Road, Wakefield, RI



Original Project Limits: Between Kingstown Road and Tower Hill Road



Bio boxes in 2020:





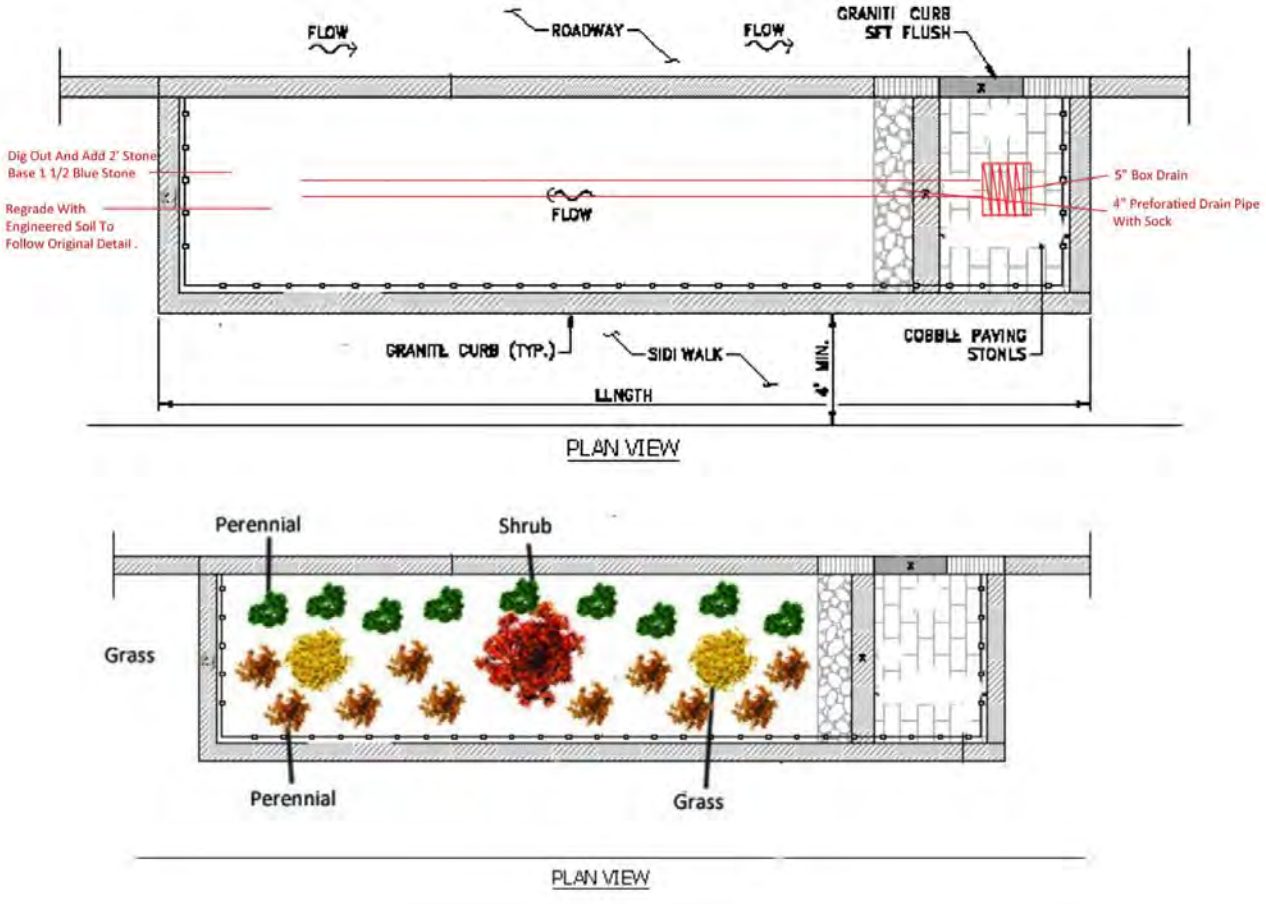
Groundwork Rhode Island
Proposed Plant List
Old Tower Road Project

Shrub:
Shamrock Holly Ilex Glabra
Red Twig Dogwood Ivory Halo Cronus alba 'Bailhalo'
Dwarf Winter Berry Ilex verticillata Red Goblin

Perennial:
White Turtle Head Chelone glabra
Pink Tick Seed Coreopsis rosea
Joe Pye Weed Eutrochium maculatum var. maculatum
Cardinal Flower Lobelia cardinalis var. cardinalis
Beard Tongue Penstemon hirsutus
New England Aster Symphyotrichum (Aster) novae-angliae
Black Eyed Susan Rudbeckia hirta
Cone Flower Echinacea spp.

Grasses:
Hamlen Grass Pennisetum alopecuroides 'Hameln' (Fountain Grass)
Little Blue Stem Grass Schizachyrium scoparium

Groundwork RI Proposed Detail and Planting Design:



STORMWATER IMPROVEMENT PARTNERSHIP
CONSTRUCTION & MAINTENANCE AGREEMENT
PRIVATE PROPERTY AND
STATE FUNDS

by and between the

STATE OF RHODE ISLAND

and the

SOUTHERN RHODE ISLAND CONSERVATION DISTRICT

This AGREEMENT is entered into by and between the STATE OF RHODE ISLAND, through its Department of Transportation (hereinafter called the STATE), and the SOUTHERN RHODE ISLAND CONSERVATION DISTRICT (hereinafter called the SRICD) to scope, design, construct, operate and maintain green infrastructure stormwater treatment.

WHEREAS the STATE is mandated by Consent Decree to treat stormwater to improve certain impairments that negatively impact the water quality of the State of Rhode Island,

WHEREAS the SRICD was established by RIGL 2-4-7 to serve all of Washington and Kent Counties,

WHEREAS the SRICD are empowered by RIGL 2-4-12-5 to cooperate, or enter into agreements with any agency, governmental or otherwise, or any occupier of lands within the district, in carrying on of preventive and control measures and works of improvement for the conservation of renewable natural resources within the district,

WHEREAS the STATE and SRICD, have agreed that the installation of green infrastructure will benefit the water quality of the State of Rhode Island,

WHEREAS the STATE is committed to sustainability, reducing temperature impacts, increasing river buffers, and improving water quality,

WHEREAS the STATE, in cooperation with the SRICD, agree that a partnership approach to meet water quality and consent decree goals are mutually beneficial to both the STATE and the SRICD,

WHEREAS the SRICD have demonstrated experience and cost efficiency in the area of green infrastructure construction, education and maintenance,

WHEREAS the SRICD will investigate opportunities for green infrastructure on both public and private property,

NOW THEREFORE, in consideration of the foregoing premises and the mutual obligations contained herein, the STATE and the SRICD hereby agree as follows:

SECTION I - GENERAL PROVISIONS

1. The "Stormwater Improvement Program" (PROGRAM) will consist of multiple individual PROJECTS that are consistent with the goals of the STATE Office of Stormwater Management.

2. If the SRICD and the STATE agree that a site of interest has MERIT, the site of interest will be defined as a PROJECT (hereinafter called a "PROJECT"). A PROJECT that achieves MERIT under this PROGRAM may include some or all of the following activities; researching green infrastructure opportunities, obtaining or brokering easements, educating the public about green infrastructure, requesting and awarding bids for green infrastructure construction, constructing green infrastructure projects, grant management, managing payments, managing construction contracts, and stormwater maintenance.

3. The authorized start date of the PROGRAM under this agreement for SRICD to be eligible for reimbursement from the STATE, shall be the execution of this agreement. For this agreement:
    a. The total reimbursements are not to exceed $1,500,000.
    b. No PROJECT, under this agreement, shall be initiated after 5 years from the authorized start date of this AGREEMENT,
    c. The term of continuing reimbursements for any PROJECT shall not exceed 8 years from the authorized start date of this AGREEMENT.

4. A PROJECT is initiated when a site of interest, for the establishment of green infrastructure, located within the State of Rhode Island and has obtained MERIT (as determined by the STATE and defined in #5 below). The SRICD or the STATE may propose a site of interest to either party under this PROGRAM.

5. MERIT is achieved for each PROJECT upon the completion of a project Charter. The Project Charter, at a minimum, must include the following (see also Exhibit A):
    a. A cost benefit analysis, by the STATE that documents the benefits toward the Consent Decree against projected costs,
    b. A list of stakeholders,
    c. A PROJECT scope,
    d. An estimated budget,
    e. Proof of a "good faith effort" by the SRICD to find matching grant funds for each project,
    f. A letter of cooperation from the owner of the site, if required,
    g. A signature from the assigned financial administrator at the SRICD. Such administration shall include but not be limited to the maintenance of a PROJECT account, as well as processing invoices, change orders, and contract addenda. The SRICD contact person shall maintain all financial records for the project,
    h. A Funding Authorization Letter from the STATE to authorize a reimbursement budget for the SRICD.

SECTION II – PROJECT DESIGN PHASE FOR PROJECTS WITH MERIT

6. The STATE will be responsible for the design of the PROJECT and the development of a project plan for all PROJECTS initiated under this PROGRAM.

7. The STATE's Office of Stormwater Management will review all reimbursement requests for time and materials when submitted by the SRICD. The STATE's Office of Stormwater Management will review these requests for consistency with the approved Project Charter. An example of the reimbursement requests can be found in Exhibit B of this Agreement.

8. The SRICD be responsible for obtaining an appraisal of the PROJECT property by a qualified appraiser certified and licensed in the State of Rhode Island. The SRICD shall record and document all meetings with the property owner(s) to obtain easements or rights-of-way as may be necessary. Said documentation may be submitted to the STATE for review and approval.

9. During the design phase of the PROJECT, the STATE may terminate the PROJECT at any time, for any reason. If the STATE notifies the SRICD, in writing, that the PROJECT is terminated, no further reimbursements will be authorized other than those already incurred. (All costs incurred by the SRICD and any vendor engaged to perform services through the date of notification shall be paid). The SRICD must submit all invoices to RIDOT within 90 days of receipt of written notice from the STATE of a terminated project, in order to be eligible for reimbursement.

10. A written decision by the STATE to continue or terminate the project will be required at the 30% design stage. If SRICD and/or the Property Owner do not approve of the PROJECT, and negotiations become infeasible, the PROJECT may be terminated. The continuation to full design shall be formalized by:
    a. A memo from the SRICD stating the agreement with the 30% design plans of the PROJECT,
    b. A copy of a temporary easement from the Property Owner, private property easements or other right-of-way permissions, if an easement or ROW is necessary to both build and maintain the PROJECT,
    c. A revision of the budget and cost benefit analysis by the STATE,
    d. A memo signed by the STATE's Stormwater Administrator authorizing the continuation of the project, and
    e. A revised Funding Authorization Letter, if required.

11. The SRICD will respond with any review comments all documents generated by the STATE or the STATE's design engineer within twenty (20) calendar days of their receipt.

12. A completed design package shall include, at a minimum: site plans, advertising and bid documents, all required permits and any necessary easements.

SECTION III – ADVERTISE, AWARD, AND CONSTRUCTION PROVISIONS

13. The STATE will provide the SRICD with the design package for advertisement along with a revised, if necessary, copy of the STATE's Funding Authorization Letter. The SRICD agrees to advertise and award PROJECT for elements of the PROJECT that the SRICD does not want to complete with their existing resources. All advertising and awards shall be conducted in accordance with State Regulations and Rhode Island General Laws.

14. The SRICD may select a Contractor to construct a project as designed and in accordance with the bid specifications. The STATE must approve the SRICD selection prior to the SRICD entering into a contract with a selected contractor. The SRICD, through its Contractor, will construct the improvements in accordance with the Plans and Specifications for the PROJECT

15. The SRICD shall initially be responsible for payment of all costs associated with construction of a PROJECT, and the State will reimburse the SRICD for the costs of a PROJECT including, but not limited to acquisitions, construction, and maintenance, up to and not exceeding One and a Half Million Dollars ($1,500,000) for all PROJECTS approved under this Agreement.

16. The STATE acknowledges that the SRICD may seek third party financing with the STATE's Funding Authorization Letter for construction of the approved PROJECT(S), and such third parties will rely on the obligation of the STATE to make reimbursements to the SRICD as set forth in this AGREEMENT for the repayment obligation of the SRICD to the third party financing entity. The STATE further acknowledges that the SRICD may assign and pledge (i) its rights to reimbursements from the STATE under this AGREEMENT, and (ii) its other rights and remedies under this AGREEMENT, to a third party financing entity. The STATE agrees to indemnify and hold harmless the SRICD for actions or claims brought against the SRICD as a result of the STATE's failure to provide reimbursements or otherwise fail to meet its obligations in accordance with the terms of this AGREEMENT. The STATE will reimburse the SRICD for banking fees (subject to prior approval), as incurred from third party financing.

18. The STATE will conduct routine and final inspections of the PROJECT with the Contractor, the SRICD and the Property Owner to ensure the PROJECT was completed in conformance to the plans and specifications for the PROJECT.

19. The following are the General Program Requirements for the finalization, acceptance and closeout of each PROJECT. The State shall perform finalization and acceptance of the PROJECT. The following items are required to finalize and close the PROJECT.
    a. Final inspection report,
    b. Corrective action plan(s) and punch list resolutions,
    c. Letter of Project acceptance, as specified by standard STATE procedure, certifying that the PROJECT has been completed in accordance with the contract documents.

SECTION IV – OPERATIONS, MAINTENANCE, PUBLIC EDUCATION AND OUTREACH

20. After finalization, acceptance and closeout of the PROJECT is completed, the SRICD will maintain, and if deemed necessary by the STATE, reconstruct portions of the PROJECT, in accordance with the long-term RIDOT Operation and Maintenance Plan developed by the STATE. Amendments to the Operations and Maintenance Plan must be approved by the STATE.

21. The STATE may choose to maintain some of the green infrastructure as part of the PROJECT and as specified in the Operations and Maintenance Plan.

22. The SRICD shall record and document all maintenance and minor reconstruction of any PROJECT and submit the appropriate paperwork for reimbursement. The STATE will reimburse the SRICD for time and materials required to conduct operations and maintenance of any PROJECT constructed through this PROGRAM.

23. The SRICD may use this agreement to supplement costs for public education and outreach projects, such as educational tours of the stormwater treatment units. SRICD must obtain a funding authorization letter (Approval) from RIDOT prior to the initiation of an education or outreach PROJECT.

SECTION V – GENERAL PROGRAM REQUIREMENTS AND CONDITIONS

24. The following are the General Program Requirements for the submission of reimbursement requests by the SRICD:

    a. The SRICD shall invoice the State for work completed by its contractor (including SRICD construction staff) for the project. This includes, but is not limited to, labor and materials, canceled checks or other proof of payment.

    b. The SRICD shall submit reimbursement requests (in the form attached as Exhibit B) with a cover letter signed by the SRICD Director containing the following language and provisions:

       "I hereby certify that the materials and work for which payment is being requested meets the requirements of the contract documents and approved change orders in all respects, except as noted below. This certification is made in full cognizance of the Federal False Statements provision under United States Code, title 18, section 1020, and I am duly authorized to certify on behalf of the SRICD."

    c. The STATE agrees to review each reimbursement request within a reasonable time period, and if such request is in proper form, provide payment to the SRICD within 30 business days of approval of each reimbursement request. If further information is required by the STATE in connection with a reimbursement request, it shall provide to the SRICD within 10 business days a description of the information required to process the reimbursement request.

d. The SRICD shall indicate on each reimbursement request to the STATE, the third party financing agent, if one exists. If a third party finance agent exists, the STATE will send a copy of the reimbursement approval to the third party for payment by the third party. The STATE financial office will reimburse funds directly to the SRICD

25. The SRICD shall also provide to the STATE and any other entity providing financing for PROJECTS constructed under this agreement, its annual audited financial statements within 3 months of the end of the SRICD fiscal year.

26. All costs billed under this Agreement are subject to audit. The SRICD agrees to retain and maintain all records of costs incurred for a period of five (5) years from the date of final payment and all other pending matters are closed.

27. To the extent applicable, in accordance with 2 CFR 200.501(a), the SRICD may be required to obtain a single audit from an independent auditor, if the SRICD expends $750,000 or more in total Federal funds in their fiscal year. If required, the SRICD must submit the federal form SF-SAC and a Single Audit Report Package within 9 months of the end of the SRICD fiscal year or 30 days after receiving the report from an independent auditor.

28. The STATE reserves the right to terminate this Agreement if the STATE funds are rescinded. The STATE will provide the SRICD with written notice of such termination, with as much advance notice as possible of any STATE or Federal action to rescind funs so that the SRICD can notify consultants and/or contractors to stop work in a timely manner. The SRICD shall be reimbursed by the STATE for all expenses incurred pursuant to the terms of this Agreement through the date of receipt of written notice by the STATE of termination of this Agreement or rescission of funds for a PROJECT(S), including any costs reasonably incurred by SRICD after the date of receipt of written notice by the STATE to cease work on the project in a commercially reasonable manner.

29. This Agreement may not be altered or amended except by written agreement signed by all the parties.

IN WITNESS WHEREOF, the STATE and the SRICD have caused this AGREEMENT to be executed by their duly authorized officials as of the _____ day of _____, 2023.

Recommended for Approval:

Alisa Diaz Richardson, Acting Administrator for Stormwater, RIDOT — Date: 7/27/23

Robert Rocchio, Chief Engineer for Infrastructure, RIDOT — Date: 8/1/23

Loren Doyle, Chief Financial Officer, RIDOT — Date: 8/16/23

John Igliozzi, Chief of Staff/Assistant Director for Legal Services, RIDOT — Date: 8/10/23

Peter Alviti, Director, RIDOT — Date: 8/20/23

Gina T. Fuller, District Manager
Southern Rhode Island Conservation District — Date: 07/26/2023

Exhibits:
A - Sample Project Charter
B – Sample form of request for reimbursement documentation

RIDOT/RISCC Stormwater Partnership Project Charter

General Project Information

Project Name		Project No.
Save the Bay Storm Drain Marking Program Support		3613996
		Date Prepared
		June 10, 2020
Task Request $$	**Task**	**Task Order Detail**
$30,000	3 ☐Amendment	☒New
RIDOT Project Sponsor	**RIDOT Project Manager**	
Brian M. Moore, PE Stormwater Administrator	Susan Votta Project Manager	
RIDOT Project Sponsor	**RISCC Project Manager**	
Maria Mack RISCC Chair	Sara Churgin Director of Projects	
Team Members		
July Lewis, Volunteer Manager, Save the Bay		
Other Key Stakeholders		
Maureen Fogarty, Director of Operations, Save the Bay Stephany Hessler, Grants & Foundations Manager, Save the Bay		

Scope Statement

Business Need and Problem Statement

Stormwater runoff and stormwater pollution is one of the greatest threats to the health of Narragansett Bay. Illicit discharges, littering and dumping into storm drains across the State is a problem for RIDOT, especially in areas susceptible to beach and shellfish closures from stormwater pollution.

RIDOT must implement actions that support efforts to educate the public about general stormwater issues, including Illicit Discharge Detection and Elimination (IDDE) and allow for the public to participate in activities that support their stormwater goals. RIDOT has an agreement with the RISCC to find opportunities for outreach and education goals outlined in their RI Pollution Discharge Elimination System (RIPDES) MS4 Permit. RIDOT has found the RISCC to be a capable partner toward meeting these goals, working through the Eastern, Northern and Southern Conservation Districts. RIDOT proposes to partner with both RISCC and Save the Bay (STB) to support existing public stormwater education and participation efforts. (STB Proposal attached)

Save the Bay is a well-established local nonprofit organization dedicated to protecting and improving Narragansett Bay (Bay). STB currently coordinates a successful drain marking program that involves communities in stormwater education and has been in place since the mid-1990s. Supporting STB's Storm Drain Marking program directly relates to their objectives of improving watershed-wide management of pollluted runoff, reducing nutrient loads entering the Bay, reducing the annual number of beach closure days, and promoting the restoration of local waters. These objectives also align with RIDOT's MS4 and Consent Decree requirements.

RIDOT/RISCC Stormwater Partnership
Project Charter

Project Goals and Objectives (Deliverables)

1. 2020 Program
   a. Collaborate with partners to obtain target locations — Feb 2020
   b. Purchase 200 drain markers — April 2020
   c. Install drain markers — Sept 2020
   d. Provide project report — Nov 2020
2. 2021 Program (includes subitems a-d)
3. 2022 Program (includes subitems a-d)
4. 2023 Program (includes subitems a-d)
5. 2024 Program (includes subitems a-d)

Benefits

Supporting the existing efficient Storm Drain Marking Program assists RIDOT in meeting Minimum Measures 1 & 2 of their RIPDES MS4 Permit, while benefiting the environment and educating the public.
Supporting stormwater control plans and locations where illicit discharges have been identified on RIDOT roadways.
Marking drains notifies the public that the storm drains empty into a local waterbody and do not get treated at a sewer treatment plant. We hope that this knowledge and accountability will reduce the amount of illicit discharges of pollutants that ultimately leads to beach and shellfishing closures.

Supporting an existing volunteer-based program also reduces the lag time to obtain results, reduces cost, and allows for public participation/community involvement in stormwater education.

Metrics

- Mark 200 drains each year in "hot spot" areas directed by RIDOT
- Report annually for 5 years

SUPPORTING BUDGET DETAIL

Cost

A budget of $33,500 is allocated, however, the current estimated costs.

Items	Estimated Cost	Funding Agency	Account #
STB Purchase of Drain Markers	$25,000	RIDOT	PO# 3613996
STB Installation of Drain Markers	$3,500	Save the Bay	Volunteer Match
RISCC Project Management	$5,000	RIDOT	PO# 3613996

Funding Commitments by Agency

Agency	Amount	Account
RIDOT	$30,000	PO# 3613996
Save the Bay	$3,500	In-kind donations

Constraints/Assumptions

- The project continues to meet the framework for meeting MM1/MM2 of RIPDES MS4 Permit, outlined by RIDEM
- The project continues to be cost effective
- The RIDOT will continue to have a stormwater program that is adequately funded.

RIDOT/RISCC Stormwater Partnership Project Charter

Risks
• LOW- inflation and price of drain markings could increase • LOW- Save the Bay continues to implement their Drain Marking Program
ADDITIONAL INFORMATION
Sponsor Responsibilities
• Provide funding on a timely basis • Clear the path for project execution by communicating with organization • Follow defined change control procedures
Program Manager Responsibilities
• Maintain communications with Save the Bay • Assist with obtaining volunteers for the program through publications • Request reimbursements in accordance with the agreement
RIDOT Project Manager Responsibilities
• Make sure that the project is adequately updated into the relevant Stormwater Control Plans and IDDE "hot spots" • Assure that the project stays on-scope and continues to be in the best and most cost-effective interest of the State • Approve reimbursements submitted by the RISCC
Links to Other Projects
This project is part of a comprehensive stormwater program and C & M agreement with the RI State Conservation Committee. This project is one aspect of RIDOT's work to meet Minimum Measure requirements within their RIPDES MS4 Permit.
We agree that this is a viable project, and we will support it.

Date: 6/19/20	Date: 6-16-20
Susan Vetter, RIDOT PM	**Maria Mack, RISCC Chair**
Date: 6-23-20	Date: 6.17.20
Brian Moore, RIDOT Project Sponsor	**July Lewis, Save the Bay, Volunteer Coordinator**
	Date: 6.17.20
	Maureen Fogarty, Save the Bay, Director of Operations

SAVE THE BAY
NARRAGANSETT BAY

THE BAY CENTER
100 Save The Bay Drive
Providence, RI 02905
phone: 401-272-3540
fax: 401-273-7153
savebay@savebay.org
www.savebay.org

EXPLORATION CENTER
Easton's Beach
P.O. Box 851
Newport, RI 02840
phone: 401-324-6020
fax: 401-324-6022

SOUTH COAST CENTER
Riverside Building
8 Broad Street
Westerly, RI 02891
*phone/fax:*401.315.02891

Save The Bay invites the Rhode Island Department of Transportation's (RIDOT) Office of Stormwater Management to partner with us in discouraging and preventing illicit dumping into catch basins to help reduce stormwater pollution in communities throughout the Narragansett Bay Watershed through our Storm Drain Marking program.

Stormwater runoff and stormwater pollution is one of the greatest threats to the health of Narragansett Bay. Water from most storm drains flow directly in to our streams, rivers and the Bay. That means anything dumped into these drains – such as chemicals, motor oil, pet waste – pollutes the Bay. Discouraging and managing this runoff is crucial to keeping our waterways, and Narraganset Bay swimmable, fishable, healthy and accessible for everyone.

Save The Bay, is a leader in connecting residents of the Watershed with volunteer activities that directly impact the health of Narragansett Bay. One of our popular programs – the Storm Drain Marking program – engages volunteers (individuals, school groups, local businesses, community groups) in communities around the watershed marking storm drains with tags that say "Don't' Dump – Drains to Bay" to curbs above storm drains. Save The Bay has been managing the Storm Drain Marking program since the mid-1990s. Since that time, the program has evolved from utilizing spray painted stencils to UV protected tags adhered to curbing that can withstand freeze-thaw conditions without loss of adhesion for years.



Over the years, Save The Bay has developed strong partnerships with local public works departments who help us identify areas that would be a good fit for storm drain markers. However, we do receive push back from some communities who do not want us placing tags on their curbing. Our hope is that with the partnership of Save The Bay and RIDOT, we will be able to gain the support of these less cooperative communities and start a strategic effort to activate volunteers and groups to mark storm drains in communities around the entire Watershed.

As part of the five-year partnership for $25,000 between Save The Bay and RIDOT for the Storm Drain Marking program, Save The Bay will:

- **Purchase** 200 storm drain marking tags and corresponding supplies each year.
- **Recruit** volunteers from communities, schools, businesses, and community groups.
- **Coordinate** projects with local DPWs and municipalities, including mapping storm drains.
- **Promote** the partnership and volunteer opportunities through various Save The Bay outlets, which could include:
  - → Save The Bay website
  - → Save The Bay blog posts
  - → Save The Bay's *Currents* email newsletters (30,000 subscribers)
  - → Save The Bay's *Volunteer News* email newsletters (4,000 subscribers)

- → Social media posts (20,000+ followers)
- → Save The Bay's *Tides* magazine (4,000 subscribers)
- → @RIDOTNews mentions across social media platforms

- **Train** storm drain marking volunteers to complete a successful event. STB staff/leadership will attend and support projects.
- **Report** back to RIDOT on annual project goals and outcomes.



Save The Bay will leverage DOT funding with that of other donors and grants. The total cost for Save The Bay to purchase supplies and successfully mark upwards of 200 or more storm drains each year throughout the Watershed, over five years, is **$25,000 ($5,000/year).**

Save The Bay is committed to carrying out activities that directly impact water quality in Narragansett Bay and the waters of the Watershed. The Storm Drain Marking program directly relates to our organizational objectives of improving watershed-wide management of polluted runoff, reducing, nutrient loads entering the Bay, reducing the annual number of beach closure days, and promoting the restoration of local waters.

Save The Bay is excited to launch this partnership with RIDOT to engage the public in protecting water quality in Narragansett Bay and the Watershed. We are appreciative of RIDOT reaching out to Save The Bay to partner on this project – capitalizing on what each of our organization's does best and using our communal resources to protect Narragansett Bay.

SAVE THE BAY
NARRAGANSETT BAY

Storm Drain Marking Partnership
RI DOT Budget

SD Tags 200	$ 3.65	$ 1,460
SD Adhesive	$ 6.10	$ 244
Shipping	$10.74 / $100	$ 182
Staff 60 hours/year	$ 40.00	$ 2,400
Supplies (Trash bags, brochures, gloves, paper towel, etc)		$ 189
Travel VM for SDM Projects	$ 0.47	$ 70
Overhead 10%		$ 455
Cost per Year		$ 5,000

Exhibit B – Sample form of request for reimbursement documentation

FFY2023 Audubon Society of Rhode Island

FEIN# 05-0265675	RIDOT Financial Management Two Capitol Hill Providence, RI 02903	Purchase Order No. 3698602-4	Invoice Date: 7/11/23
BILL TO:	ATTN: Accounts Payable, Room 230	Billing Period: May 1 – June 30, 2023	Payment Terms 15th following month
		Invoice No. 5	Progress Report No. 5
		Task No. 2	

Remit to: Audubon Society of Rhode Island
12 Sanderson Rd., Smithfield RI 02917

Contract # - 3698602-4 - Stormwater Improvement & Education Partnership Agreement

PROGRAM MANAGER

Name: Ryan Kopp Phone: 719-214-1269
Email: RKopp@asri.org

ORGANIZATION OFFICES

Street: 12 Sanderson Rd.
City & State: Smithfield, RI ZIP: 02917-2600

Contract No.	Item (s)	Project Name	Line #	Award Amount	Amount of Reimbursement
3698602-2	Water Monitoring	Water Monitoring	1	$25,000	$1,818.93
3698602-2	Arts Festival+Murals	Public Education	2	$43,000	$ 6,291.17
3698602-2	StormDrain Markings	Public Education	3	$12,000	$ 34.74
3698602-2	Website-Social	Public Education	4	$10,000	$ 1,841.47
3698602-2	Training	Training and Innovation	5	$28,000	$2,942.10
3698602-2	Curriculum	Training and Innovation	6	$27,000	$ 1,511.95
3698602-2	Innovation	Training and Innovation	7	$0.00	$ 0
3698602-2	STU Monitoring	Water Monitoring	8	$5,000	$ 0
				Total Reimbursement Due	**$14,440.36**

All purchases need proof of payment attached. Cancelled checks or receipts.
LINE 1: Receipts for water monitoring supplies $1818.93
LINE 2: Receipts for rain barrel retrofit kits, art and supplies for stormwater school programs and educators $3007.79
All other costs associated with staff time/fringe.

MONTHLY PROGRAM NARRATIVE (see "additional summary space" if needed):

Authorizing Official's Signature | Financial Acceptance

I certify under penalty of perjury that all work for which payment is requested has been performed and that such performance and payments to employees are in full compliance with the provisions of the agreement.

Additional Summary Space

MONTHLY PROGRAM NARRATIVE:

May 2023

FUNDING AND STAFFING

We have completed a draft of our next charter with RIDOT. The document can be viewed in the following share folder. This charter will fund collaborative efforts to monitor the performance of various treatment technologies under varying maintenance frequencies at the inflow to Roger Williams Park, the 2024 Rain Harvest Festival, the 2024 Stormwater Mural Program, a stormwater social media campaign, and multiple 2024 professional workshops, webinars and trainings. Total budget is $150,000. Heather Hamilton is reviewing.

We applied for the Edward Ely Neighborhood Performing Arts grant in May. These funds would be used to enhance art performances at the Rain Harvest Festival. Announcements will be made in June. Total request $2000.

High school student Ainsley Gibbons from Lincoln School is currently working on a short internship with Audubon, and among a few other projects, has been painting extra rain barrels that were not used with schools this year. These barrels are being painted with native plant and butterfly designs, and other natural themes. This internship is part of a school community action project.



Roy Arezzo has been hired by the Nature Conservancy to support and expand the SIC cyanobacteria monitoring and outreach program. Roy will work with our IBES intern to collect cyanobacteria samples and information at RIDEM and RIDOH monitoring sites this summer. They will also be coordinating public outreach events to inform lake users about harmful algal blooms (HABs) dangers.

MONITORING

The Treatment Train went out for construction bid in May. Construction delays are already expected, pushing the completion date back to late November. Our sampling team is eager to develop a sampling plan once construction begins. We will monitor at 3 locations within the treatment series. Stormflows greater than 2.5 cfs will be diverted into the treatment train. The train will consist of a Jellyfish filter and a Biochar platform. We will use ISCO automated samplers to collect flow-weighted samples upstream of the Jellyfish filter, between the Jellyfish filter and the Biochar platform and downstream of the Biochar platform to assess nutrient and bacteria reduction of each technology.
We will also compute flow entering the system by monitoring water level within the pipe and using Manning's equation to estimate velocity. Pollutant loads will be estimated. Monitoring and training associated with the Treatment Train will be covered in Charter 3.

We have 5 out of 6 sites in Roger Williams Park covered for doing summer water quality sampling through Watershed Watch. Volunteers received training in May and sampling kits have been distributed. Yuna Sato, our IBES intern will cover the final sampling site and also provide backup for volunteers when they can't collect their samples.

Our cyanobacteria monitoring schedule is slowly becoming more clear. Every 2 weeks, RIDEM monitors 20 lake sites around Rhode Island for cyanobacteria blooms. We will monitor those same sites, but on opposite weeks. We have purchased 60 Abraxis Microcystin test kits to do field testing of cyanobacteria toxins. If a potential bloom is observed, we will collect a sample and also test for toxins with the Abraxis field kit.

The sample will be taken to the RIDOH laboratory for toxin analysis. We will be comparing the results of the field kits with lab results to verify accuracy of the kits. At each site we will also be collecting information to support the Cyanobacteria Monitoring Collaborative. We will take BloomWatch photos, sample for phycocyanin and cholorphyll concentrations, and take microscopy photos of toxin forming cyanobacteria genus. This information will all be uploaded in real-time to our cyano DASHBOARD.

We will also be supporting EPAs CyAN program by collecting phycocyanin data at 10 other lake sites around the state. These samples will help ground truth their satellite data.

We will also be working with a URI student, Charles McInernery, who received a NASA Space Grant Fellowship to work on HABs. He will be collecting UVVis spectrometry and cyanobacteria data in Roger Williams Park over the summer and comparing the data to NASA Sentinel 2 images.

PUBLIC OUTREACH



The stormwater mural project is coming to a close, with three of the four schools (Central High School/New Urban Arts, Eden Park Elementary, and Paul Cuffee School) having completed painted barrels! In early-mid June, Eden Park and Paul Cuffee will have celebration ceremonies to commemorate the end of this project and highlight student creativity and engagement. Paul Cuffee has been completing a Fish in the Classroom unit with the Woonasquatucket River Watershed Council (WRWC), and will have their celebration in conjunction with WRWC as they finish that program and release their fish into the Woonasquatucket River! Eden Park Elementary will be installing their completed rain barrels at the school, as they plan to install new school gardens in early June. The remaining painted barrels from other schools may be used in Audubon auctions, or be raffled at the Rain Harvest Festival on October 1st. We may retain some for educational purposes. More photos can be found HERE.

TRAINING.



Our final Stormwater Maintenance and Inspection training was held in May. We partnered with the town of North Kingstown and RIDEM to host this training at the NK Town Hall. RIDEM outlined MS4 requirements for towns and NK staff talked about their Stormwater Program, working with HOA's and shared lessons learned. Presentations were followed by two green infrastructure site visits. More social media photos, HERE.

INNOVATION:

RIDOT Charter 2 match funds were used as part of our 2022 Restore America's Estuary grant. Atomic Clock Video finished a first cut, for a video that will be on our RainSnap.org site. The video can be viewed here. We will provide them with feedback and comments at our 6/1 leadership meeting. If you have any comments or feedback, let us know! A second video will go into more detail about how to volunteer, how to sign up, how to find a site, what to capture with "snaps" and how to upload videos. A 3rd 20-second social media video will also be created to promote the website.

JUNE 2023

MONITORING

Six volunteers received training and began water quality sampling in the Roger Williams Park ponds in June. They will collect weekly and bi-weekly temperature, dissolved oxygen and chlorophyll data. Monthly, they will collect pH, alkalinity, total and dissolved nutrients, and bacteria samples. Previous years data can be view HERE. Yuna will serve as a backup and coordinator, assisting volunteers with sampling.



We began cyanobacteria monitoring in June. Sampling locations can be found HERE. This monitoring will be supporting the Cyanobacteria Monitoring Collaborative, EPA and RIDEM/RIDOH projects.
We will be doing bi-weekly visual assessments, microscopy, flurometry and toxin sampling at 22 sites around Rhode Island. All data and information is uploaded in real-time to our cyanobacteria DASHBOARD. We were also interviewed by the Audubon Report writer about the work being done.

TRAINING.

We met with the Green Infrastructure Coalition team to begin initial planning of the Stormwater Expo. The hold date is October 18th. The proposed Expo theme will be stormwater as it relates to climate resiliency. We will coordinate to find speakers and presenters. A draft summary of the event is below.

Nature-Based Solutions for Climate Resilience

This year's GIC Expo will focus on the role of green infrastructure and nature-based solutions in making RI communities more resilient to the effects of climate change, including sea-level rise, flooding and increased precipitation, and warmer temperatures. Topics may include: coastal adaptation and strategies for enabling nature to migrate inland; the benefits of buffer restoration and phytotechnology for pollutant removal and flood mitigation; tree planting for cooling and flood mitigation; as well as current and potential state and federal funding sources for climate resilience work.

INNOVATION:

We made good progress on Rainsnap.org in June. The homepage keynote video was completed, sites mapped and site content and text were created. We will begin beta testing uploads of storm events and recruiting volunteers in July. We have scheduled a time to meet with the Nuevas Voces WRWC group to include them in the beta testing. If you would like to be a beta-tester or provide feedback about the website in general, we would love it!

We met with a Massacusetts Planning Comission (MAPC) team that have been developing a GIS based green infrastructure siting tool. The tool was originally intended for four cities with MS-4 permits in MA. They were looking to get feedback on the tool, if it would be useful for non-profits and possible additions and improvements for future versions.

We met with a team from Hamilton University that are developing floating wetland technology that reduces nitrogen concentrations in lakes and ponds. We are exploring options for implementing their proto-type in the Roger Williams Park ponds or Mashapaug pond. We would also collect data to monitor real-world effectiveness.

PUBLIC OUTREACH

The Rain Harvest Festival date has been changed to Sunday, September 24 from noon – 3 p.m. Our rain date will be Sunday, October 1st, and the Festival will be held at Roger Williams Park on the Boathouse Lawn (same location as last year). Planning for environmental workshops, artists, food trucks, and other activities has just started. We have decided to do an online auction of some of the painted rain barrels leading up to the Festival as a way to promote the program. We will also be raffling some remaining barrels at the Festival itself, and can promote that throughout the online auctions as well.



In June, two participating school schools wrapped up with the Stormwater Mural Project – Paul Cuffee School in Providence and Eden Park Elementary in Cranston. Paul Cuffee School also worked with the WRWC (Woonasquatucket River Watershed Council) this year through their Fish in the Classroom program. We had a joint celebration at Riverside Park in Providence with the WRWC to highlight the students' painted barrels and also do a fish release with RIDEM (along with a few other fun activities!). Eden Park Elementary was able to install all three of their painted barrels at the school, and installed several new gardens with the help of donations from local organizations and businesses that they will use rain barrel water to take care of.

We held a rain barrel workshop at the West Broadway Neighborhood Association's Garden Stroll Event on Saturday, June 24th. The Garden Stroll was a neighborhood-wide social event including garden tours given by homeowners, workshops, and deals with participating businesses. We showcased one of the rain barrels decorated by Ainsley Gibbons, educated passersby on the Stormwater Innovation Center's mission and projects, and demonstrated how to build and use a rain barrel to participants.

Rhode Island Department of Transportation - Environmental Division

Expenditure/Billing Report

Agency Name: Providence Stormwater Innovation Center

Project Name: Stormwater Improvement & Education Partnership

Billing Period: From May 1, 2023 To June 30, 2023

Category/Item	Maximum Value	Expenditures			
		Previously Reported	This Period	Cumulative	
1. Water Monitoring	$25,000.00	$8,826.43	$1,818.93	$10,645.36	
2. Arts Festival/Murals	$43,000.00	$13,004.15	$6,291.17	$19,295.32	
3. Stormdrain Markings	$12,000.00	$69.49	$34.74	$104.23	
4. Website-Social	$10,000.00	$4,742.66	$1,841.47	$6,584.13	
5. Training	$28,000.00	$19,374.02	$2,942.10	$22,316.12	
6. Curriculum	$27,000.00	$11,282.63	$1,511.95	$12,794.58	
7. Innovation	$0.00	$0.00	$0.00	$0.00	
8. STU Monitoring	$5,000.00	$173.72	$0.00	$173.72	Balance
TOTAL	$ 150,000.00	$ 57,473.10	$14,440.36	$71,913.46	$78,086.54

Notes:

1) Enter the beginning and end dates covering the bill. Report all expenses on cash basis.

I certify that the expenditures submitted are true and accurate and conform with the terms of the agreement with the Department. I further certify that any matching requirements as provided for in the contract are satisfied.

Signature | Ryan Kopp, Stormwater Director (Name, Title) | July 10, 2023 (Date)

Email monthly billing invoices to DOT.AccountsPayable@dot.ri.gov
CC: heather.hamilton@dot.ri.gov, alisa.richardson@dot.ri.gov, & joseph.baker@dot.ri.gov

Audubon Invoice
Rain Barrel Mural For Eden Park Elementary School
2023

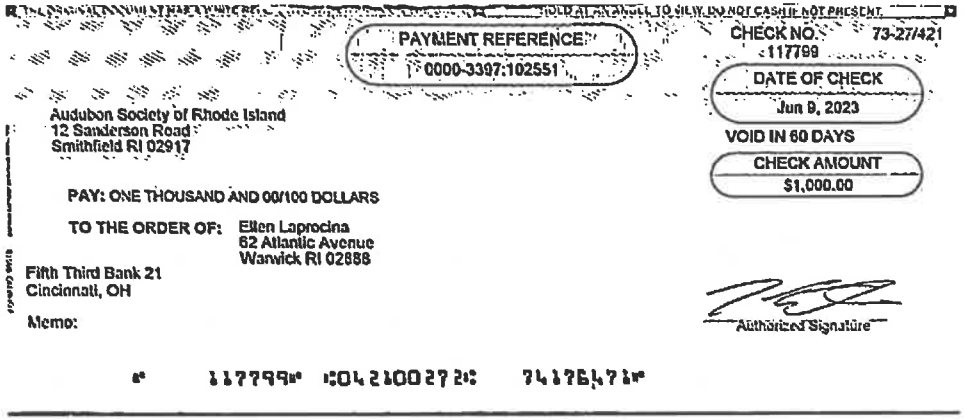
Please remit payment to:

Ellen Laprocina
62 Atlantic Avenue
Warwick, RI 02888

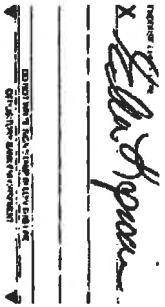
401-489-9178

40 hrs at $25 per hour for teaching art classes at Eden Park Elementary School and painting rain barrels in collaboration with the Stormwater Innovation Center.

Total due: $1000



077636262



New Urban Arts
705 Westminster Street
Providence, RI 02903
401751-4556
info@newurbanarts.org
www.newurbanarts.org

Pledge

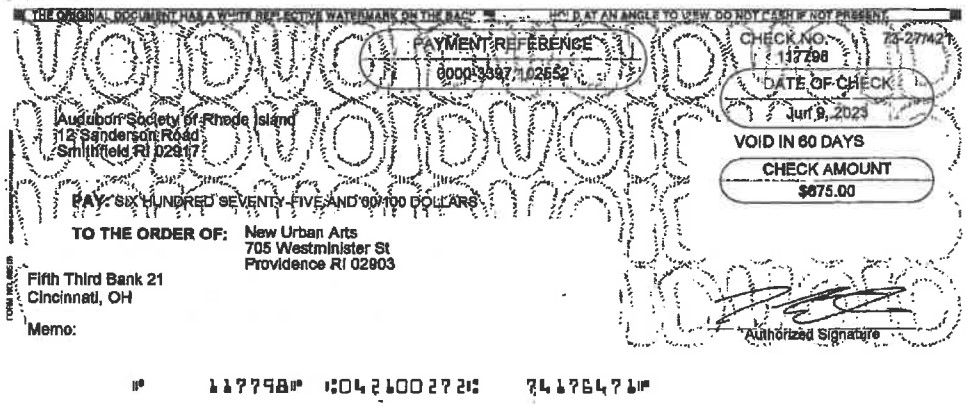
BILL TO
The Audubon Society of RI
Stormwater Innovation Center
12 Sanderson Road
Smithfield, RI 02917

PLEDGE # 5368
DATE 04/28/2023

DESCRIPTION	AMOUNT
Spring Rain Barrel Project: Instructor Sherly Torres hours (planning & instruction)	675.00

Please make check payable to:
New Urban Arts
705 Westminster Street
Providence, RI 02903

BALANCE DUE **$675.00**



THE ORIGINAL DOCUMENT HAS A WHITE REFLECTIVE WATERMARK ON THE BACK — HOLD AT AN ANGLE TO VIEW. DO NOT CASH IF NOT PRESENT.

VOID VOID VOID

Emilia Schonthal
Teaching artist

314 Broadway Apt 1
Providence, RI 02909

857 891 9569
eschonthal645@gmail.com

Recipient:
Audubon Society of Rhode Island
12 Sanderson Road, Smithfield, RI 02917
401-949-5454 ext. 3022

6.8.23

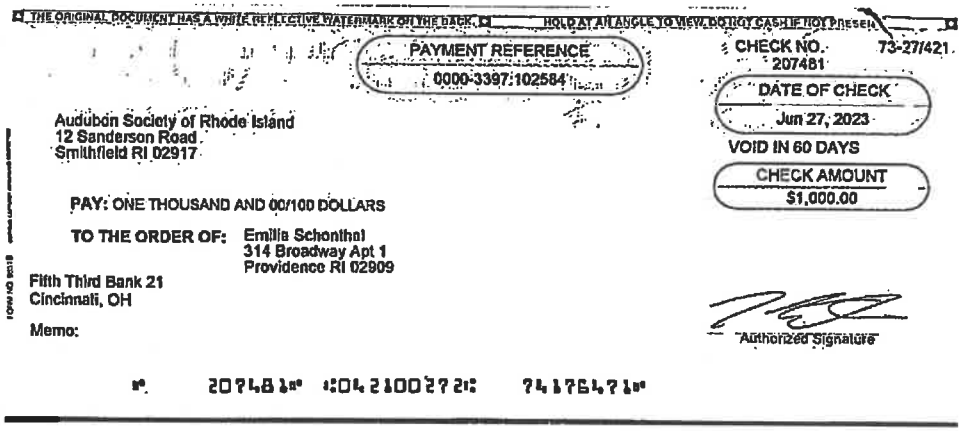
Invoice:

Total hours: 40 hours
Breakdown of work:

TOTAL AMOUNT:
$1000.00

- Attendance at in school program, field trip, teaching artist meeting, celebration.
- Ordering materials took several hours to figure out, source, and keep below budget
- One full day of work putting together students ideas after the first class and sketching out rain barrel mural
- Extra hours figuring out the schedule of how the classes would run
- One full day of work painting rain barrels base color and laying out designs
- Two teaching days, the second day ran a couple hours over due to transition times and clean up. Both days I got there early to prep.
- I added an extra hour to cover some materials I had forgotten to order and ended up buying on my own.

Make all checks payable to Emilia Schonthal
Payment of entire invoice amount is required within 30 days of invoice date
PayPal: @EmiliaSchonthal
Venmo: @Emilia-Schonthal


THE ORIGINAL DOCUMENT HAS A WHITE REFLECTIVE WATERMARK ON THE BACK. HOLD AT AN ANGLE TO VIEW. DO NOT CASH IF NOT PRESENT

PAYMENT REFERENCE
0000-3397-102584

CHECK NO. 207481 73-27/421

DATE OF CHECK
Jun 27, 2023

VOID IN 60 DAYS

CHECK AMOUNT
$1,000.00

Audubon Society of Rhode Island
12 Sanderson Road
Smithfield RI 02917

PAY: ONE THOUSAND AND 00/100 DOLLARS

TO THE ORDER OF: Emilia Schonthal
314 Broadway Apt 1
Providence RI 02909

Fifth Third Bank 21
Cincinnati, OH

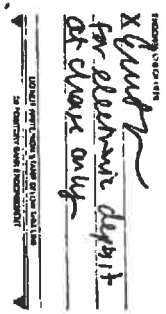
Memo:

Authorized Signature

⑈ 207481⑈ ⑆042100272⑆ 7417547 1⑈

For Deposit Only - JPMC

077697688



ABRAXIS INC
2200 RITTENHOUSE STREET
STE 175
DES MOINES, IA 50321
717-556-3526

EUROFINS ABRAXIS INC

Date: 05/31/2023 03:13:54 PM

CREDIT CARD SALE

MASTERCARD
CARD NUMBER: **********2197 K

TOTAL AMOUNT: $1,818.93

APPROVAL CD: 06869Q
RECORD #: 008
CLERK ID: AROLA
INVOICE #: 263879
customer Name : Audubon Society of Rhode Island-AU10008

Customer Copy

GOLD STANDARD DIAGNOSTICS
124 Railroad Drive
Warminster, PA 18974-1449
Phone: 215-357-3911
E-mail: info.abraxis@us.goldstandarddiagnostics.com

Invoice

Date	Invoice #
5/31/2023	263879

Bill To	Ship To
Audubon Society of Rhode Island Attn:Ryan Kopp 12 Sanderson Road Smithfield, RI 02917	Stormwater Innovation Center Attn:Ryan Kopp 5 Brookside Drive East Greenwich, RI 02818

P.O. Number	Account #	Terms	Rep	Ship	Ship Via	F.O.B.
Credit Card	AU10008	Due on receipt	AR	5/31/2023	FedEx Ground	Warminster PA

Part Number	Description	Quantity	Lot Number	Price Each	Amount
520022	ABRAXIS® Microcystins, 0-10(20) ppb, Recreational Water with QuikLyse® Feature, Dipstick, (EPA ETV), 20-test	3	P23E1166_FEB_2024	592.31	1,776.93
Shipping	Shipping via FedEx ground	1		42.00	42.00

ORDER CANCELLATION & RETURN POLICY:
•Orders may be cancelled at any time prior to shipment without penalty with the exception of orders for custom or made-to-order products which must be cancelled, in writing, within 3 days of order receipt.
•Due to the perishable nature of many of our products, Eurofins Abraxis is not able to accept returns on products that have already shipped unless 1) the return is requested as the result of a verified product defect or 2) the order cancellation request is made, in writing, within 3 days of order receipt.
•For order cancellations received within 3 days of order receipt that have already shipped, the customer will incur a 25% restocking fee plus associated shipping charges to and from the destination. Restocking fees and shipping charges do not apply at any time if the product is being returned due to a verified manufacturing defect.
•Exceptions may be made to this policy at the sole discretion of Eurofins Abraxis, on a case-by-case basis

Remit to: Gold Standard Diagnostics Horsham, Inc.
PO Box 1473
Carol Stream, IL 60132-1473

Total	$1,818.93
Payments/Credits	$0.00
Balance Due	$1,818.93

MENARDS – RAIN BARREL RETROFIT KITS

Order 44060749 Order Date: **06/29/2023**

Merchandise Subtotal: **$319.84**

Processing Fee: **$2.80**

Sales Tax: **$0.00**

Shipping Charges: **$10.15**

Order Total: **$332.79**

Payment Method:
Mastercard - 2197 $332.79

- Transaction ID: 4102
- Register ID: 78
- Store Number: 3331

Oakland Beach Parking Lot
Warwick, RI

Site Description

The parking lot at Oakland Beach is a heavily used parking area overlooking Greenwich Cove. A stone revetment separates the parking lot from the cove. An area at the southeast corner of the parking lot regularly experiences flooding. The entire parking lot drains to a single catch basin along the south edge of the parking lot, which discharges to an outfall set at or below the high tide line. Stormwater from the lot likely contributes to frequent beach closures. The site discharges to Greenwich Cove, which is listed as impaired for fecal coliform, dissolved oxygen, and total nitrogen. Greenwich Cove had a RIDOT Stormwater Control Plan developed in 2017.

Proposed Concept

The proposed concept for this location includes:

- Creating a bioretention area separating the parking lot and the stone revetment.
- Installing filter strip areas planted with beach grass in areas where bioretention is not feasible to further reduce imperviousness.

The lot currently has a one-way traffic pattern and over-wide drive aisle providing an opportunity to remove pavement and install a bioretention area along the stone revetment, without impacting dimensional requirements or reducing parking. Additional storage volume is possible by moving the timber guard rail and co-located, electrical conduit back approximately four feet. Based on the existing flow patterns in the parking lot, two inlets to the basin are proposed, each with a pretreatment system, such as a Rain Guardian or grouted cobbles.



Figure 1. Existing conditions and drainage issues at southeast corner of parking area of Oakland Beach, Warwick RI.

Plat/Lot: 376-549
Address: 899 Oakland Beach Ave, Warwick, RI, 02889
Anticipated permitting sources: Assent permit, Coastal Hazard Application, Water Quality Certification and Stormwater CGP Application.

RIDOT PROTECT - Partnership Project
Stormwater Treatment Units

Oakland Beach
Warwick, RI



RIDOT PROTECT - Partnership Project
Stormwater Treatment Units

Pond Plaza Shopping Center Center
Warwick, RI

Site Description

The Pond Plaza Shopping Center features multiple local businesses in the City of Warwick, and is surrounded by impervious surface with no stormwater management. The Shopping Center has an expansive asphalt parking lot which drains directly to Sand Pond, a small waterbody which is impaired for total phosphorous and dissolved oxygen. Additionally, the playground area of the on-site day care (Liddle Tots II Teen) is nearly entirely impervious surfaces, outside of a sand play area. The overwhelming paved surfaces promote localized flooding, which impacts the daycare and increases pollutant loading into this impaired aquatic system via large volumes of untreated stormwater runoff.



Figure 2. Existing building conditions of the Pond Plaza Shopping Center, and Liddle Tots II Teen Day care, at 1160 Post Road, Warwick RI.

Proposed Concept

The proposed retrofits at this location would include:

- Pavement removal in the eastern portion of the Sand Pond Plaza parking lot and the Liddle Tots daycare play area.
- Revegetation of the newly depaved surfaces to enhance stormwater infiltration and treatment.

The large parking lot currently has a two-way traffic pattern and over-wide drive aisle, providing an opportunity to remove pavement and decrease impervious surfaces. Pavement removal will provide needed stormwater treatment while also increasing green space to an otherwise all-asphalt area. The extent of pavement removal proposed here would not impacting dimensional requirements of remaining parking spaces, nor reduce parking below a threshold acceptable by the landowner. The area proposed for pavement removal was strategically selected to expand on existing greenspace and provide flood relief for the daycare playground area.



Figure 3. Existing conditions of the parking lot area, site of proposed pavement removal, for water quality improvements to Sand Pond.

Plat/Lot: 298-18
Address: Pond Plaza Shopping Center, 1160 Post Road, Warwick, RI, 02888
Anticipated permitting sources: Freshwater Wetlands Permit, Water Quality Certification and Stormwater CGP Application

RIDOT PROTECT - Partnership Project
Stormwater Treatment Units

Pond Plaza Shopping Center
Warwick, RI



Tree

Other Tree

0 25 50 100

Feet

FUSS & O'NEILL

RIDOT PROTECT – Partnership Project
Stormwater Treatment Units

Agnes B. Hennessey Elementary School
East Providence, RI

Site Description

The Agnes B. Hennessey Elementary School is surrounded by impervious surface with no stormwater management or shading from street trees. The school has an asphalt playground and staff parking area, which drains to Mercer and 7th Streets. An additional play area at the northeast corner of the school was previously a parking lot and is not shaded. Existing stormwater flows from city streets, the school playground and parking lot, entering the City's storm drain system on 5th Street and at the intersection of Fort Street and Lyon Avenue. The City is currently refurbishing sidewalks around the school, many of which are wider than necessary, and installing curb inlet tree filters. The school is located in a 2022 Environmental Justice planning area, and discharges to the impaired Providence River, which is currently undergoing development of a RIDOT Stormwater Control Plan.

Proposed Concept

The proposed retrofits at this location are suggested in two phases and would include:

- Install curb inlet planters along the playground and Mercer Street.

Curb inlet planters along Mercer Street will provide needed stormwater treatment while also providing green space and tree canopy to an otherwise all-asphalt play area. A curb inlet leading to a sediment forebay of grouted stone will improve ease of maintenance for City staff. Ornamental trees, shrubs, and grasses will provide shade and reduce the urban heat island effects.

Plat/Lot: 376-549
Address: 75 Fort Street, East Providence, RI, 02914
Anticipated permitting sources: Water Quality Certification and Stormwater CGP Application.



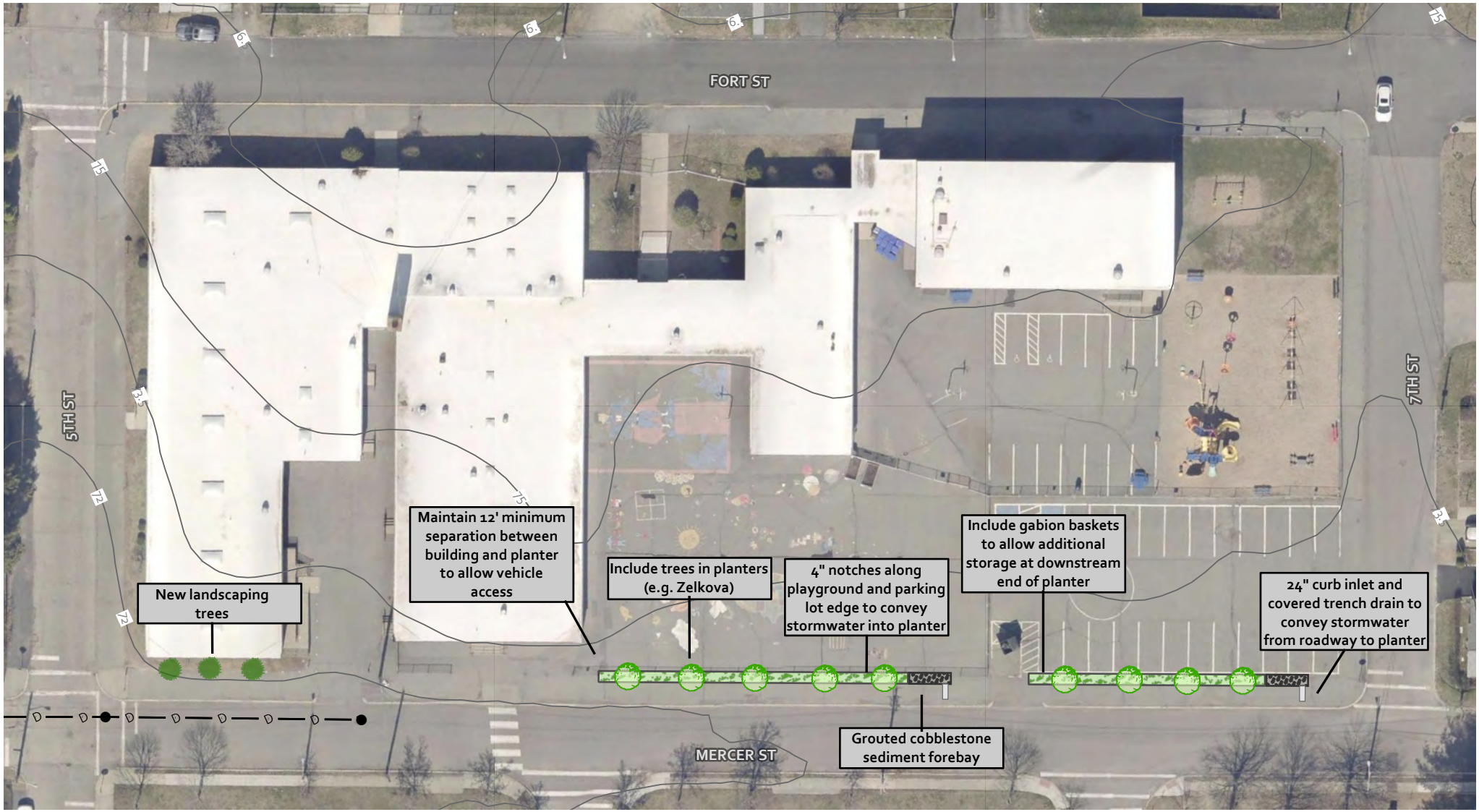
Figure 4. Existing conditions on Mercer Street (towards 7th Street), including recent improvements. Curb inlet planters are proposed along the left sidewalk adjacent to the fence.



Figure 5. Existing conditions on Mercer Street (towards 5th Street) showing the Agnes B. Hennessy Elementary School building adjacent to the proposed project site. Curb inlet planters are proposed along the left sidewalk adjacent to the fence.

RIDOT PROTECT - Partnership Project
Stormwater Treatment Units

Agnes Hennessy Elementary School
East Providence, RI



Proposed Curb-Inlet Bioretention Planter
Existing Pipe
Inlet
Pretreatment
Tree
Other Tree
Existing DMH

0 25 50 100
Feet

FUSS & O'NEILL

RIDOT PROTECT - Partnership Project Stormwater Treatment Units

Pond Plaza Shopping Center Center Warwick, RI

Site Description

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RIDOT PROTECT - Partnership Project
Stormwater Treatment Units

Pond Plaza Shopping Center
Warwick, RI



Tree

Other Tree

0 25 50 100

Feet

FUSS & O'NEILL

COOPERATIVE AGREEMENT

Between

The Rhode Island Department of Transportation

and

The University of Rhode Island Coastal Resources Center

for

Piloting MyCoast as a Tool for Monitoring Upland Flooding

This Cooperative Agreement is entered into as of the ____ day of ____,2024 by and between the **University of Rhode Island (URI)** and the **Rhode Island Department of Transportation** (RIDOT).

OBJECTIVE

The URI/CRC agrees to work with RIDOT staff to pilot MyCoast as a tool for upland flooding to capture site-specific visual data on stormwater flooding. This will further build capacity to better understand how increased precipitation and subsequent flooding impact communities, their transportation roadways, and adjacent properties. The URI-based team will convene a working group, along with a small group of community "scientists" in Olneyville to develop, deploy, and test the program which will then be expanded to another neighborhood. The funding is to provide a proof of concept, in coordination with RIDOT, to determine if and how to expand through the state.

URI CRC Responsibilities

PROJECT DESCRIPTION (see Appendix A for full Scope of Work and Budget)

The CRC will convene a working group consisting of RIDOT, stormwater experts, Woonasquatucket River Watershed Council (WRWC), representative targeted users/organizations in pilot areas, and Providence officials to aid in the design and development of the upland flooding tool pilot project taking place in Olneyville. This includes input on data needs and use, outreach strategies, and the integration and adaptation of the new upland flooding tool into the existing MyCoast platform.

The CRC will further work on the design of the upland flooding tool through review of other programs that incorporate upland flooding monitoring, such as the New York and New Jersey MyCoast initiatives, while identifying the key information to be collected by the volunteer as well as the information to be collected via third-party data sources. The working group will identify quality control and quality assurance measures that need to be taken when when collecting and analyzing data. The data will be shared with the public and interested groups through various outlets such as GIS maps and story maps, in addition to the MyCoast RI portal.

CRC, in tandem with the working group, will identify lessons learned through the pilot project to develop a strategy for a phased approach for expansion.

Benefits for RIDOT, City of Providence, and the local neighborhoods - The upland flooding tool will provide real-time, ground-truth information on flooding hotspots, which will be useful for RIDOT, as well as local officials and residents to better understand the issues and impacts in the urban area. This can be used for both storm preparation and mitigation strategies. This documentation of floods, linked to real-time weather information, will provide data to help RIDOT and local government prioritize and target maintenance, repair, and projects to upgrade infrastructure.

Delivery - In Year 1, CRC will collaborate with a working group and local "community scientists" to create the pilot application of the upland flooding tool to targeted areas and will undergo evaluation from both CRC and its partners to make changes as needed. CRC will create a foundation for public outreach strategies and materials to further expand the project to a second neighborhood. CRC will have and maintain both a publicly accessible database and an updated MyCoast RI website and phone app that incorporates the upland flooding tool.

In Year 2, the program will continue work with leaders in Olyneville to expand outreach in Olyneville, while recruiting new volunteers in another Providence neighborhood. The working group will review lessons learned, as a means to develop a strategy for future expansion of the program to other communities in RI.

Program Evaluation – The URI team and the Upland Flooding Tool working group will evaluate the Upland Flooding Tool pilot program to evaluate its effectiveness and needs for improvement prior to statewide expansion.

TIMELINE & DURATION

The project is estimated to require 18 months of effort. Most of the planned activities (see Scope of Work), will be conducted in both years; the project is designed with an approach that includes tool development followed by an iterative deployment (testing, improvements, and expansion) throughout the duration of the project.

BUDGET AND PERSONNEL (for more detail, see attached Scope of Work and Budget)

Coastal Management Specialist (Casey Tremper) and Director of Extension (Jennifer McCann) will lead the project and coordinate all project activities with partners. With support by a graduate student and local community-based organization, the

Communications Specialist (Susan Kennedy, Monica Allard Cox, or Sea Grant Fellow) will provide communications support for website development and outreach materials.

The coordinator (TBD) will provide administrative and financial support to support project management.

Blue Urchin Ltd to maintain and adapt online hosting for the "MyCoastRI"

Providence-based community-based organization that will co-lead the participant working group, directly engage with, and support on-the-ground efforts with community members.

Note: This agreement is contingent upon approval of the proposed scope of work and budget by the URI Research Office.

Rhode Island Department of Transportation Responsibilities

The RIDOT Team will work with URI CRC and provide input/feedback on the MyCoast flooding tool and its application for RIDOT operations, as appropriate. Members of the Project Team from RIDOT will be

- Alisa Richardson, RIDOT Administrator, Environmental Division
- Jennifer Ryan, Chief Program Development, Environmental Division

In addition to the staff mentioned above, the RIDOT will commit a total not to exceed **$200,000** in funding.

PAYMENT

The RIDOT shall remit to the University of Rhode Island $200,000 to pay for the total project's costs in a purchase order for the full amount, through the URI Office of Sponsored Projects. The URI CRC shall submit bills quarterly for approval by the RIDOT. Once the expenses are approved by RIDOT then funds will be charged against the PO.

GENERAL TERMS

- **Termination**: the RIDOT may terminate this Agreement upon ten days written notice to the URI CRC.
- Should URI CRC wish to terminate the Agreement, written notice must be sent to the RIDOT stating the intent and RIDOT will respond in writing.
- **Assignment**: Neither Party may assign its rights or obligations under this Agreement without the prior written consent of the other Party.
- **Entire Agreement & Amendment**: This Agreement constitutes the final expression of the agreement between the Parties in relation to the subject matter hereof; it is intended as a complete and exclusive statement of the terms of their agreement. This Agreement shall not be changed, modified, supplemented, or amended except by express written agreement signed by both Parties.
- **No Waiver**: Neither Party shall be deemed to waive any rights hereunder unless such waiver is in writing and signed by both Parties.
- **Governing Law**: This Agreement shall be governed by and construed in accordance with the laws of the State of Rhode Island, without giving effect to its conflict of laws rules.
- **Credit Notation:** Interim and final products developed pursuant to this Agreement shall indicate that the RIDOT and the US Department of Transportation, Federal Highway and Transit Administrations were supporting funders of the project and shall include the names and logos of the above-noted agencies.

APPROVED:

Peter Alviti, Jr. P.E. Date
Director, RIDOT

Sara Clabby Digitally signed by Sara Clabby
Date: 2024.12.16 13:03:03 -05'00'

Date

Sara Clabby, Assoc. Director - Post Award
URI Office of Sponsored Projects

APPENDIX A

Scope of Work: Piloting MyCoast as a Tool for Monitoring Upland Flooding
Rhode Island Department of Transportation and the University of Rhode Island Coastal Resources Center/Rhode Island Sea Grant
November 1, 2024 - April 30, 2026 (18 months)/$200,000

Since 2014, the University of Rhode Island Coastal Resources Center, with its sister program, Rhode Island Sea Grant (URI CRC/SG) has engaged the State, several municipalities, community organizations, and Sea Grant programs in the northeast to implement community science shoreline change monitoring efforts. These efforts provide communities with the best available science, tools (apps), and activities to help them understand and address flooding issues, a key aspect of climate change. A significant aspect of the work engages a broad constituency in learning how to make use of the MyCoast RI cell phone app so people can take part in gathering, describing, uploading, and sharing visual documentation of flooding, and then participate in public dialogue to inform how such change can be addressed at the local level via practical means.

Now, as the State increasingly faces stormwater management issues caused by upland flooding tied largely to rain, URI CRC/SG offers a tailored version of its monitoring program to assist the State in this work. The focus of the 18-month effort is to provide the Rhode Island Department of Transportation (RIDOT) with place-based data on street flooding, together with a diversity- and community-based engagement effort to build local-level capacity (State and City of Providence government agencies, residents, local businesses, community organizations, and others) for collaborative monitoring, using a new feature of the MyCoast RI app specifically targeted to urban upland flooding.

Scope of Work (SOW)

Goal: Via this SOW, URI CRC/SG will develop and implement a community-based MyCoastRI engagement program so diverse audiences in specific urban areas of Providence can build their capacities for visual data collection with the tool, and then share the information with RIDOT and partners to use for dialogue and activities focused on understanding and addressing upland flooding issues and resulting "hotspots." This program can then serve as a model for future similar efforts throughout Rhode Island.

Overall Approach: Develop the "seed" project for the Olneyville neighborhood, provide a MyCoastRI basic education program to a core group of participants and support them as they begin applying the program to photograph flooding. Once piloted with a core group, the area and number of participants will expand to two Providence neighborhoods. Outreach will focus on engaging the wider arena of public, private sector, and community entities together to learn from the group's experience and identify ways for the information to be used in upland flooding solution discussions. The process will then be enhanced and tailored for further application, should additional funding be secured, in other portions of Providence or Rhode Island.

Activities:

1. *Convene a working group and participant cadre.* We will bring together a slate of technical experts and community leaders/representatives who can competently and confidently advise the team on program activities, types of information to collect through the app, and options for how to use the collected information. Likewise, we will work with this group to secure the pilot group of participants, and we will aim to bring diverse and lesser-heard voices to both the advisory and participant groups.

2. *Design the Upland Flooding Tool.* In collaboration with the working group, the existing MyCoast app will be reviewed and adapted to support upland flooding elements relevant to the RI context. URI will coordinate with MyCoast providers (Blue Urchin, Inc.) to make these changes to the existing platform (website and app) to accommodate the new upland flooding capabilities. Also, URI will interview similar programs locally and regionally to ascertain appropriate types of information to be collected by the participants, as well as additional environmental data to be collected using third-party data sources (in addition to the precipitation, river/tide gauge, temperature and wind).

3. *Plan the science and outreach products to share the information.* In addition to the MyCoast.org/RI maps and database, we will identify other tools to share information, such as a Storymap illustrating the information in a usable way. For outreach, we will work with the community partners and RIDOT as appropriate, to secure media coverage and ascertain an appropriate suite of products that can reach a broader neighborhood audience (this could involve Spanish translations) via a mix of printed and online vehicles, with potential items being hard copy meeting flyers or posters for placing in neighborhood stores and community gathering spots, a quarterly email newsletter, social media, a concise summary report, and public talks and discussions at key community events.

4. *Deploy a pilot application.* Once designed, the upland tool will be initially piloted with a small group of participants in Olneyville so that the team can evaluate the information collected based on feedback from participants and decision-makers. Based on the feedback, the MyCoast tool can be further adapted. The team will then expand the tool to select Providence neighborhoods to grow the participant base. When storms approach, the team will launch communications to activate participants by sending out alerts so they can take photos of flooded areas. After storms, the project team will review the photos, summarize the information collected and share with participants and decision makers.

5. *Evaluate progress and identify opportunities for expansion.* We will work with the advisory group and participants to understand project progress and opportunities for improvement, and we will also work with these teams to identify potential funding sources so the work can continue and expand, both in Providence and perhaps in other areas of Rhode Island.

Deliverables:

- Updated MyCoastRI website and phone app that incorporates upland flooding 'tool' (Activity 1 and 2)
- Public outreach strategy and materials (Activity 3)
- Pilot application of the new tool to targeted areas (Activity 4)
- Publicly accessible database of georeferenced photos and environmental data. (Activity 4)
- Strategy for a phased approach for expansion (Activity 5)

Staffing:

- Jennifer McCann (Director, U.S. Coastal Programs, Director of Extension, RI Sea Grant) to oversee the project team and support program strategy and implementation.
- Casey Tremper, (Coastal Resilience Specialist) oversees the MyCoastRI program and for this effort will coordinate all project objectives and partners, lead technical aspects for the MyCoast upland tool, and oversee the implementation of the MyCoast Upland pilot deployment in Providence.
- Sue Kennedy (Spec. Public & Communications) to provide communications support for outreach materials, press engagement, and events
- Monica Allard Cox (RI Sea Grant Communications Manager) will provide communications support for the website and social media, and deploy participants to engage with MyCoast.
- TBD, Administrative support for budgeting, travel, and contracting logistics.
- Graduate student to support efforts to adapt the upland MyCoast tool, engage the working group, and review/synthesize monitoring data with GIS, trends, and participation information.
- MyCoast providers (Blue Urchin) to maintain and adapt online hosting "MyCoast" (*https://mycoast.org/ri*) suite of tools to allow for full application of the program, data organization, and phone application.
- Providence-based community-based organization that will co-lead the participant working group, directly engage, and support on-the-ground efforts with community members.

Budget: Attached

UNOFFICIAL BUDGET

Summary

Budget for: Piloting MyCoastRI as a Tool for Monitoring Upland Flooding
Monday, November 18, 2024

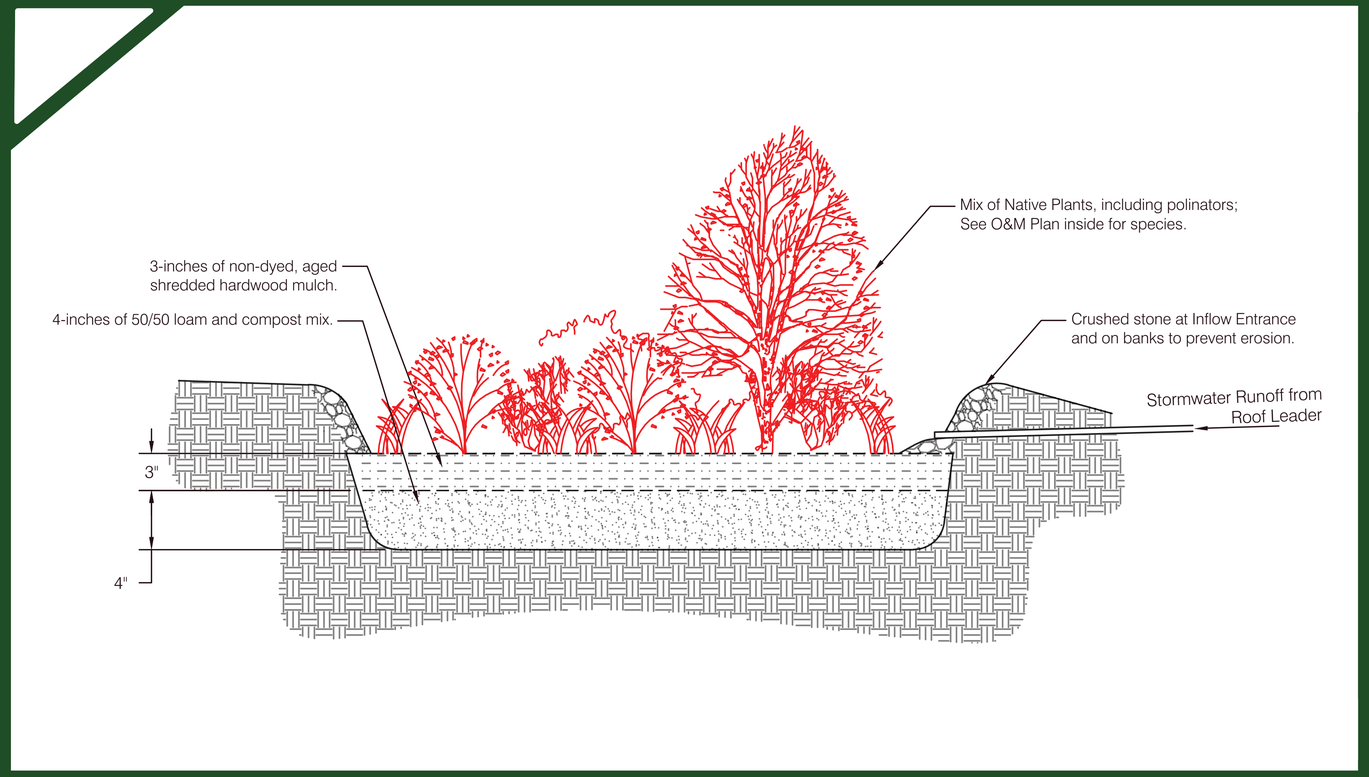
Proposal:	P13794
Sponsor:	RI Dept. of Transportation
Investigator:	Jennifer Mccann
Project Period:	12/1/2024-5/31/2026

Category	Item	Period 1	Period 2	Total
Labor	Jennifer Mccann	4,173.20	0.00	4,173.20
	Casey K Tremper	19,987.23	18,248.13	38,235.36
	TBN TBN	10,133.60	0.00	10,133.60
	GRA Level 1 Summer TBN	4,683.00	0.00	4,683.00
	Grad. Student hourly Academic TBN	11,807.00	0.00	11,807.00
	Monica M Allard Cox	0.00	12,826.79	12,826.79
	Susan B Kennedy	12,758.38	0.00	12,758.38
	Subtotal Personnel:	**63,542.41**	**31,074.92**	**94,617.33**
Consultant Services	Consultant Services	15,000.00	5,000.00	20,000.00
Other Costs	My Coast Fees	21,000.00	10,000.00	31,000.00
	Translator	1,500.00	1,000.00	2,500.00
Participant Other	Food Participant events	1,388.00	1,388.00	2,776.00
Participant Stipends	Participant Stipends	2,000.00	2,000.00	4,000.00
Supplies	Flyers	1,500.00	1,000.00	2,500.00
Travel-Domestic	Travel-Domestic	1,000.00	500.00	1,500.00
	Subtotal Non-Personnel:	**43,388.00**	**20,888.00**	**64,276.00**
	Total Sponsor Direct Costs:	106,930.41	51,962.93	158,893.34
	Sponsor F&A:	26,921.03	12,629.48	39,550.51
	Total Sponsor Costs:	**133,851.44**	**64,592.41**	**198,443.85**

ATTACHMENT 1P - Nature at Work

Nature is at work here!

www.greeninfrastructureri.org



Clean
Uses plants and soils to filter out pollution.

Protect
Absorbs rain and reduces flooding.

Cool
Replaces hard surfaces that hold heat.

Economy
Design and Labor was donated to build this rain garden.

Wellness
Cleans our air and creates welcoming spaces.

Habitat
Attracts animals like butterflies, turtles and frogs.

Common Fence Point Rain Garden - Side View

The New England Water Environment Association (NEWEA) Young Professionals Committee, Eastern RI Conservation District staff and Common Fence Point community members built this 750 square foot rain garden in June 2018 as part of ongoing improvements to the neighborhood's community center. The rain garden is designed to capture and treat 50% of the community center's roof stormwater runoff that would otherwise fall onto the ground untreated and make its way to the nearby Mt. Hope Bay. All of the plants are native to Rhode Island and help restore the natural beauty of the Common Fence Point community.

WHAT IS THE COST?
The cost for this 750 sq. foot rain garden was approx. $5,000 through funding from the Van Beuren Charitable Foundation. Design and labor were donated.

ATTACHMENT 1Q

2024 Stormwater/MS4 Related Staff Training			
Date	**Webinar/Training**	**Hosted By**	**Staff Names**
1/18	NBC CSO Tunnel Tour	Narragansett Bay Commission	Ian Kirby Deirdre Paiva David Messier Nick Wentzell
1/23	Challenges Related to Large Diameter Sewer Design, Installation, and Testing	Contech	Ian Kirby
3/26	Emerging Stormwater Technologies in RI	Stormwater Innovation Center /SNEP Network	Joseph Baker Ian Kirby David Messier Jennifer Ryan
4/25	Everything a Civil Engineer Needs to Know about Hydrodynamic Separators	Contech	Ian Kirby
4/26	2024 Sustainable Water Compliance Summit	Aqualis	Ian Kirby
5/15	2024 Stormwater Innovation Center Maintenance Training for Staff	Stormwater Innovation Center	Ian Kirby David Messier
5/23	2024 RI Flood Mitigation Association Conference	RIFMA	Trevor Cirillo Ian Kirby Nicole Lineberry David Messier Jennifer Ryan Nick Wentzell
5/30	2024 Stormwater Innovation Center Maintenance Training for GI Owners	Stormwater Innovation Center	Trevor Cirillo Ian Kirby David Messier
8/5 - 8/9	Culvert Assessment Training	Blackstone Watershed Collaborative	Sofia DaSilva Michael Preiss
8/22	Hiddent Assets: Advancements in Storm Sewer Design and Technologies	Contech	Ian Kirby
9/5	Combined Sewer Overflow, Oh no!: An Introduction to CSO and What it Means for the Blackstone River	Blackstone Watershed Collaborative	Nick Wentzell
9/10	Minnesota Stormwater Seminar Series: Emerging policy issues that influence stormwater managment efforts	University of Minnesota	Deirdre Paiva
10/8	Vueworks Immersion Training	RIDOT	Joseph Baker Alisa Richardson
10/9 - 10/11	NASSCO PACP/MACP/LACP Training	NASSCO	Trevor Cirillo Dave Messier

10/16	RI Green Infrastructure Expo	Stormwater Innovation Center	Trevor Cirillo Joseph Baker Ian Kirby David Messier Deirdre Paiva Alisa Richardson Jennifer Ryan Nick Wentzell
10/22	Vueworks Immersion Training	RIDOT	Deirdre Paiva
10/24	Reduce Stormwater Infrastructure With Porous Pavements	Presto Geosystems	Ian Kirby
10/28	Hydrologic Response Units-- Practical Ways to Incorporate Stormwater into Reginoal and Local Planning	SNEP Network	Ian Kirby
11/8	Latest Trends in Rhode Island Stormwater Management	EBC	Ian Kirby
11/14	Large or Small, Sanitary or Combined | Complete Storage Solutions	Contech	Ian Kirby
12/5	Climate Smart BMPs: Building Resilient Stormwater Quality Measures	Stormwater University	Ian Kirby
12/11	3D Printed Culvert Diffuser Technology Webinar	Transportation Infrastructure Durability Center, Umaine	Nick Wentzell

NOTICE OF AVAILABILITY

2024 DRAFT ANNUAL REPORT OF THE RIDOT PHASE II STORMWATER MANAGEMENT PROGRAM PLAN

The Director of the Rhode Island Department of Transportation (RIDOT) hereby gives public notice that the Draft 2024 RIDOT Storm Water Management Program Plan Annual Report, prepared in accordance with the Rhode Island Pollutant Discharge Elimination System (RIPDES) Program, is available for public inspection, review, and comment.

For further information and/or a copy of the document, please visit DOT's Environmental Division website at: **www.dot.ri.gov/EnvironmentalDivision/** or contact Heather Hamilton at: RIDOT, Environmental Division, 360 Lincoln Ave, Warwick, RI 02888, 401-479-4892, heather.hamilton@dot.ri.gov.

Documents may be reviewed online at **www.dot.ri.gov/EnvironmentalDivision/** from JANUARY 31, 2025 to MARCH 3, 2025.

PUBLIC HEARING:
A public hearing on the Annual Report will be held if RIDOT receives such requests from twenty- five (25) people, a government agency or subdivision, or an association having not less than twenty-five (25) members. If a public hearing is to be held, a public notice will be published announcing the date, time, place of such hearing, and the deadline for submitting written comments.

PUBLIC COMMENT PERIOD: (JANUARY 31, 2025 to MARCH 3, 2025)
All comments on the documents should be submitted in writing or via email post-marked no later than 4:00 PM on Monday MARCH 3, 2025. If, during the public comment period, significant new questions are raised concerning the document, DOT may require a new draft or may reopen the public comment period. A public notice will be issued for any of these actions.

FINAL DECISION AND APPEALS:
Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final decision and forward a copy of the final documents to RIDEM and each person who has submitted written comments or requested notice.

SECTION 206 — PERIMETER EROSION CONTROLS

206.01 DESCRIPTION.

This work includes providing erosion, sediment, and pollution prevention controls in reasonably close conformity with the required dimensions and details. Erosion, sediment, and pollution prevention controls include the following four types. Ensure that all erosion, sediment, and pollution prevention controls and devices are in place before the start of excavation when required by the SWPPP/SESC and other Contract Documents. **SECTION 907** addresses dust control to reduce dust nuisance and hazards.

206.01.1 Baled Straw Erosion Checks.

Baled straw erosion checks include baled straw, each bale of which is embedded and attached to the ground with wooden stakes.

206.01.2 Silt Fence.

Silt fencing includes oak fence posts to which are attached industrial support netting and sediment control filter fabric.

206.01.3 Baled Straw Erosion Check and Silt Fence Combined.

Baled straw erosion checks and silt fence combined includes baled straw erosion check installed abutting the filter fabric side of a silt fence, with a minimum of 6 in. along the bottom edge of the silt fence toed in under the baled straw erosion check.

206.01.4 Compost Filter Sock.

Compost filter socks include a flexible mesh tube filled with composted material and staked to the ground with wooden stakes.

206.01.5 Surface Erosion Controls.

This work includes providing surface erosion and sediment control devices on previously shaped and seeded areas at the required locations.

206.02 MATERIALS.

206.02.1 Baled Straw Erosion Checks.

Ensure that baled straw is baled within 12 months of use. Ensure that bindings are sufficiently strong to act as handles when placing bales in position by hand. Use a minimum dimension for bales of 18 in. Use wooden oak stakes, 1-in. × 1-in. in section and at least 3 ft in length.

206.02.2 Silt Fence.

Ensure that the filter fabric consists of a material suitable for erosion control applications and is included on the Department's Approved Materials List. Use wooden oak posts, 2-in. × 2-in. in section and at least 4.5 ft in length. Use support netting of heavy-duty plastic mesh. For prefabricated silt fences, 1-in. × 1-in. wooden posts will be permitted.

206.02.3 Baled Straw Erosion Check and Silt Fence Combined.

Ensure that baled straw conforms to **Subsection 206.02.1**. Ensure that silt fencing conforms to **Subsection 206.02.2**.

206.02.4 Compost Filter Sock.

Ensure that compost filter sock material contains composted organic matter according to AASHTO Designation R 51-13 and meets all applicable Federal and State regulations. For compost filter socks 18 in. or less in diameter, use wooden stakes 1 in. × 1 in., at 10-ft intervals on center, and of a length that projects into the soil 1 ft leaving 3 in. to 4 in. protruding above the filter sock. For compost filter socks greater than 18 in. in diameter, use wooden stakes 2 in. × 2 in., at 10-ft intervals on center, and of a length that projects into the soil 1 ft, leaving 3 in. to 4 in. protruding above the filter sock. Use filter sock netting materials made of biodegradable materials if to remain in place.

206.02.5 Surface Erosion Controls.

Ensure that the erosion control mats consist entirely of biodegradable materials. Do not use materials that are bleached, dyed, or otherwise treated with a material or in a manner that will result in toxicity to seeding, soil, or vegetation. Use erosion controls that are non-toxic to plants, soil, or unprotected human skin.

1. Hydraulic Mulch Stabilizer. Asphalt based stabilizer is prohibited. Provide hydraulic mulch stabilizer type, mix, and application rate according to the manufacturer's requirements and as directed by the Engineer.

2. Straw Mating. Use straw matting that consists of a machine-produced mat of clean, weed free, 100 percent grain straw. Ensure that the width is 40 in. to 90 in. and that the matting weighs between 0.50 and 0.75 lb/sq yd. Evenly distribute the straw throughout the mat with a thickness between ⅜ in. and ⅝ in. Cover the top of the blanket with a photodegradable plastic mesh with opening sizes between ⅜ in. and 1 in. Ensure that the mesh adheres to the straw by a knitting process using biodegradable thread.

3. Jute Matting (Mesh). Ensure that this natural biodegradable product consists of a uniform, plain weave of undyed and unbleached, smolder resistant, natural spun single jute yarn. Ensure that the material is at least 4 ft wide, weighs 1.2 lb/linear yd and has approximately 78 warp ends per width of cloth and 41 weft ends per yard.

4. Excelsior Matting. Use an excelsior matting that consists of machine-produced curled wood excelsior mat with at least 80 percent 6-in. or longer fiber with even distribution and consistent thickness. Ensure that the fiber diameter is between 0.015 in. and 0.15 in. For

standard weight product, cover the top of the blanket with a polypropylene mesh with ⅜-in.to 3-in. openings. Ensure that the dry blanket weight is at least 0.80 lb/sq yd. For heavy duty product, cover the top of the blanket with polypropylene mesh with ⅜-in. to 1½-in. openings. Ensure that the dry blanket weight is at least 1.4 lb/sq yd.

5. Staples. Use staples that are 11-gauge untreated or uncoated steel wire formed into a U or T shape with 6 in. or longer vertical legs. Ensure that the horizontal measurements of staples are longer than two mesh opening diameters. Longer staples may be required for looser soils.

206.03 CONSTRUCTION METHODS.

Install the required pollution controls before initiating any drainage, roadway, or bridge construction or disturbance of any soils.

206.03.1 Baled Straw Erosion Checks.

a. Installation. The following stipulations apply:

- Arrange bales in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another.
- Entrench and backfill the erosion check. Excavate the trench so that the width of the bale and the length of the check is a minimum depth of 3 in. After the bales are staked and chinked, backfill the excavated soil against the check. Ensure that the backfill conforms to the ground level on the downhill side and is built up to 4 in. against the uphill side.
- Install the bales so that the bindings are oriented around the sides of the bales rather than along their tops and bottoms.
- Securely anchor each bale with at least two stakes driven through the bale. Drive the first stake in each bale toward the previously laid bale to force the bales together.
- Ensure that the gaps between bales are chinked (filled by wedging) with straw to prevent water from escaping between bales. Scatter loose straw over the area immediately uphill from the bale erosion check to increase efficiency.
- At approximately 100-ft intervals, place one bale against the bales positioned along the limit of clearing. Place this bale at a right angle to the line of the toe of slope.

b. Removal. Before removal, remove all accumulated sediment and debris on both sides. Do not remove erosion controls until the adjacent exposed areas are free from future uncontrolled discharges. Remove all baled straw erosion checks from the bales at a time designated by the Engineer. Remove the erosion check only after the adjacent exposed area has been stabilized; i.e., after the area has an established grass or stone cover or has been paved and is free from future uncontrolled discharges. Upon removal of the bales, backfill the remaining exposed areas (under the bales) with plantable soil, raked and graded as necessary to match the surrounding grade and then seeded.

206.03.2 Silt Fence.

a. Installation. The following stipulations apply:

- Dig a 6-in. deep by 1-ft wide minimum trench where the fence will be installed.
- Position the fence in the trench with the fence posts set at 8 ft on center (maximum) in wetland areas and 4 ft on center (maximum) in wetland ravine, gully, or drop-off areas.
- Staple the sedimentation control fabric and the industrial netting to each post. When joints are necessary, splice the filter fabric together only at support posts. Overlap splices 6-in. and securely seal the filter fabric.
- Drive each wood post, with industrial support netting and filter fabric attached, into the undisturbed soil in the trench.
- Backfill the trench and compact the soil over the filter fabric.
- Ensure that the installed height of the fence is 30 in. (minimum) not to exceed 36 in.

b. Removal. This work includes the removal of the silt fence erosion checks and posts. Do not leave silt fences in place. Before removal of the fence, remove all accumulated sediment and debris on the upstream side. Do not remove erosion, sediment, and pollution prevention controls until the adjacent exposed areas are free from future uncontrolled discharges. Only remove a silt fence when the adjacent exposed area is stabilized; i.e., the area has an established grass or stone cover or has been paved and is free from future uncontrolled discharges. Upon removal of the silt fence, finish the remaining exposed areas as specified in **Para. b** of **Subsection 206.03.1**.

206.03.3 Baled Straw Erosion Check and Silt Fence Combined.

a. Installation. Install Baled Straw Erosion Check and Silt Fence Combined according to **Para. a** of **Subsections 206.03.1** and **206.03.2**, with the following additional provisions:

- Install silt fencing before installing the baled straw.
- Ensure that the trench is a minimum of 6-in. deep and has a width sufficiently wide to accommodate the baled straw as it abuts the filter fabric side of the silt fence.
- Before backfilling the trench, install the baled straw tight against the filter fabric side of the silt fence, with a minimum of 6 in. of the bottom edge of the silt fence toed in under the baled straw within the trench.

b. Removal. Remove the combined baled straw erosion check and silt fence according to **Para. b** of **Subsections 206.03.1** and **206.03.2**. However, do not allow the baled straw erosion checks to rot in place. Before removal of the combined baled straw erosion check and silt fence, remove all accumulated sediment and debris on the upstream side. Do not remove erosion, sediment, and pollution prevention controls until the adjacent exposed areas are free from future uncontrolled discharges.

206.03.4 Compost Filter Sock.

a. Installation. The following stipulations apply:

- Use compost filter socks either fabricated on-site or delivered to the site.
- Trenching is not required. Place the compost filter socks over the top of ground, and drive the wooden stakes in pairs on each side of the filter socks to secure them to the ground. Cut down or remove heavy vegetation, and grade uneven surfaces to ensure that the compost filter sock uniformly contacts the ground surface.
- Place filter socks in a continuous line. Where ends intersect, use a sleeve to create an interlock with a 2-ft overlap. After one section is filled and the ends tied off, pull the next section over the tied-off end of the previous section to create a 2-ft overlap. Stake the overlap and ensure that the intersecting overlaps do not allow stormwater to break through at the intersection points.

b. Removal. This work includes the removal of the compost filter sock and stakes. Before removal, remove all accumulated sediment and debris. Do not remove the erosion, sediment, and pollution prevention controls until the adjacent exposed areas are free from future uncontrolled discharges. Cut open the mesh filter sock material, remove the mesh, rake the compost material out level to the surrounding grades, and then seed. After removal of the compost filter socks, finish the remaining exposed areas as specified in **Para. b** of **Subsection 206.03.1**. For biodegradable filter sock netting material, the materials may remain in place, but the Contractor shall cut open, rake out, level up with the ground, and seed.

206.03.5 Surface Erosion Controls.

Raise the areas to receive surface erosion controls to the required lines and grades with a smooth surface free of depressions and eroded areas that would prevent contact of the matting with the soil or allow water to collect or flow underneath. Install the material immediately after seeding and ensure that the material maintains continuous contact with the underlying soil surface.

Unroll matting in the same direction as the surface flow without stretching so that it will lie smoothly to fit the contour of the finished grade. Install the product with netting on the top side. Where one roll of matting ends and a second begins, overlap the end of the upper roll over the end of the second roll to provide a minimum 12-in. overlap. Ensure that side edges overlap a minimum of 4 in. To secure the matting and to prevent flow from getting underneath and eroding the soil, bury the up-slope end of each separate strip or piece of matting, and staple the ends in an anchor trench at least 6 in. deep and 6 in. wide, with the soil firmly tamped after being backfilled, per the manufacturer's requirements and/or as directed by the Engineer. Anchor the outer edges of the blanketed areas where significant runoff is anticipated in a 6-in. square trench. Where ditch or channel flow pass onto or over the blanketed areas, secure any overlaps or edges likely to be exposed to greater than normal flow and/or velocities and at locations determined by the Engineer using a staple check. Ensure that the staple checks include two rows of staggered staples positioned 4 in. apart on 4-in centers and placed perpendicular to the flow.

Before anchoring the first laid section, adjust the net or blanket laterally in the ditch or channel to raise both edges to approximately the same elevation. Insert staples vertically through the

matting at terminal ends, lapped ends, junctions, and trench checks not more than 9 in. apart. Place staples along the outer edges, overlapped, and in the center of each strip of matting not greater than 3 ft apart.

Mix hydraulic mulch stabilizer in an appropriately sized tank with a built-in, continuous agitation or recirculation system of sufficient operating capacity to produce a homogeneous slurry of product being applied. Apply the slurry in a sweeping motion at the specified rate and at the rate that will provide the designated amounts of mix in a continuous uniform and even coat. Apply the slurry from opposing directions to achieve the best, uniform soil coverage. Ensure that the nozzle is sized to produce a spray that does not concentrate nor wash down the material. Provide a mix and application rate according to the manufacturer's requirements. Provide the mix and rate of the product to the Engineer for approval before mixing and application.

Do not apply hydraulic mulch stabilizer in channels, swales, or other areas where concentrated flows are anticipated, unless installed in conjunction with rolled erosion control products.

Perform inspection, maintenance, and repairs of surface erosion controls according to the required environmental permit inspection plans, reports, and procedures, including the SWPPP and/or SESC plan, the specifications, and as directed by the Engineer. If the permits and reports are not part of the Project, inspect the surface erosion controls for failures at least once per week and within 24 hours of the end of each storm event with a rainfall amount of 0.25 in. or greater for the duration for which the controls are installed. Ensure that the inspection includes assessing the surface beneath the blanket to determine if soils and/or seed have washed away from beneath the blanket, and/or if the Engineer determines that the soil surface can be expected to continue to erode, and/or if the blanket has become dislodged from the soil surface or is torn. Make repairs immediately.

If washouts or breakouts occur, reinstall the blankets after regrading and reseeding, ensuring that the blanket installation still meets the design specification requirements. If repetitive failures occur at the same location, review the conditions and limitations for use and determine if other measures are needed to prevent or reduce failures. Protect all treated areas from foot and vehicular traffic and other disturbances. Repair any damage using the procedures as specified above, according to the manufacturer's requirements, and/or as directed by the Engineer

If the Engineer determines that these requirements have not been met or if controls are not adequately maintained, then enforcement will be applied according to **Subsection 212.03.3**.

206.04 METHOD OF MEASUREMENT.

The following will be measured by the linear feet installed (or removed):

- Baled Straw Erosion Checks
- Removal of Baled Straw Erosion Check
- Silt Fence
- Baled Straw Erosion Check and Silt Fence Combined
- Compost Filter Sock

Surface Erosion Control Matting will be measured by the number of square yards installed.

Surface Erosion Control Hydraulic Mulch Stabilizer will be measured by the number of acres installed.

206.05 BASIS OF PAYMENT.

The Department will pay for the completed and accepted quantities at the Contract unit prices as follows.

Pay Item	Pay Unit
Baled Straw Erosion Checks	LF
Silt Fence	LF
Baled Straw Erosion Check and Silt Fence Combined	LF
Compost Filter Sock	LF
Surface Erosion Control Matting	SY
Surface Erosion Control Hydraulic Mulch Stabilizer	ACRE

206.05.1 Baled Straw Erosion Checks.

The price constitutes full compensation for all labor, materials, and equipment, including excavation, bales, stakes, removal of stakes, removal of straw, grading, raking, seeding necessary to match the surrounding area, and all incidentals required to finish the work, complete and accepted.

206.05.2 Silt Fence.

The price constitutes full compensation for all labor, materials, and equipment, including excavation, filter fabric, industrial netting, posts, removal of fence, grading, raking and seeding necessary to match the surrounding area, and all incidentals required to finish the work, complete and accepted.

206.05.3 Baled Straw Erosion Check and Silt Fence Combined.

The price constitutes full and complete compensation for all labor, materials, and equipment, including excavation, filter fabric, baled straw, stakes, industrial netting, posts, removal of baled straw, removal of fence, backfill material, grading, raking and seeding as necessary to match the surrounding area, and all incidentals required to finish the work, complete and accepted.

206.05.4 Compost Filter Sock.

The price constitutes full compensation for all labor, materials, and equipment, including mesh filter socks, removal of mesh filter socks, compost filter material, stakes, removal of stakes, grading, raking and seeding as necessary to match the surrounding area, and all incidentals required to finish the work complete and accepted.

206.05.5 Cleaning and Maintenance.

The cleaning and maintenance of Baled Straw Erosion Checks, Silt Fence Erosion Checks, Baled Straw Erosion Check and Silt Fence Combined, and Compost Filter Sock will be paid for according to **SECTION 212**. Maintenance includes the removal and proper disposal of all entrapped material.

206.05.6 Surface Erosion Controls Matting and Hydraulic Mulch Stabilizer.

The prices constitute full compensation for all labor, materials, equipment, tools, inspections, maintenance, and other incidentals necessary to finish the work, complete and accepted.

SECTION 207 — CHECK DAMS

207.01 DESCRIPTION.

This work includes providing the required check dams and dikes. Install all erosion, sediment, and pollution prevention controls and devices before initiating excavation when required by the SWPPP/SESC. Check dams include the following types. **SECTION 907** addresses dust control to reduce dust nuisance and hazards.

207.01.1 Sand Bag Erosion Dikes.

This work includes the placement of sandbags across either riprap or earth ditches, forming a dike to create temporary sediment basins for pollution control.

207.01.2 Stone Check Dams.

This work includes the placement of stone in ditches or drainage swales.

207.01.3 Compost Filter Sock Check Dams.

This work includes a flexible mesh tube filled with composted material and staked to the ground with wooden stakes.

207.02 MATERIALS.

207.02.1 Sand Bag Erosion Dikes.

Use material for dumped stone that complies with **Subsection M10.03.2** for Modified NSA Class R-4 riprap. Use filled sand bags that weigh a minimum of 60 lb.

207.02.2 Stone Check Dams.

Use filter stone that complies with **Subsection M01.09**, **Table I**, **Column V**.

207.02.3 Compost Filter Sock Check Dams.

Provide compost filter sock material according to AASHTO Designation R 51-13. In addition, ensure that the compost material meets all applicable Federal and State regulations. For compost filter socks 18 in. or less in diameter, provide wooden stakes that are 1 in. × 1 in. and with a length that projects into the soil 1 ft, leaving 3 in. to 4 in. protruding above the filter sock. For compost filter socks greater than 18 in. in diameter, provide wooden stakes that are 2-in. × 2-in. and with a length that projects into the soil 1 ft, leaving 3 in. to 4 in. protruding above the filter sock. Place stakes at the ends and at 5-ft intervals, center on center.

207.03 CONSTRUCTION METHODS.

Provide the required erosion and pollution controls before initiating any drainage, roadway, or bridge construction or for the disturbance of any soils.

207.03.1 Sand Bag Erosion Dikes.

a. Installation. Place the sand bags a minimum of four layers high. Over the center of the ditch, ensure that the top layer of sand bags has a weir opening equal to one half the bottom ditch width. Extend the sand bags a length so that the bottom of the end sand bags are higher in elevation than the top of the lowest middle sand bag.

   Where the sand bag dike is constructed across an earth ditch, protect the downstream side of the dike at the weir opening with Modified NSA Class R-4 dumped riprap.

b. Removal. Remove sand bag erosion dikes before Project completion when designated by the Engineer. Before removal, remove all accumulated sediment and debris on the upstream side. Do not remove check dams until the adjacent exposed areas are free from future uncontrolled discharges. Upon removal of the sand bag erosion dikes, backfill the remaining exposed areas, rake and grade to match the surrounding grade, and then seed.

207.03.2 Stone Check Dams.

a. Installation. Place the stone across the ditch or swale to achieve total coverage and shape to the required configuration. Slope the stone from the sides of the ditch/swale towards the center so that the center is 6 in. lower than the stone at the sides of the ditch/swale. Provide a check dam with 2H:1V side slopes that do not exceed 2 ft in height.

b. Removal. Remove stone check dams before Project completion when designated by the Engineer. Do not remove until the adjacent exposed areas are free from future uncontrolled discharges. Before removal, remove all accumulated sediment on the upstream side. Upon removal of the Stone Check Dams, backfill the remaining exposed areas, rake and grade to match the surrounding grade, and then seed.

207.03.3 Compost Filter Sock Check Dams.

a. Installation. The following stipulations apply:

   - Compost filter sock check dams may be either fabricated on site or delivered to the site.

   - Trenching is not required. Place compost filter sock check dams over the top of ground, and drive wooden stakes in pairs on each side of the filter socks to anchor the stakes to the ground. Cut down or remove heavy vegetation, and grade uneven surfaces to ensure that the compost filter sock uniformly contacts the ground surface. These may be placed over the top of rolled erosion control mats or turf reinforcement mats, and may be stacked if additional height is needed.

   - Install compost filter sock check dams perpendicular to flow. Extend the check dams to a length where the bottoms of each end are higher in elevation than the lowest middle part or to where the top of the banks (maximum flow line) are reached.

b. Removal. This work includes the removal of the compost filter sock and stakes. Before removal, remove all accumulated sediment and debris on the upstream side. Do not

remove compost filter sock check dams until the adjacent exposed areas are relatively free from future uncontrolled discharges. Unless biodegradable, cut open the mesh filter sock material and remove the mesh. In general, the compost filter material may remain in place. Rake the material level to the surrounding grades, and then seed.

207.04 METHOD OF MEASUREMENT.

207.04.1 Sand Bag Erosion Checks.

Sand Bag Erosion Checks will be measured by the number of sand bags installed.

207.04.2 Stone Check Dams.

Stone Check Dams will be measured by the cubic feet of stone placed.

207.04.3 Compost Filter Sock Check Dams.

Compost Filter Sock Check Dams will be measured by the linear feet of continuous runs of the compost filter sock installed.

207.05 BASIS OF PAYMENT.

The Department will pay for the completed and accepted quantities at the Contract unit prices as follows.

Pay Item	Pay Unit
Sand Bag Erosion Checks	PBag
Stone Check Dams	CF
Compost Filter Sock Check Dams	LF

207.05.1 Sand Bag Erosion Checks.

The price constitutes full compensation for all labor, equipment, and materials, including bags, sand, the subsequent removal of sand bags, removal and disposal of entrapped material, and all other incidentals required to finish the work, complete and accepted.

207.05.2 Stone Check Dams.

The price constitutes full compensation for all labor, materials, and equipment, including the subsequent removal of the stone, removal and disposal of entrapped material, and all incidentals required to finish the work, complete and accepted.

207.05.3 Compost Filter Sock Check Dams.

The price constitutes full compensation for all labor, materials, and equipment, including mesh filter socks, removal of mesh filter socks, compost filter material, stakes, removal of stakes,

removal and disposal of entrapped material, backfill material, grading, raking and seeding as necessary to match the surrounding area, and all incidentals required to finish the work, complete and accepted.

207.05.4 Cleaning and Maintenance.

The cleaning and maintenance of Sand Bag Erosion Checks, Stone Check Dams, and Compost Filter Sock Ditch will be paid for under **SECTION 212.**

SECTION 208 — DEWATERING

208.01 DESCRIPTION.

This work includes dewatering as necessary in excavations for all demolition and construction requiring dewatering Project wide. To avoid water pollution caused by sediment-laden discharge from excavation sites, additional dewatering may be required during high river flow events. When designing, providing, installing, operating, maintaining, and subsequently removing temporary dewatering systems and temporary dewatering basins, ensure that all erosion, sediment, and pollution prevention controls and devices are in place before the start of excavation when required by the SWPPP/SESC. If contaminated materials are within the dewatering location, the groundwater is assumed to be contaminated. Obtain a DEM RIPDES permit for any discharges of the water to a waterbody or storm drain. **SECTION 907** addresses dust control to reduce dust nuisance and hazards.

208.02 MATERIALS.

208.02.1 Dewatering Basins.

Provide precast concrete barrier units that conform to **SECTION 909**. Provide filter fabric that conforms to **Subsection 206.02.2**. Provide filter stone that conforms to **Subsection M01.09, Table I, Column V**. Provide straw bales and wooden stakes that conform to **Subsection 206.02.1**.

208.02.2 Filter Fabric Retention Basins.

Provide fence that conforms to the requirements for Type I Chain Link Fence in **SECTION 903**. Provide wooden posts that are 2-in. × 2-in. oak and at least 3 ft in length. Provide filter fabric that conforms to **Subsection 206.02**. Provide a layer of stone over the bottom of the basin that complies with **Subsection M10.03.2** for Modified NSA Class R-4 riprap.

208.02.3 Contaminated Groundwater Dewatering Treatment System.

The Contractor shall apply for a RIDEM RIPDES RGP.

208.03 CONSTRUCTION METHODS.

Install the required erosion and pollution controls before initiating any drainage, roadway, or bridge construction or for the disturbance of any soils.

208.03.1 Dewatering.

a. Design. Use a Professional Engineer registered in the State of Rhode Island to perform all designs. Submit the following information:

- The qualifications of the Dewatering Contractor. The Dewatering Contractor shall have experience in installation, operation, and maintenance of dewatering systems including well point systems, contaminated water treatment systems, and sedimentation systems.

- Submit Shop Drawings that identify the proposed types and details of the surface water control. This includes dewatering systems (including well details, well screen openings, and filter pack materials), observation well locations, sedimentation tank to be used, and discharge systems.

- Include the arrangements, sizes, capacities, plan locations, and depths of the proposed systems and a description of the equipment, materials, and procedures for the dewatering system; the standby equipment and power supply; and the strategy for the effluent discharge.

- Provide the design details of the on-site sedimentation control structures and the associated piping, including calculations, supporting technical information, and a schedule for cleaning the sedimentation control structures.

- Provide the design calculations documenting that the dewatering system can handle all seepage into the excavation and will prevent piping or boiling of the excavation subgrade.

- Provide the anticipated peak and average dewatering rates.

- Describe the proposed methods for removing the dewatering system elements. If applicable, describe the details for leaving the dewatering system in place.

b. Design and Performance (General). Meet the following design and performance criteria:

- Select the methods for controlling water inside and outside the work area being dewatered for the dewatering system.

- Modify the dewatering and sedimentation treatment system(s) as required to meet the requirements of the work.

- Maintain the site, construction dewatering equipment, and subsurface drainage to protect the construction work. Maintain site grades to direct surface runoff to collection points, and prevent surface water from running or collecting over prepared subgrades, fill surfaces, or the work area being dewatered. Collect and discharge surface water, seepage, precipitation, groundwater, and other water that enters work areas being dewatered. Do not allow standing water to accumulate in excavations or work areas being dewatered.

- Install observation wells, as approved by the Engineer, to monitor the effectiveness of the dewatering system.

- Dewater to allow installation of temporary excavation support elements without loss of ground or unacceptable ground movements.

- Minimize impacts to water levels outside the site limits during construction.

- Dewater so that all construction and demolition is conducted in-the-dry, which means without standing water or saturated conditions that may interfere with construction.

- Implement measures to prevent damage to properties, buildings, structures, utilities, etc.

- Provide design calculations demonstrating that the selected dewatering system(s) can accommodate seepage and prevent piping into the excavation.

- Modify the system(s) at no additional cost to the Department if, while in operation, the system causes or threatens to cause damage to properties, buildings, structures, utilities, etc., or otherwise does not perform as required.

- Repair damage to any utility, structure, and/or facility resulting from dewatering activities.

- Control effluent on-site if the on-site discharge of the effluent does not result in erosion and off-site surface runoff.

- Employ adequate back-up equipment, dewatering system components, and power in case of equipment breakdown. Develop emergency procedures for maintaining continuous, uninterrupted dewatering operations.

c. Design and Performance (Dewatering System). Meet the following design and performance criteria:

- Provide, install, maintain and operate pumps, wells, and related equipment of sufficient capacity to adequately dewater excavations or work areas, until the required construction, installation, and backfilling of underground structures is complete to avoid construction impacts.

- Provide sedimentation basins that accommodate the dewatering flows and that reduce suspended materials in the dewatering effluent.

- Maintain water levels or hydrostatic pressure heads at least 2 ft below excavation to maintain an in-the-dry stable work area and/or subgrade 24 hours per day.

- Prevent loss of fine materials into bedding, piping, boiling up of trench and excavation bottoms, or other disturbances that may cause subsidence or loss of strength of the underlying natural soils.

- Excavate all soils made unsuitable due to inadequate dewatering or disturbance by construction operations, and replace the unsuitable soils with compacted fill.

- If the dewatering procedures result in boiling, loss of fines, ground instability, uncontrolled flow, or other detrimental effects, notify the Engineer of the unsuitable conditions. Modify the operations to correct the problems at no additional cost to the Department.

- Inform the Engineer of any necessary changes in the dewatering system to accommodate field conditions before making any changes.

- Provide access to the dewatering system(s) to facilitate obtaining samples before and after discharge.

- Ensure that the dewatering effluent contains no hazardous materials at concentrations sufficient to cause a sheen or other visual/olfactory evidence of contamination. If these conditions exist, notify the Engineer and discontinue the discharge until the system can be modified.

208.03.2 Temporary Dewatering Basins.

Dewatering basins form a rectangular concrete barrier enclosure, the bottom and sides of which are lined with filter fabric. The bottom fabric is stabilized with filter stone. The basin is divided into the required number of 12-ft sections by stone berms approximately 18 in. high.

a. Installation. The following stipulations apply:

   - Place the precast concrete barrier units on level or nearly level ground.

   - Place filter fabric on the bottom of the area enclosed by the concrete barrier units. If more than one sheet of fabric is required, overlap the adjacent section a minimum of 12 in. to ensure full coverage. Turn up the filter fabric along the inside face of the concrete barriers to the top of the barrier, which is folded across the top of the barriers. Maintain the fabric in position with sand bags, end-to-end, along the top of the concrete barrier enclosure.

   - Spread a minimum layer of 6 in. of filter stone over the bottom of the basin. Locate the stone berms at 12-ft intervals along the basin length.

b. Removal. Do not remove the dewatering basin until all dewatering operations are complete. Before the removal, however, remove all accumulated sediment within the basin according to **SECTION 212**. Seed and mulch the area covered by the basin immediately after the basin is removed. Backfill any voids resulting from dewatering system removal with cement grout, concrete, or other material to prevent potential loss of ground.

208.03.3 Filter Fabric Retention Basin.

The filter fabric retention basin forms a rectangular enclosure formed by a 2-ft high chain link fence. Both the fence and the bottom of the enclosure are lined with filter fabric that is stabilized by a layer of rock riprap.

a. Installation. The following stipulations apply:

   - Place the filter fabric retention basin on stabilized and level ground to prevent erosion by water exiting the basin.

   - Dig a 6-in. × 6-in. minimum trench where the basin will be constructed.

   - Provide the filter fabric and wire backing that is 3 ft wide (minimum) positioned in the trench and secured to metal posts positioned 4 ft on center (maximum).

- Drive the metal posts into undisturbed soil next to the trench to a minimum depth of 12 in.
- Place fill material in the trench and compact.
- Provide an installed height of fence that is 2 ft (minimum).
- Spread a minimum layer of 6 in. of filter stone (Modified NSA Class R-4 riprap) evenly over the bottom of the basin.

b. Removal. Remove the filter fabric retention basin according to the dewatering basin requirements in **Para. b** of **Subsection 208.03.2**.

208.04 METHOD OF MEASUREMENT.

Dewatering is not measured for payment.

Dewatering Basins, Filter Fabric Retention Basins, and Contaminated Groundwater Treatment Systems will be measured by each.

208.05 BASIS OF PAYMENT.

The Department will pay for the completed and accepted quantities at the Contract unit prices as follows.

Pay Item	Pay Unit
Dewatering	LS
Dewatering Basins	EA
Filter Fabric Retention Basin	EA
Contaminated Groundwater Treatment System	EA

The prices constitute full compensation for all labor, materials, and equipment, including installation, subsequent removal, and restoration of basin areas, and all incidentals required to finish the work, complete and accepted.

The cleaning and maintenance of Dewatering Basins, and Filter Fabric Retention Basins, will be paid for under **SECTION 212.**

SECTION 209 — STORM DRAIN INLET PROTECTION

209.01 DESCRIPTION.

This work includes providing temporary storm drain inlet protection facilities. Ensure that all erosion, sediment, and pollution prevention controls and devices are in place before the start of excavation when required by the SWPPP/SESC. Storm drain inlet protection facilities include the following types. **SECTION 907** addresses dust control to reduce dust nuisance and hazards.

209.01.1 Silt Fence Inlet Protection.

This work includes placing a temporary filter fabric fence around inlet grates.

209.01.2 Baled Straw Inlet Protection.

This work includes placing baled straw around storm drain inlets.

209.01.3 Sack Insert Inlet Protection and High Flow Sack Insert Inlet Protection.

This work includes placing a reusable geotextile sack installed in drainage structures for the protection of wetlands and other resource areas and for the prevention of silt and sediment from the construction site from entering the storm water collection system.

209.02 MATERIALS.

209.02.1 Silt Fence Inlet Protection.

Provide a filter fabric material suitable for sediment control applications, selected from the Department's Approved Materials List. Provide wooden posts that are oak, 2-in. × 2-in. in section and at least 4½ ft in length. Provide support netting that is heavy-duty plastic mesh. For prefabricated silt fence, 1-in. × 1-in. wooden posts are permitted.

209.02.2 Baled Straw Inlet Protection.

Ensure that baled straw and wooden stakes conform to **Subsection 206.02.1**.

209.02.3 Sack Insert Inlet Protection.

Provide Sack Insert Inlet Protection with a permeable geotextile that allows water to pass but prevents silt, sediment, and trash from passing. Provide sacks that are woven polypropylene geotextile and sewn by a double needle machine using high strength nylon. Sacks include overflow holes to make the silt sack effective even in the most extreme weather events. Ensure that that sacks meet the following stipulations:

- Minimum puncture strength, ASTM D4533 of 130 lb
- Minimum sieve size of No. 20
- Minimum flow rate, ASTM D4491 of 100 gal/min/sq ft

209.03 CONSTRUCTION METHODS.

Install the erosion and pollution controls before initiating any drainage, roadway, or bridge construction or for the disturbance of any soils.

209.03.1 Silt Fence Inlet Protection.

a. Installation. The following stipulations apply:

- Extend posts at least 1 ft below grade.
- Extend the filter fabric to a height at least 12 in. above the top of the inlet grate but not to exceed 3 ft.
- Extend the support netting to the full height of the filter fabric.
- Excavate a trench approximately 6 in. wide and 6 in. deep around the outside perimeter of the stakes. Extend the filter fabric and support netting at least 6 in. into the trench. After the fabric and support netting are fastened to the stakes, backfill and compact the trench to original grade.
- Securely fasten the filter fabric and support netting fence to the stakes using heavy duty wire staples at least 1-in. long. Ensure that the ends of the filter fabric meet at a stake and are overlapped, folded, and stapled to the stake.

b. Removal. Remove the silt fence inlet protection, and prepare the area for pavement construction once the contributing drainage area is free from future uncontrolled discharges. Before this removal, remove all silt, mud, and debris entrapped by the silt fence and clean the area according to **SECTION 212**.

209.03.2 Baled Straw Inlet Protection.

a. Installation. The following stipulations apply:

- Ensure that the bales are entrenched and backfilled. Excavate the trench to the width of the bale and the length of the check to a minimum depth of 3 in. After the bales are staked and chinked, backfill the excavated soil against the check. Provide backfill that conforms to the ground level on the inside and is built up to 4 in. around the outside.
- Install the bales so that the bindings are oriented around the sides of the bales.
- Securely anchor each bale with at least two stakes driven through the bale. Drive the first stake in each bale toward the previously laid bale to force the bales together.
- Ensure that the gaps between bales are chinked (filled by wedging) with straw to prevent water from escaping between bales.

b. Removal. Remove the baled straw inlet protection, and prepare the area for pavement construction once the contributing drainage area is free from future uncontrolled

discharges. Before this removal, remove all silt, mud, and debris entrapped by the baled straw and clean the area according to **SECTION 212**.

209.03.3 Sack Insert Inlet Protection.

a. Installation. Ensure that the device is manufactured to fit the opening of the drainage structure and is mounted under the grate. Secure the insert sack from the surface so that the grate can be removed without the insert discharging or falling into the drainage structure. Block all curb inlets to prevent stormwater from bypassing the device. Install the sack (geosynthetic filter material), and maintain the sack according to the manufacturer's literature.

   Repair or replace filter bags that become damaged during construction operations or cause water to collect at the surface at no additional cost to the Department.

b. Removal. Remove the insert sack when surface-borne sediment has been stabilized upon completion of final pavement and sidewalk placement and when the adjacent grade areas have become permanently stabilized by vegetative growth. When emptying the sack, ensure that the captured material does not enter the structure. Remove silt, sediment, and other debris found in the drainage system at the end of construction. Ensure that the silt and sediment from the sack are properly disposed of offsite. Do not deposit the silt and sediment from the insert on site or use the silt and sedimentation in construction. Before this removal, remove all silt, mud, and debris entrapped by the sack, and clean the area according to **SECTION 212**.

209.04 METHOD OF MEASUREMENT.

209.04.1 Silt Fence/Baled Straw Inlet Protection.

Silt Fence Inlet Protection and Baled Straw Inlet Protection will be measured by the linear feet of the protection installed.

209.04.2 Sack Insert Inlet Protection.

Sack Insert Inlet Protection will be measured by the number of inlets protected with sacks.

209.05 BASIS OF PAYMENT.

The Department will pay for the completed and accepted quantities at the Contract unit prices as follows.

Pay Item	Pay Unit
Silt Fence Inlet Protection	LF
Baled Straw Inlet Protection	LF
Sack Insert Inlet Protection	EA

209.05.1 Silt Fence Inlet Protection.

The price constitutes full compensation for all labor, materials, and equipment, including excavation, stakes, support netting, filter fabric, backfill, the subsequent removal of the entire temporary facility, removal and disposal of entrapped material, and all incidentals required to finish the work, complete and accepted.

209.05.2 Baled Straw Inlet Protection.

The price constitutes full compensation for all labor, materials, and equipment, including excavation, straw bales, stakes, backfill, the subsequent removal of the entire temporary facility, removal and disposal of entrapped material, and all incidentals required to finish the work, complete and accepted.

209.05.3 Sack Insert Inlet Protection and High Flow Sack Insert Inlet Protection.

The price constitutes full compensation for all materials, including sacks, labor, equipment, and all incidentals required to finish the work, including final removal of the inlet protection device and removal and disposal of entrapped material, complete and accepted.

209.05.4 Cleaning and Maintenance.

The cleaning and maintenance of Silt Fence Inlet Protection, Baled Straw Inlet Protection, and Sack Insert Inlet Protection will be paid under **SECTION 212.**

Payment will not be made for repairs and replacements necessary due to Contractor operations and damage or lack of proper maintenance.

SECTION 210 — TEMPORARY SEDIMENT BASIN

210.01 DESCRIPTION.

This work includes providing temporary sediment basins for water pollution prevention in conformity with the required dimensions and details. Install all erosion, sediment, and pollution prevention controls and devices before the start of excavation when required by the SWPPP/SESC. **SECTION 907** addresses dust control to reduce dust nuisance and hazards.

210.02 MATERIALS.

The materials required for the construction of temporary sediment basin will be on the Plans.

210.03 CONSTRUCTION METHODS.

Construct the temporary sediment basin to retain in the basin any material that may cause damage to a natural water course or the surrounding environment. If the basin is temporary, restore the area where the basin is located to its original condition.

Excavate the temporary sediment basin from the downstream end of the basin proceeding to the upstream end. Before initiating excavation, construct temporary baled straw ditch erosion checks and/or straw log check dams immediately beyond the downstream end of the basin. When the work requiring the temporary basin is complete, remove the control measures.

210.04 METHOD OF MEASUREMENT.

Temporary Sediment Basin will not be measured by a single unit of measurement. Rather, each individual item of work required to provide these basins will be measured by their respective units of measurement for the quantity provided.

210.05 BASIS OF PAYMENT.

Temporary Sediment Basin will not be paid for as completed facilities. Rather, each basin will be paid for at the Contract unit prices for those items of work required to construct the facility and, for temporary basins, those items of work necessary to remove the basin and restore the area to its original or proposed condition and all incidentals required to finish the work, complete and accepted.

The cleaning and maintenance of Temporary Sediment Basin will be paid under **SECTION 212.**

SECTION 211 — CONSTRUCTION ACCESSES

211.01 DESCRIPTION.

This work includes providing stabilized stone pads located at points of vehicular and equipment ingress and egress to and from construction sites to prevent tracking out sediment. Install all erosion, sediment, and pollution prevention controls and devices before the start of excavation when required by the SWPPP/SESC. **SECTION 907** addresses dust control to reduce dust nuisance and hazards.

211.02 MATERIALS.

Provide crushed stone that conforms to **Subsection M01.09**, **Table I**, **Column II**. Provide geosynthetic materials that conform to **Subsection 206.02.2**.

211.03 CONSTRUCTION METHODS.

Install stabilized stone pads for use as construction entrances.

211.03.1 Planning Considerations.

Clean the public roads adjacent to a construction site of any sediment and debris at the end of each day. **SECTION 211** identifies an area where sediment can be removed from the tires or tracks of construction vehicles and equipment before the vehicles and equipment enter a public road. Use construction accesses in conjunction with the stabilization of construction roads to reduce the sediment tracked out by construction vehicles and equipment.

211.03.2 Dimensions.

a. Thickness. Ensure that the thickness of the stabilized stone pad is a minimum of 5 in.

b. Width. Ensure that the width is not less than the full width of the respective points of ingress or egress.

c. Length. Provide a length for construction accesses that is at least 50 ft where the soils are sands or gravels, except where the traveled length is less than 50 ft. Where soils are clays or silts, provide a length for construction accesses that is at least 100 ft, except where the traveled length is less than 100 ft.

211.03.3 Installation Requirements.

Clear the area of the construction accesses of all vegetation, roots, stumps, or other objectionable material. Excavate the area to subgrade and grade the area. Place geosynthetic material on the prepared subgrade before the placement of the stone pad according to the specified dimensions.

211.04 METHOD OF MEASUREMENT.

Construction Accesses will be measured by each access installed.

211.05 BASIS OF PAYMENT.

The Department will pay for the completed and accepted quantities at the Contract unit price as follows.

Pay Item	Pay Unit
Construction Accesses	EA

The price constitutes full compensation for all labor, material, and equipment, including excavating, geosynthetic materials, stabilized stone pad, and subsequent removal of the accesses, and all incidentals required to finish the work complete and accepted. The cleaning and maintenance of Construction Accesses will be paid under **SECTION 212.**

SECTION 212 — MAINTENANCE AND CLEANING OF EROSION, SEDIMENT, AND POLLUTION PREVENTION

212.01 DESCRIPTION.

This work includes:

- The maintenance and cleaning of erosion, sediment, and pollution prevention control items
- Performing inspection and documentation of RIDOT SWPPP and/or RIDOT SESC reports year-round

Install all erosion, sediment, and pollution prevention controls and devices before the start of excavation when required by the SWPPP/SESC. There is no winter shutdown period associated with **SECTION 212**. **SECTION 907** addresses dust control to reduce dust nuisance and hazards.

212.01.1 Applicable Controls.

Clean and maintain erosion, sediment, and pollution prevention controls according to **SECTIONS 206** through **211**.

212.01.2 Definitions.

a. Cleaning. Cleaning includes removing debris and accumulated sediment-laden deposits from the upstream side of perimeter controls, check dams, storm drain inlet protection, construction accesses, and the bottom of temporary dewatering basins and sediment basins. Ensure that all material removed is properly disposed of.

b. Maintenance. Maintenance includes the restoration and repair of damage sustained by erosion and pollution controls from normal rainfall events and the work necessary to prepare for forecasted events. Abnormal weather events are defined in **Subsection 212.03.4**.

c. Inspection. Inspection includes the required environmental permit inspections, plans, reports, and procedures including the SWPPP and/or SESC Plan.

d. Corrective Action Log. Complete a Corrective Action Log to:

- Document, within 24 hours of identification, the specific condition and the date and time it was identified
- Document, within 24 hours of completing the action, the action taken to address the condition
- Store at the site or at an easily accessible location

212.02 MATERIALS.

Provide materials used to repair and restore damaged erosion, sediment, and pollution prevention controls that comply with **Subsections 206.02**; **207.02**; **208.02**; **209.02**; **210.02**; and **211.02**.

212.03 CONSTRUCTION METHODS.

Maintain erosion, sediment, and pollution prevention controls. Provide erosion, sediment, and pollution prevention controls that prevent, under normal weather conditions, both the movement of soil materials and the intrusion of sediment-laden discharges into environmentally sensitive areas.

Do not initiate or continue construction until all specified erosion, sediment, and pollution controls are in place, properly installed, and accepted by the Engineer.

Routinely inspect erosion, sediment, and pollution prevention controls according to the SWPPP or SESC. Conduct these inspections at a minimum of every seven calendar days, within 24 hours of corrective actions occurring, and within 24 hours if the site receives 0.25 in. of rainfall from an individual storm event.

After each inspection, implement corrective actions and perform all necessary cleaning, maintenance, and repairs when the maintenance of the erosion, sediment, and pollution controls is required. Initiate the requisite cleaning, maintenance, and repairs no later than the next consecutive calendar day after the SWPPP or SESC inspection was conducted and expeditiously perform the cleaning, maintenance, and repair work until the issue is remedied. If a holiday or weekend storm event occurs, ensure that the resources are available to restore and, if necessary, to replace any damaged erosion controls.

Perform SWPPP or SESC inspections until the following criteria are met:

- All disturbed areas are permanently stabilized, including storage/laydown areas.
- All Project specific regulatory permit requirements have been met.

212.03.1 Threshold for Cleaning Erosion, Sediment, and Pollution Prevention Controls.

When directed by the Engineer and/or SWPPP inspector/Environmental Monitor, clean the erosion, sediment, and pollution controls after a rainstorm or when sediment deposits reach the heights indicated in the Table below.

Minimum Threshold for Cleaning

Control Type	Threshold for Cleaning (Minimal)
a. Erosion, Sediment, and Pollution Prevention Controls	
1. Baled Straw Erosion Checks	½ Bale Height
2. Silt Fence	6 in.
3. Baled Straw Erosion Checks and Silt Fence Combined	½ Bale Height
4. Compost Filter Sock	½ Sock Height
b. Check Dams	
1. Sand Bag Erosion Dike	½ Dike Height
2. Stone Check Dam	½ Dam Height
3. Compost Filter Sock Check Dam	½ Sock Height
c. Dewatering	
1. Dewatering Basins	½ Original Basin Height
2. Filter Fabric Retention Basin	½ Original Basin Height
d. Storm Drain Inlet Protection	
1. Silt Fence Inlet Protection	6 in.
2. Baled Straw Inlet Protection	½ Bale Height
3. Sack Insert Inlet Protection	⅓ Sack Height or per manufacturer's requirements
e. Temporary Sediment Basin	½ Depth Below Outlet Elevation
f. Construction Accesses	When track out is occurring

212.03.2 Other Requirements.

a. Certification/Registration. Provide a certified SWPPP/SESC inspector to perform and report on SWPPP/SESC inspections. Ensure that the inspector is a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Professional in Stormwater Quality (CPSWQ), or a Rhode Island Registered Professional Engineer. Adhere to the following stipulations:

- A Certified Professional in Erosion and Sedimental Control (CPESC) and/or Certified Professional in Stormwater Quality (CPSWQ) is required to ensure that inspectors meet the Federal requirements, including the USEPA National Pollutant Discharge Elimination System definition of Qualified Personnel. The inspector shall meet the requirements for all Contract permits and State/local regulations.

- A Professional Engineer is considered certified to perform and report on SWPPP/SESC inspections if the Professional Engineer is claiming competency equal to a CPESC or CPSWQ.

- Certified inspectors shall include their valid, applicable certification number and type of certification on each report. Professional Engineers shall seal (stamp) and sign each report.

- The Engineer may reject Certifications and Professional Engineer registrations if:

- SWPPP/SESC reports from the inspector are incomplete/inaccurate, as determined by the Engineer, more than twice in a calendar year.

- The Engineer determines that the certifying agency/organization does not meet these requirements**.**

- A SWPPP/SESC report has been submitted with intentionally incorrect, inaccurate, or missing information, as determined by the Engineer.

- If the Engineer rejects a Certification or Professional Engineer registration, the Engineer, at his/her discretion, may contact the certifying agency/organization to provide the reason for the Engineer's rejection of the certificate.

- If a Certification or Professional Engineer registration is rejected due to the first two items in the 4th bullet above, the inspector shall submit a new certification. There is no time restriction.

- If a Certification or Professional Engineer registration is rejected due to the 3rd item in the 4th bullet above, the inspector shall submit a new certification no sooner than three months after rejection of the certification or registration. In special cases, the Engineer will forward the falsified documentation to RIDEM and/or EPA under the RIDOT Consent Decree reporting requirements.

b. Erosion, Sediment, and Pollution Prevention Controls, Check Dams, Temporary Dewatering Basins, Storm Drain Inlet Protection, Temporary Sediment Basin, and Construction Accesses. The following requirements apply:

- Clean, repair, or replace all noncompliant, damaged, and/or other controls requiring maintenance as identified in a SWPPP or SESC Plan report within 24 hours of identification. Designate a qualified person, experienced in stormwater management and erosion control, to be available on site throughout Project duration. This person shall have the authority to direct Contractor and/or Subcontractor personnel to implement the corrective actions.

  Submit the inspection documentation as a signed SWPPP or SESC Plan report, according to RIDOT's templates or, as provided in the Contract, to RIDOT's Project Manager and Construction Manager. Templates are available on the RIDOT website.

- The Engineer has the authority to verify, enforce, and specify maintenance activities and to ensure that the erosion, sediment, and pollution prevention controls have been properly maintained.

c. Temporary Dewatering Basins and Temporary Sediment Basin. The following requirements apply:

- Periodically inspect the basins for evidence of erosion around the basin and downslope area.

- Implement repairs as directed by the Engineer.

- The Engineer has the authority to verify, enforce, and specify maintenance activities and to ensure that controls have been properly maintained.

212.03.3 Failure to Maintain Erosion, Sediment, and Pollution Prevention Controls.

The Engineer may determine that the required erosion, sediment, and pollution controls are not in place or have not been adequately maintained as recommended by the manufacturer, as specified in this Section or per permit requirements. The Department will deduct the daily charge from the Contractor's payment for failure to comply. The daily charge per incident will continue for each consecutive calendar day thereafter until the deficiencies have been corrected as determined by the Engineer. The failure-to-comply charges are independent of other charges assessed by other agencies and/or entities.

a. General Permit Violation. The following provides examples of a General Permit Violation:

   - Failure to ensure that all stormwater controls are maintained and remain in effective operating condition
   - Working without a permit
   - Land disturbance, permit noncompliance, performing work without proper sediment, erosion, and pollution controls
   - Nonperformance of or falsification of SWPPP/SESC inspection or documentation
   - Non-installed BMP or unmaintained BMP

b. Erosion, Sediment, and Pollution Prevention Controls Violation. Ensure that all stormwater and non-stormwater pollution prevention controls are maintained and remain in proper operating condition. The following provides examples of a Stormwater or Non-Stormwater Pollution Prevention Controls Violation:

   - Failure to comply with any specific maintenance requirements as found in the Contract, SWPPP, SESC Plan, and/or recommended by the manufacturer
   - Failure to prevent non-authorized discharges from leaving the site
   - Failure to install sediment controls along all perimeter areas of the site that will receive pollutant discharges (or, for linear construction sites where the controls are infeasible, failure to implement other appropriate practices)
   - Failure to minimize sediment track-out
   - Failure to properly manage stockpiles or land clearing debris piles composed of sediment and/or soil
   - Failure to minimize dust through appropriate application of water or other dust suppression techniques

- Failure to minimize soil compaction where final vegetative stabilization will occur or where infiltration practices will be installed
- Failure to protect storm drain inlets by installing inlet protection measures that remove sediment from discharges before entry into a storm drain inlet
- Failure to use erosion controls and velocity dissipation devices within and along the length of any stormwater conveyance channel and at any outlets to slow down runoff to minimize erosion
- Failure to initiate and complete stabilization measures within the required deadlines
- Failure to properly install other necessary control measures
- Failure to provide effective controls for equipment and vehicular fueling and maintenance activities
- Failure to effectively minimize the discharge of pollutants from equipment and vehicle washing
- Failure to implement appropriate controls to prevent/minimize the discharge of pollutants from any of the following:
    - Building materials/products
    - Landscaping chemicals and materials
    - Petroleum products and other chemicals
    - Hazardous and toxic waste
    - Construction and domestic wastes
    - Sanitary wastes
- Failure to provide effective controls for concrete washout
- Failure to provide effective controls for washing applicators/containers for stucco, paint, form release oils, curing compounds, or other hazardous materials
- Failure to comply with requirements for construction dewatering to minimize the discharge of pollutants

c. Improper Documentation Violation.

- Failure to complete an Inspection or Corrective Action Log when required
- Failure to properly sign/certify an Inspection or Corrective Action Log
- Falsified Corrective Action Logs
- Not conducting and documenting all required inspections
- Not conducting Inspections with qualified personnel
- Failure to inspect all required areas
- Failure to include all required information

d. Adjustment for Repeat Violations. A repeat violator is an operator of a construction site (Contractor) who has been assessed for Failure to Maintain Erosion and Pollution Controls

previously on the same project. This includes any violations stated previously in **SECTION 212** or otherwise identified in the SWPPP and/or SESC reports. Prior formal enforcement actions also include both EPA and State actions against the Contractor on the same Project. The Department will apply an escalation factor of 25 percent for the second time that failure-to-comply charges are assessed; an escalation factor of 50 percent will be applied to the third or subsequent time a failure-to-comply charge is assessed.

e. Schedule for Stormwater Violations. See **SECTION 110** for the failure-to-comply charges.

212.03.4 Failure of Erosion and Pollution Controls due to Abnormal Weather.

a. Erosion and Pollution Controls. In general, **SECTION 212** applies to the maintenance and cleaning of erosion and pollution controls for normal weather. However, after an abnormal weather event, the Engineer may determine that the controls have been damaged to warrant their partial or total replacement. At the direction of the Engineer to replace the controls, the Contractor will be compensated under the applicable provisions of **SECTIONS 206, 207, 208, 209,** and **210**, if:

- The SWPPP/SESC inspection documents that the controls were in place and maintained in a good state of repair, and
- All reasonable preventive measures had been taken to protect the site, as approved by the Engineer.

b. Abnormal Weather. For application, an abnormal weather event is defined as:

- Rainfall equal to or greater than 1.0 in. within 1 hour
- Rainfall equal to or greater than 2.5 in. within 12 hours
- Rainfall equal to or greater than 3.0 in. within 24 hours
- Extreme weather-related events as defined in **Subsection 104.14**

The Engineer will support the claim of abnormal weather events by documented records from the National Weather Service.

212.04 METHOD OF MEASUREMENT.

Maintenance and Cleaning of Erosion, Sediment, and Pollution Prevention Controls will be measured as a lump sum item.

212.05 BASIS OF PAYMENT.

The Department will pay for the completed and accepted quantities at the Contract unit price as follows.

Pay Item	Pay Unit
Maintenance and Cleaning of Erosion, Sediment, and Pollution Prevention Controls	LS

The price constitutes full compensation for all labor, material, and equipment, including disposal, replacement, and incidentals to **Subsections 206, 207, 208, 209, 210,** and **211;** the inspection and development of SWPPP and SESC reports; and all resources, labor, materials, equipment, and incidentals required to complete the work, including:

- Monthly progress payments under this item will be made according to **Subsection 109.07**.
- Payment for authorized Contract time extensions at either the calculated monthly rate as defined above or on a basis according to **Subsection 109.04**.

If the Contract is completed before the authorized completion date, the final monthly payment will be authorized after completion of the punch list and will include the remaining balance of the Contract lump sum price.

ATTACHMENT 4B - Winter Shutdown Fact Sheet

www.ristormwatersolutions.org

Winter Shutdown

Construction Site Fact Sheet No. 8

What is winter shutdown?

Winter shutdown is a term used to describe the period between November 15 and April 15 where most earth work is halted due to the start of the winter season typically bringing snow and frozen soil.

Why is it important to stabilize disturbed soils before winter shutdown?

It is important to stabilize all disturbed areas of soil before the winter shutdown period to avoid significant erosion. Snowmelt, wind and rain all can erode the soil leaving sediment runoff to pollute the waterways.

How do I prepare my site for winter shutdown?

According to the Soil Erosion and sediment control handbook, **no undisturbed areas will be cleared of existing vegetation after October 15th** during any period of full or limited winter shutdown.

- All disturbed soils exposed prior to October 15, must be seeded or protected by that date by erosion controls.
- Areas without adequate vegetative stabilization (determined by the resident engineer or environmental inspector) by November 15, must be stabilized through the use of erosion control blankets or straw mulch.

What if my site is active during winter shutdown?

If work continues during the period from October 15 through April 15, care must be taken to ensure that only the area required for that day's work is exposed, and all erodible soil must be re-stabilized within 5 working days.

Monitoring your winter shutdown site

Although there is no construction activity at a winter shutdown site there is still potential for severe erosion of the area from weather events. Erosion controls can fail, leaving the site vulnerable to storms. It is important to inspect the site monthly for damage and to perform maintenance on the erosion controls when necessary.

Consult the Winter Shutdown Section of your RIDOT SESC Inspection Report for a full checklist on how to prepare for winter shutdown.



RIDOT work during winter months

Questions? Call the RIDOT Office of Stormwater Management: 401-734-4892

ATTACHMENT 4C - Final Inspections

2024 YEARLY INSPECTION REPORT

CONTRACT	PROJECT NAME /LOCATION	FINAL INSPECTION	PTSID	*NOTES*
2019-092-CH	RI-138A, Aquidneck Avenue (East Main Road to Green End	8/1/2024	0082U	
2020-015-CB	Bridge Group 10 - I-295, Statewide	7/24/2024	0013R	
2020-035-CB	Bridge Group 13B - Route 146 - Contract 2, North	10/1/2024	0031Z	*Partial*
2020-037-CB	Bridge Group 35 - I-295 Putnam Pike, Smithfield	8/8/2024	0016N	
2020-065-CH	Pell Bridge Ramps - Phase 2, Newport	8/9/2024	0050B	*Partial*
2020-065-CH	Pell Bridge Ramps - Phase 2, Newport	2/23/2024	0050B	*Partial*
2020-065-CH	Pell Bridge Ramps - Phase 2, Newport	10/9/2024	0050B	
2021-012-CB	Bridge Group 59C - Reservoir Avenue RR, Providence	10/31/2024	0014N	
2021-032-CM	Providence Street Wall Repairs, West Warwick	1/16/2024	2604H	
2021-032-CM	Providence Street Wall Repairs, West Warwick	4/5/2024	2604H	*Revision?*
2021-051-CH	Airport Connector & Post Road Resurfacing, Warwick	5/30/2024	0074Q	*Landscape*
2022-010-CB	Bridge Group 39 - Route 146, Lincoln/North Providence	5/2/2024	0016R	*Partial*
2022-015-CB	Slope Stabilization - Route 44 & Martin Lot Cemetery, RI Historical Cemetery #31 (963 Putnam Pike), Glocester	7/23/2024	2604V	
2022-023-CM	Warwick Avenue Swales Rehabilitation, Warwick	6/5/2024	0197G	*Nooseneck*
2022-023-CM	Warwick Avenue Swales Rehabilitation, Warwick	6/5/2024	0197G	*Victory Hwy.*
2022-023-CM	Warwick Avenue Swales Rehabilitation, Warwick	7/18/2024	0197G	*Mendon*
2022-024-CH	Interstate Resurfacing (I-95 & I-295),	1/26/2024	2605G	
2022-024-CH	Interstate Resurfacing (I-95 & I-295),	3/14/2024	2605G	*not thru Finals*
2022-028-CS	2022 DMS Replacement Project, Warwick	7/30/2024	2605T	
2022-036-CB	On-Call Contractor General Bridge Pres Task Order Program - NEBB	1/18/2024	1600D	
2022-036-CB	On-Call Contractor General Bridge Pres Task Order Program -	1/4/2024	1600D	*not thru Finals*
2022-036-CB	On-Call Contractor General Bridge Pres Task Order Program -	12/16/2024	1600D	
2022-047-CT	HSIP Intersection & Crosswalks, East/South 2022,	1/17/2024	2604P	
2022-050-CB	Bridge Group 45B_H - Kings Factory (Re-Advertised),	5/3/2024	2606B	
2022-053-CT	Route 138 & 112 Roundabout, Richmond	11/14/2024	0102R	
2022-055-CB	2022 Bridge Preservation Program, Statewide	12/19/2024	1500B	*Partiai / Cancelled*
2022-056-CT	Pawtucket Bridge Lighting & Bridge Detection System, Pawtucket	3/12/2024	2605W	
2022-057-CT	HSIP Intersection & Crosswalks North/Central, Burrillville/Lincoln	7/10/2024	2606R	*2 X-tra Wks.per ADA*
2022-060-CM	Drainage Ponds Rehabilitation, East Greenwich/North	6/10/2024	0197P	
2022-060-CM	Drainage Ponds Rehabilitation, East Greenwich/North	5/24/2024	0197P	*Basin #7*
2022-063-CB	CONTRACT NOT ETNERED	7/18/2024		*Partial*
2023-001-CT	2023 Pavement Striping - North, Statewide	6/14/2024	2606S	
2023-002-CT	Striping - East Bay, Statewide	9/18/2024	2606T	
2023-003-CR	Paver Placed Elastomeric Surface Treatment C-1, Statewide	3/14/2024	2606N	
2023-007-CL	Airport Connector Landscaping, Warwick	6/27/2024	2606L	
2023-012-CT	HSIP Intersection & Crosswalks 2023,	11/26/2024	2605Y	
2023-016-CM	Quacket Creek Culvert Repairs, Tiverton	11/20/2024	2606D	
2023-020-CM	Conanicus Seawall Repair, Jamestown	5/20/2024	2607G	
2023-023-CH	Pavement Improvements - Mendon Road, Woonsocket	12/30/2024	2606U	
2023-024-CH	Washington Secondary Bike Path Resurfacing,	12/11/2024	0026Q	*Interim*
2023-025-CB	High-Priority Steel Repairs I-95 & Route 37,	5/15/2024	2607K	

2024 YEARLY INSPECTION REPORT

CONTRACT	PROJECT NAME /LOCATION	FINAL INSPECTION	PTSID	*NOTES*
2023-025-CB	High-Priority Steel Repairs I-95 & Route 37,	3/26/2024	2607K	
2023-025-CB	High-Priority Steel Repairs I-95 & Route 37,	5/15/2024	2607K	*not thru Finals*
2023-030-CH	Pavement Improvements - Putnum Pike & Reservoir Ave.,	10/8/2024	2605N	
2023-031-CM	Route 37 Sediment Management Facility, Warwick	11/25/2024	0197T	
2023-038-CT	IDIQ Traffic Signal Improvements - Rossi - Task Order/Work Order	10/4/2024	1601C	
2023-038-CT	IDIQ Traffic Signal Improvements - Rossi - Task Order/Work Order	8/22/2024	1601C	*Partial, TO#1*
2023-040-CT	2024-2025 Pavement Striping - Central, Statewide	12/4/2024	0116W	*Partial*
2023-041-CT	2024-2025 Pavement Striping - Limited Access Highways,	8/9/2024	0116X	*Phase 1*
2023-042-CT	2024-2025 Pavement Striping - South, Statewide	12/23/2024	0116Y	
2023-051-CT	CONTRACT NOT ETNERED	9/12/2024		
2023-052-CT	IDIQ Traffic Signal Improvements - NEBB	10/11/2024	1602B	*per Barry more time*
2023-054-CB	Type 1 Emergency Replacement of Wellington Avenue Bridge	5/14/2024	2607X	*2nd Inspection*
2023-063-CB	I-195 Emergency	7/18/2024	1600N	
2024-006-CH	Pavement Improvements - JAM Resiliency, Jamestown	8/30/2024	2606Z	
2024-008-CR	2024 Pavor Placed Elastomeric Surface Treatment C-1, Statewide	11/12/2024	2607A	
2024-009-CR	2024 Rubberized Asphalt Chip Seal - C-1, Statewide	12/12/2024	2607B	
2024-014-CH	Emergency Repairs to US Rt.6 Westbound slope Embarkment near Pedestrian Bridge - Bid Proposal, Providence	1/4/2024	2608J	
2024-021-CH	Pavement Improvements - Route 4, East Greenwich/North	12/3/2024	2608F	
2024-029-CR	2024 Crack Sealing C-1 (Re-Advertised), Statewide	10/4/2024	2608W	
2024-037-CH	Emergency Repairs Block Island Corn Neck Road & Spring Street,	11/18/2024	2609B	*Emergency Contract!*
2024-049-CM	Type 1 Emergency Declaration - Woonsocket Depot Wall	10/16/2024	2609E	

ATTACHMENT 6A - Fall Stabilization/Winter Shutdown

From: Orr, James (DOT) <james.orr@dot.ri.gov>
Sent: Tuesday, November 19, 2024 11:17 AM
To: Hamilton, Heather (DOT) <heather.hamilton@dot.ri.gov>; Bailey, Lawrence (DOT) <lawrence.bailey@dot.ri.gov>; DeGiovanni, Paul (DOT) <paul.degiovanni@dot.ri.gov>; Pezzullo, Jon (DOT) <jon.pezzullo@dot.ri.gov>; Roberts, Herbert (DOT) <herbert.roberts@dot.ri.gov>; Pisaturo, Richard (DOT) <richard.pisaturo@dot.ri.gov>; Tella, Gary (DOT) <gary.tella@dot.ri.gov>
Cc: Wentzell, Nicholas (DOT) <Nicholas.Wentzell@dot.ri.gov>; Richardson, Alisa (DOT) <alisa.richardson@dot.ri.gov>
Subject: RE: Fall Construction Site Stabilization

All

Please see below & have contractors stabilize their sites in accordance with the contracts

Thx
jo

From: Wentzell, Nicholas (DOT)
Sent: Monday, October 7, 2024 3:10 PM
To: Orr, James (DOT) <james.orr@dot.ri.gov>; Bailey, Lawrence (DOT) <lawrence.bailey@dot.ri.gov>
Cc: Hamilton, Heather (DOT) <heather.hamilton@dot.ri.gov>; Richardson, Alisa (DOT) <alisa.richardson@dot.ri.gov>; Baker, Joseph (DOT) <joseph.baker@dot.ri.gov>
Subject: Fall Construction Site Stabilization

Good afternoon Jimmy and Larry,

This is a reminder to project teams regarding seeding and stabilization deadlines. Please forward to all Project Managers and Resident Engineers.

Two important dates:

- All disturbed soils must be seeded by **October 15**
- Any areas which do not have adequate vegetative stabilization by **November 15** must be stabilized through the use of non-vegetative erosion control measures.

The attached Soil Stabilization Fact Sheet has useful information regarding these deadlines. SWPPP reports and maintenance of erosion & sediment controls should continue as usual and these requirements do not have a winter shutdown period, per RIDOT Specs. Contractors must honor those portions of the contracts regardless of the “shutdown”.

As always, please reach out to the NRU with questions or concerns.

Thank you,

Nick Wentzell
Senior Environmental Scientist
RI Department of Transportation
Environmental Division – Natural Resources Unit (NRU)
360 Lincoln Avenue, Warwick, RI 02888
O: 401-921-1777
E: Nicholas.Wentzell@dot.ri.gov
NEW! www.dot.ri.gov/**EnvironmentalDivision**

ATTACHMENT 6B - Winter Shutdown

From: DOT SWPPP
To: Torres, Denzel (DOT); Pezzullo, Jon (DOT); Alani, Yasser (DOT); Coffland, Daniel (DOT); Cimaglia III, Anthony (DOT); DeGiovanni, Paul (DOT); Lewry, Nicholas (DOT); Coutu, Ryan (DOT); Pisaturo, Richard (DOT); Pinderhughes, Lloyd (DOT); Molis, Joseph (DOT); Tella, Gary (DOT); Paesano, Richard (DOT); German, Raymon (DOT); Lindo, Robert (DOT); Lonardo, John (DOT); Andrews, Jr, Gentry (DOT); Boisclair, Leo (DOT); Roberts, Herbert (DOT); Murphy, Donald (DOT); Studley, Michael (DOT); Saracino, Steven (DOT); Raposa, David (DOT); DeRensis, Anthony (DOT); Blanco, Owen (DOT); Sullivan, Emily (DOT); O"Connell, John (DOT); Laurie, William (DOT); Rodriguez, Diana (DOT); Shaw, Christopher (DOT); Jeffrey Benoit; Sapegin, Veronica (DOT); Animashaun, Lateef (DOT)
Cc: Jones, Trevor (DOT); Whelan, William (DOT); Orr, James (DOT); Bailey, Lawrence (DOT); Richardson, Alisa (DOT); Hamilton, Heather (DOT)
Subject: Winter Shutdown SWPPP Requirements
Date: Monday, November 25, 2024 11:15:00 AM
Attachments: image001.png
ConstructionSiteFactSheet_08_WinterShutdown.doc.pdf
ConstructionSiteFactSheet_01_EandS.pdf
ConstructionSiteFactSheet_05_SoilStabilization.pdf
ConstructionSiteFactSheet_06_SESCinspection.pdf
ConstructionSiteFactSheet_09_CorrectiveActions.pdf

Good morning,

Winter shutdown begins on 12/15/2024. Please review the below guidance regarding winter SWPPP requirements.

Projects with winter shutdown:

1. **Stabilize all disturbed areas**
    - Stabilize with non-vegetative measures such as heavy mulch, rolled erosion control products, etc. (since we are past the 11/15 date where stabilization needed to be established).
2. **Continue submitting SWPPP inspection reports**
    - There is no shutdown period for SWPPP inspections and maintenance.
    - Reduced inspection schedules are possible depending on weather and site conditions. Contact dot.swppp@dot.ri.gov to determine a reduced schedule.
3. **Continue performing corrective actions**
    - Corrective actions should be addressed within one (1) calendar day of discovery of the issue.

Projects without winter shutdown:

1. **Stabilize all disturbed areas within 5 working days of finishing work in that area**
    - Erodible soil must be re-stabilized with non-vegetative measures (heavy mulch, rolled erosion control products, etc.) within 5 working days.
2. **Continue submitting SWPPP inspection reports**
    - There is no shutdown period for SWPPP inspections and maintenance.
    - Certain project areas may be omitted from inspection reports depending on weather and site conditions. Contact dot.swppp@dot.ri.gov to determine a reduced schedule.
3. **Continue performing corrective actions**
    - Corrective actions should be addressed within one (1) calendar day of discovery of the issue.

Please reach out to RIDOT's Natural Resource Unit (NRU) if you have any questions or concerns at

dot.swppp@dot.ri.gov.

Thank you,

Nick Wentzell
Senior Environmental Scientist
RI Department of Transportation
Environmental Division – Natural Resources Unit (NRU)
360 Lincoln Avenue, Warwick, RI 02888
O: 401-921-1777
E: Nicholas.Wentzell@dot.ri.gov
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RHODE ISLAND DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE MAINTENANCE DIVISION
CATCH BASIN SEDIMENT AND STREET SWEEPING MATERIAL MANAGEMENT PLAN

State Facilities and Roadways
Rhode Island

1.0 INTRODUCTION

This *Material Management Plan* (MMP) has been prepared by GZA GeoEnvironmental, Inc. (GZA) on behalf of the Rhode Island Department of Transportation Highway and Bridge Maintenance Division (RIDOT) for the management of catch basin cleanings, sediment and street sweepings generated by associated highway maintenance activities throughout the State of Rhode Island.

1.10 BACKGROUND

This MMP applies to statewide RIDOT drainage system maintenance activities, including street sweeping, catch basin cleaning, drainage pipe cleaning, outfall cleaning and sediment removal/dredging of stormwater treatment units (STUs).

2.00 MATERIAL MANAGEMENT

This section of the *MMP* has been prepared to establish procedures that will be followed during maintenance activities to manage collected sand/gravel, sediment, organics, debris and litter / solid waste generated from maintaining the RIDOTs Statewide stormwater management systems and State Highway street sweeping program (conducted directly by RIDOT and by RIDOT's subcontractors). We anticipate the primary sources of these materials will be as follows:

- Street Sweepings
- Catch Basins and Manholes
- Stormwater Conveyance Piping
- Stormwater Outfalls
- Stormwater Management Ponds and Swales (STUs)
- Other Stormwater Management Best Management Practice Devices

2.10 SEDIMENT MANAGEMENT GUIDELINES

The following sediment management guidelines were developed for each of the maintenance activities involving sediment collection. The procedures will apply to sediment collection, stockpiling, transportation, storage, management and disposal procedures.

GZA
Proactive by Design
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

2.10.1 Street Sweepings

Street sweeping activities will be conducted with mechanical street sweeper that utilizes water to reduce dust generation and collects material into an onboard hopper via suction or collection via broom. During street sweeping operations, large debris present in the roadway (tree debris, car parts and solid waste etc.) will be manually collected prior to sweeping and disposed at licensed disposal facilities. Tree branches and wood debris should be separated from solid waste materials and processed into wood chips or recycled at a licensed composting facility. Tree debris, car parts and solid waste should not be intermixed with street sweeping materials. Material collected from street sweeping operation is primarily sand associated with highway winter operations.

When the hopper is full, the sweeper will empty its hopper into a dump truck for transportation to a RIDOT material management facility (MMF). The truck will off load the material at the RIDOT MMF in a dedicated material storage area for street sweepings. This storage area will be serviced by a water collection and treatment system consisting of a forebay and bioretention or sand filtration system to manage water discharges from the storage area. Note that material collected from street sweepings is typically not saturated.

The street sweeper may also directly transport collected sediment to one of RIDOT's MMFs.

2.10.2 Catch Basin, Manholes and Stormwater Conveyance Piping

Sediment and debris removal from catch basins, manholes and stormwater conveyance piping will be collected utilizing a vacuum truck equipped with a vacuum hose or sediment removal truck equipped with a drop bucket. For pipe jet and vacuum cleaning, a jet nozzle is inserted from the downstream end of the pipe. As the nozzle moves up the pipe, sediment will flow into the downgradient catch basin or manhole and will be collected via the vacuum hose. Material collected from the hose will be stored in the vacuum truck tank. Once the tank is full, the truck will transport collected sediment to a RIDOT material management facility. Catch basins and manholes will be cleaned via suction and will only be jetted as necessary to loosen material. Alternative cleaning method for catch basins and manhole structures may include sediment removal via a drop bucket. A drop self-closing / clam shell bucket is dropped from a work truck into the structure. When the bucket is retrieved the bucket closes to retain sediment. The bucket is emptied into a storage hopper on the truck or into a support dump truck equipped with a watertight dump body.

During maintenance operations, large debris present in the structures or drainage piping (tree debris, car parts, solid waste etc.) should be removed, and disposed of at licensed disposal facilities. Tree branches and wood debris should be separated from solid waste materials and processed into wood chips or recycled at a licensed composting facility. Tree debris, car parts and solid waste should not be intermixed with sediment and should be managed separately. Material collected from these structures and pipe sections is primarily sand, organics and associated highway debris (litter, tree branches, wood debris, etc.).

When vacuum and drop bucket trucks are full of sediment, the material will be transported to a RIDOT MMF. The trucks will off load the material at the RIDOT MMF in a dedicated material storage area for catch basin, manhole and drainage pipe sediment. This storage area will be serviced by a water collection and treatment system consisting of a forebay and bioretention or sand filtration system to manage water discharges from the storage area.

2.10.3 Stormwater Outfalls and Stormwater Management Ponds and Swales (STUs)

Sediment and debris that accumulates at pipe outfalls and STU bottoms will be removed via excavation. Prior to excavating accumulated sediment, large debris observed at the outfall or STU (tree debris, car parts and solid waste, etc.) should be removed and disposed of at licensed disposal facilities. Vegetation should also be separated from accumulated sediments and be chipped/placed on site outside of the STU or recycled at a licensed composting facility. Tree branches and wood debris should be separated from solid waste materials and processed into wood chips or recycled at a licensed composting facility. Tree debris, car parts and solid waste should not be intermixed with sediment and should be managed separately. Riprap can be separated and left on site or reused at other RIDOT facilities.

Prior to sediment removal, temporary erosion and sediment controls consisting of a staked turbidity barrier (if the STU contains a significant amount of water) or a staked line of erosion controls (straw wattles, etc.) will be installed around the area to be excavated to prevent sediment from migrating from the outfall or STU while executing the work. The turbidity barrier/erosion controls will be installed in accordance with manufacturer's specifications and maintained and replaced during the work as necessary.

Standing water may be observed at certain STUs. These STUs should be dewatered prior to sediment removal, via either a gasoline or diesel-powered centrifugal pump or an electrical submersible pump. The dewatering pump will discharge through a silt bag to remove sediment prior to discharging the water to the STU outfall. Straw wattles and a staked turbidity barrier should be installed down gradient of the filter bag at the outfall area prior to initiating dewatering operations.

Following debris removal, STU dewatering and implementation of temporary erosion controls, accumulated sediment will be excavated and stockpiled onsite to allow the material to dewater to the extent practical. Excavated material will primarily consist of sand, gravel and organics. Sediments will be placed directly into a temporary onsite dewatering basin located adjacent to the outfall or STU. Dewatering basins could also be implemented directly in the STU.

The temporary dewatering basin shall be constructed by placing rows of straw wattles around the downgradient perimeter of the stockpile area. The dewatering basin configuration should allow free flowing water generated from the sediment stockpile area to discharge to the STU or outfall area. The performance of the straw wattles will be observed to confirm that sediment is not being transported beyond the dewatering area. When free water is no longer observed to discharge from the sediment stockpile, dewatered sediments shall be loaded and transported directly to a RIDOT MMF. The trucks will offload at the MMF in a dedicated material storage area for outfall and STU sediment. This storage area will be serviced by a water collection and treatment system consisting of a forebay and bioretention or sand filtration system to management water discharge from the storage area.

Note: If the areas to be excavated cannot be reached by heavy equipment staged adjacent to the STU, timber mats or load mats will be installed to access the outfall area or STU impoundment. The timber mats will provide a stable operating platform for the excavator and associated support equipment and prevent rutting of the outfall and STU embankment/STU bottom areas. All rutting or damage to these structures should be repaired immediately. Bottom areas of infiltration STUs should be scarified and reseeded immediately following the completion of maintenance activities to restore infiltration capacity.

2.10.4 Material Transportation

Materials generated as part of Stormwater infrastructure maintenance shall be transported off-site in covered dump bodies, trailers or self-contained hoppers. No sediment will be transported on public roadways without being securely covered. Trucks/trailers will be brushed down to remove residual soils in a designated area prior to entering roadways. RIDOT will take necessary actions to ensure soil leaving the Site will be dry enough not to leak water from the container during transport or will be transported in water resistant truck bodies

2.10.5 Temporary Material Storage / Staging Areas

In situations where materials will be staged on-site for multiple workdays prior to transport to a RIDOT MMF, the temporary material storage location will be selected to limit the unauthorized access to the materials (*i.e.,* away from public roadways/walkways).

Stockpiled materials will be covered with two layers of minimum 6 mil polyethylene sheeting. The polyethylene sheets should overlap by a minimum of 36-inches and be anchored with sandbags or other adequate anchoring materials. Stockpiled materials will be maintained with appropriate controls to limit the loss of the cover, prevent precipitation from contacting the material and protect the stockpile from stormwater erosion. The stockpiles shall be surrounded by staked hay bales or straw wattles. Soil stockpiles shall be inspected at the end of each workday. Any tears or punctures observed in the polyethylene sheeting covering will be repaired immediately.

Depending on the volume of material involved in the project, materials may also be temporarily stockpiled in roll-off containers. These containers will be covered at the end of the day with a tarp(s) secured in place.

2.10.6 RIDOT Material Management Facilities (MMF)

Materials removed from street sweeping, catch basin and manhole cleaning, drainage pipe cleaning, outfall cleaning and STUs will be transported and stockpiled at RIDOT MMFs. At these facilities, materials will be stockpiled within concrete block bins or other types of containment structures. A water management facility will be established for each MMF. At the MMFs, observed solid waste and debris will be handpicked and removed from the material stockpiles. Each RIDOT MMF will operate under a facility specific Stormwater Management Plan. The list of current proposed RIDOT MMFs are as follows:

- Route 37 – 98 Jefferson Blvd, Warwick (proposed conceptual design plans attached).

2.10.7 Sediment Disposal

On an annual basis, or as needed, sediment will be hauled from the RIDOT MMFs to the Central Landfill for use as alternate cover. RIRRC does not require analytical testing of RIDOT's street sweepings and catch basin cleanings. If in the future RIRRC requires analytical testing, typical testing requirements shall include the following parameters at a frequency of one sample per one thousand tons of material:

- Volatile Organic Compounds (VOCs) via EPA Method 8260B
- Semi-VOCs via EPA Method 8270C
- Polychlorinated biphenyls (PCB)s via EPA Method 8082
- Total Petroleum Hydrocarbons (TPH) via EPA Method 8100M

- RCRA 8 Metals (As, Ba, Cd, Cr, Pb, Hg, Ag & Se) via EPA Method 6010/7471
- Reactivity (cyanide & sulfide) via EPA Method 7.3.3/7.3.4
- pH and Flashpoint via EPA Methods 150.1 and 1010
- TCLP Metals (if total metals result exceeds the EPA 20x Rule) via EPA Method 1311/6010

2.10.8 Dust Control

Work at the Work sites and MMFs must comply with applicable federal, state and local regulations, including Section 5 of the RIDEM Air Pollution Regulations. Dust suppression techniques must be initiated and maintained during periods when visible windblown dusts are generated at the Work Site or at the material stockpile staging area. All reasonable precautions must be taken to prevent the excessive generation of dust during soil excavation, stockpiling, loading, trucking and other soil handling activities. If excessive dust generation occurs, RIDOT shall mitigate the dust emissions through appropriate means, such as the application of water, or covering soil stockpiles with sheeting.

Attachments: RIDOT MMF Locus Plan
Temporary Erosion Control Details
Temporary Material Dewatering Basin Detail
Dewatering Silt Bag Specification
6 Mil Polyethylene Specification
Proposed Conceptual Route 37 Material Management Facility Design Plans

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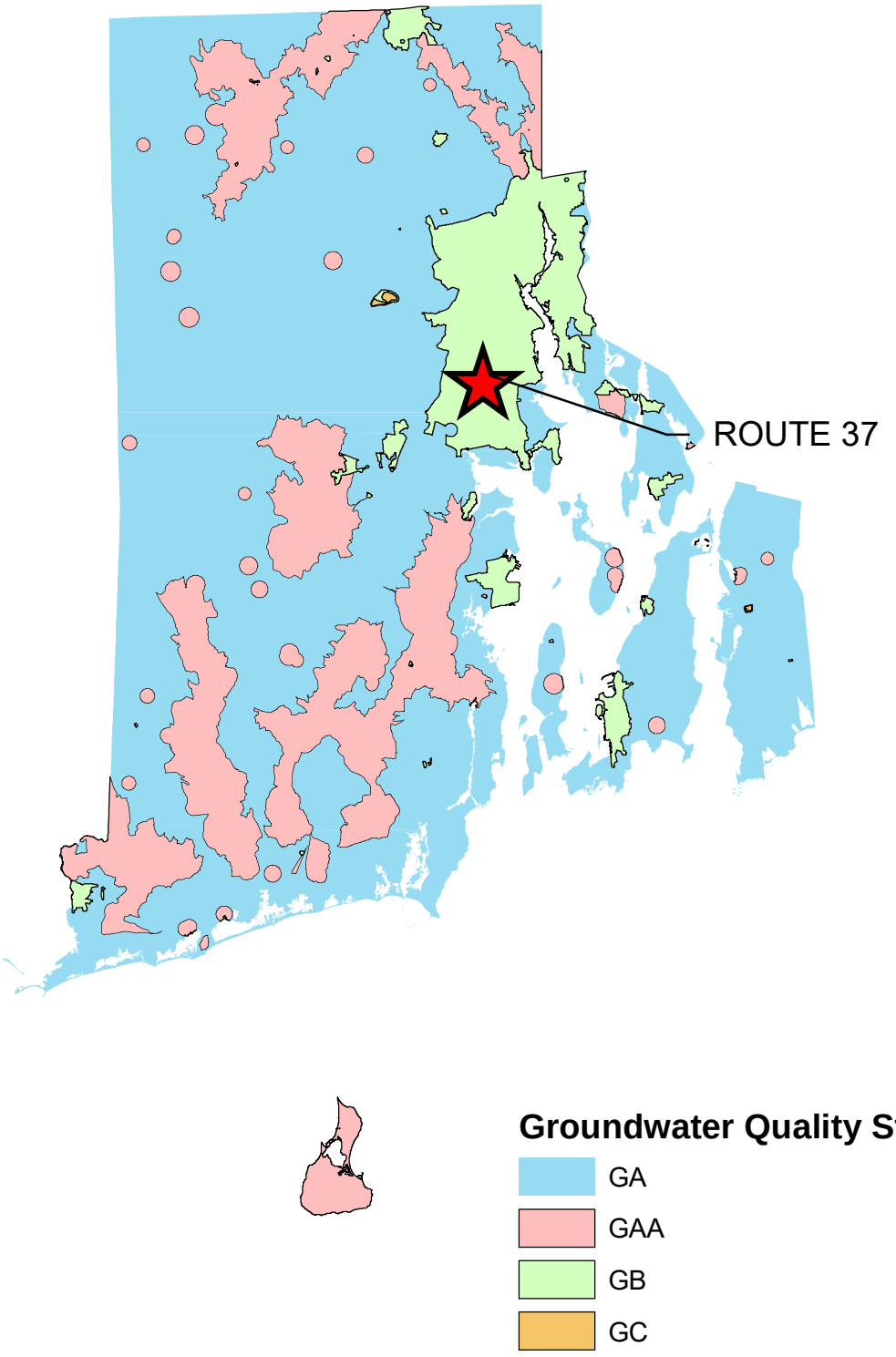

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CONCEPTUAL MATERIAL MANAGEMENT AREA
98 JEFFERSON BLVD
WARWICK, RHODE ISLAND

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR: RI DOT

LOCUS

PROJ MGR: RAD	REVIEWED BY: RAC	CHECKED BY: TRG	FIG
DESIGNED BY: RAD	DRAWN BY: CMC	SCALE:	
DATE: February 14, 2020	PROJECT NO: 34634	REVISION NO:	1

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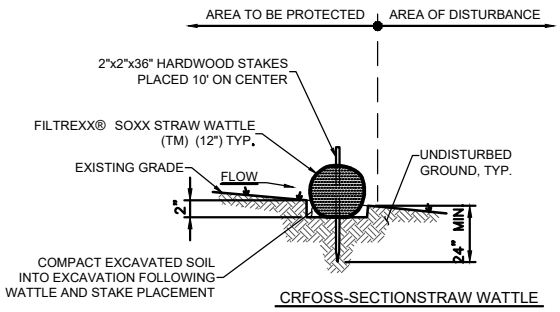
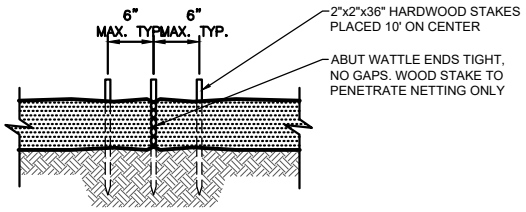


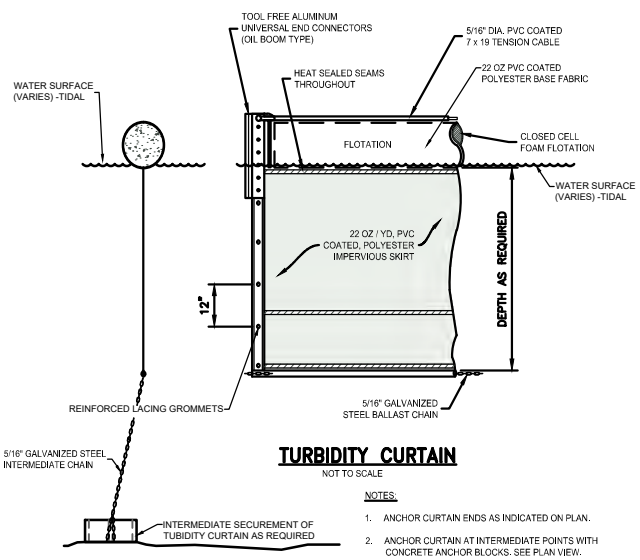
CRFOSS-SECTIONSTRAW WATTLE



STRAW WATTLE OVERLAP

STRAW WATTLE DETAIL

NOT TO SCALE

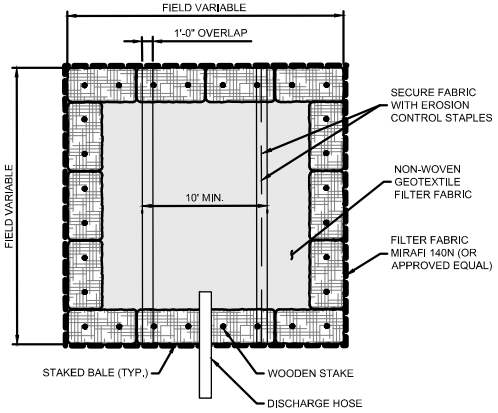


TURBIDITY CURTAIN

NOT TO SCALE

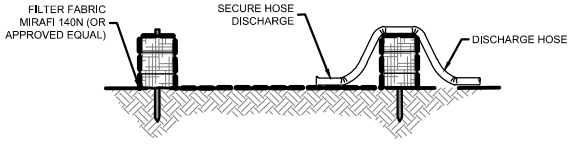
NOTES:

1. ANCHOR CURTAIN ENDS AS INDICATED ON PLAN.
2. ANCHOR CURTAIN AT INTERMEDIATE POINTS WITH CONCRETE ANCHOR BLOCKS. SEE PLAN VIEW.



PLAN VIEW

NOT TO SCALE

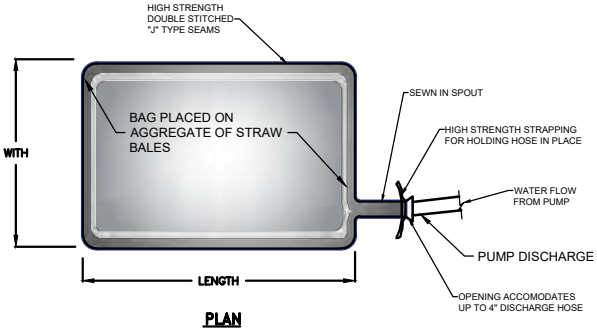


CROSS-SECTION

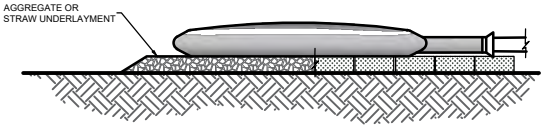
NOT TO SCALE

DEWATERING BASIN

(SMALL SCALE)



PLAN



ELEVATION

DETAIL DEWATERING SILT BAG: (DIRTBAG® OR EQUIVALENT

NOT TO SCALE

© 2015 – GZA GeoEnvironmental, Inc. GZA–J:\ENV\34634.RAC\FIGURES\CAD\DWGS\SEDIMENT MANAGEMENT PLAN.DWG 8.5X11–DETAILS (1 OF 1) MARCH 11, 2020 CARL BERGDEN

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NO.	ISSUE/DESCRIPTION	BY	DATE

98 JEFFERSON RD.
WARWICK, RHODE ISLAND

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
RI DOT Driven to get you there

CONCEPTUAL MATERIAL MANAGEMENT AREA - DETAILS

PROJ MGR: RAD	REVIEWED BY: RAC	CHECKED BY: TRG	FIGURE 1
DESIGNED BY: RAD	DRAWN BY: CMC	SCALE: AS SHOWN	
DATE: MARCH, 2020	PROJECT NO. 34634	REVISION NO. 0	SHEET NO. 1 of 1

DIRTBAG®
DEWATERING BAG

SEDIMENT AND PERIMETER CONTROL

FILTERS SILT, SAND, AND FINES OUT OF PUMPED WATER

Dirtbag dewatering bags remove silt, sand, and other debris from pumped water on construction sites, ponds, dredging locations and more.

The bag easily connects to a pump discharge hose using the 4" neck and sewn in attachment straps. To increase the effectiveness of Dirtbag's filtration system, ACF Environmental recommends placing the product on a bed of hay bales or aggregate to maximize water flow through the surface area of the bag. Doing so also helps protect the surrounding area from erosion, sediment displacement and the pollution of receiving waters. Under most circumstances, a 15x15 Dirtbag can pass up to 500 gallons of water per minute.



USE GUIDELINES:

- **Dirtbag must be monitored at all times during use (over-filling may cause rupture)**
- Flow and removal rates vary based on particle size/ sediment composition
- To increase flow rate place Dirtbag on aggregate, straw bales, or other porous surfaces
- Dirtbag is full when it can no longer efficiently pass water at a reasonable rate



ADVANTAGES:

- High flow rate
- 15' x 15' Dirtbag is rated up to 500 GPM pump
- Built-in neck receives up to 4" discharge hose
- Removes sediment, trash, and debris
- Economical alternative to other methods
- Custom sizes available upon request

9.19

Full product specifications are available on the Dirtbag product page at www.acfenvironmental.com

SPECIFICATIONS

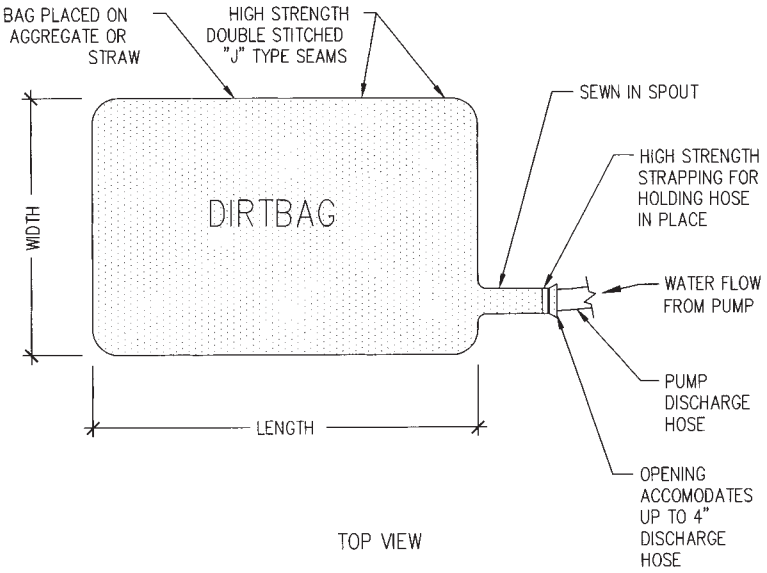
Dirtbag sizes include: 4' x 6' | 5' x 5' | 8' x 10' | 10' x 10' | 15' x 15' | and custom sizes on request

PROPERTY	TEST METHOD	MARV
Weight	ASTM D3776	8 oz/yd
Grab Strength (Tensile)	ASTM D4632	205 lbs
CBR Puncture	ASTM D6241	525 lbs
UV Resistance	ASTM D4355	70%
Apparent Opening Size (AOS)	ASTM D4751	80 US std. sieve
Flow Rate	ASTM D4491	90 gal/min/ft^2
Permittivity	ASTM D4491	1.4 sec^{-1}

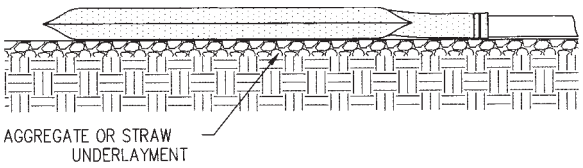
Dirtbag® seam test results (ASTM D4884)

NONWOVEN DIRTBAG	WOVEN DIRTBAG
Maximum load 786 lbs	Maximum load 934 lbs
Maximum strength 1178 lb/ft	Maximum strength 1402 lb/ft

NOTE: Each test result was derived from a material failure rather than a stitch failure.



TOP VIEW



SIDE VIEW

Testing Details:

Dirtbag has been tested under ASTM D-7880 and ASTM-7701. These are standard test methods for determining flow rate of water and suspended solids retention from a closed geosynthetic bag. Testing summary available upon request.

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LET'S GET IT DONE
800.448.3636
acfenvironmental.com

DISCLAIMER: Use of dewatering bags is a standard construction method throughout the U.S. ACF Environmental in not liable for any damage caused by rupture or over-filling of Dirtbag. If Dirtbag fails to fully pass pumped water, turn off pump and contact ACF Environmental at 800-448-3636.



Poly-America

CONSTRUCTION SHEETING

Poly-America's construction sheeting is made from polyethylene which provides optimum in economy and performance. Because of its good weatherability, chemical inertness and toughness, Poly-America's polyethylene sheeting has successfully been used for over 30 years in a wide variety of applications. Thickness ranges from as little as 0.3 mil (8 µm) for paint drop cloths to 100 mil (2.5 mm) or use as landfill liners. Widths range up to 40 ft (12 m). If you have a special application or need more information on our products, contact your area sales representative.

Poly-America's standard sheeting will meet or exceed the following standard technical specifications:

CONSTRUCTION SHEETING

Commercial Item Description A-A-3174 Plastic Sheet, Polyolefin
Type 1
Class 1
Grade A or B
Finish 1

ASTM C171 Standard Specification for Sheet Materials Used for Curing Concrete

ASTM D2103 Specification for Polyethylene Film and Sheeting
Standard Classification 12230

Note: If requested, custom sheeting can be made to meet the following classifications:

12130 13130 13230 12330 13330

ASTM D4635 Standard Specification for Polyethylene Films Made from Low-Density Polyethylene for General Use and Packaging Applications

Type 1
Class 2
Surface 2
Finish 1

ASTM D4397 Standard Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications
(see Table 1 for Impact Resistance and WVTR requirements)

TABLE 1

Thickness	**Dart Impact** ASTM D1709	**WVTR** ASTM E96	**WVTR** ASTM E96	**WVTR** ASTM E96
mils (µm)	g	g/100 sq in-day	perms	metric perms
1(25)	40	1.4	.76	.50
2(51)	85	.7	.38	.25
3(76)	125	.47	.25	.17
4(102)	165	.35	.19	.12
5(127)	205	.28	.15	.10
6(152)	260	.23	.13	.084
7(178)	315	.2	.11	.070
8(203)	370	.18	.096	.063
9(229)	420	.16	.082	.054
10(254)	475	.14	.076	.050

NOTE: The above is for our standard sheeting products. Poly-America will produce custom sheeting products to meet other classifications or specifications. Contact Poly-America to see how we can help you with your needs.

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GENERAL NOTES

1. BASE MAP DEVELOPED FROM FIELD SURVEY CONDUCTED BY GZA PERSONELL ON 12/23/19 USING LEICA GS-16 RTK GPS WITH LCS-35 CONTROLLER.
2. THE FOLLOWING HISTORICAL PLANS WERE ALSO USED IN THE DEVELOPMENT OF THIS PLAN

   -"ROUTE 37 SALT FACILITY" BY GAROFALO AND ASSOCIATES DATED 12/11/02

   -"ROUTE 37 SALT STORAGE FACILITY GENERAL PLAN" BY GAROFALO AND ASSOCIATES DATED 06/27/02
3. WETLANDS FLAGGED BY GZA PERSONELL ON 12/19/19.

LEGEND

- APPROXIMATE PROPERTY LINE
- WETLAND FLAG
- OHW — OVERHEAD TRANSMISSION LINE
- W_X — WATER LINE
- 34' — EXISTING CONTOUR
- EXISTING ASPHALT
- EXISTING TREE/BRUSH LINE

NO.	ISSUE/DESCRIPTION	BY	DATE

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ROUTE 37 FACILITY
98 JEFFERSON RD.
WARWICK, RHODE ISLAND

EXISTING CONDITIONS PLAN

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PREPARED FOR: RIDOT Driven to get you there

PROJ MGR: RAC	REVIEWED BY: RAC	CHECKED BY: MEA	FIGURE 1
DESIGNED BY: RAD	DRAWN BY: CMC	SCALE: AS NOTED	
DATE: MARCH, 2020	PROJECT NO. 34634	REVISION NO.	SHEET NO. 1 OF 3



GENERAL NOTES

1. BASE MAP DEVELOPED FROM FIELD SURVEY CONDUCTED BY GZA PERSONELL ON 12/23/19 USING LEICA GS-16 RTK GPS WITH LCS-35 CONTROLLER.
2. THE FOLLOWING HISTORICAL PLANS WERE ALSO USED IN THE DEVELOPMENT OF THIS PLAN

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   -"ROUTE 37 SALT STORAGE FACILITY GENERAL PLAN" BY GAROFALO AND ASSOCIATES DATED 06/27/02
3. WETLANDS FLAGGED BY GZA PERSONELL ON 12/19/19.

LEGEND

- APPROXIMATE PROPERTY LINE
- WETLAND FLAG
- OHW — OVERHEAD TRANSMISSION LINE
- W_X — WATER LINE
- 34' — EXISTING CONTOUR
- 52' — PROPOSED CONTOUR
- PROPOSED ASPHALT
- EXISTING ASPHALT
- PROPOSED FOREBAY
- PUSH WALL (REINFORCED CONCRETE)
- PROPOSED GUARDRAIL
- PROPOSED WATER QUALITY BASIN FILTRATION BMP
- EXISTING TREE/BRUSH LINE

0 30' 60' 120' 180'
SCALE IN FEET 1" = 60'

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CONCEPTUAL MATERIALS MANAGEMENT AREA

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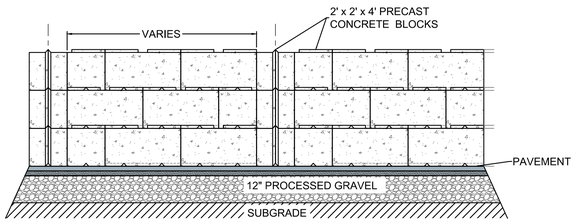
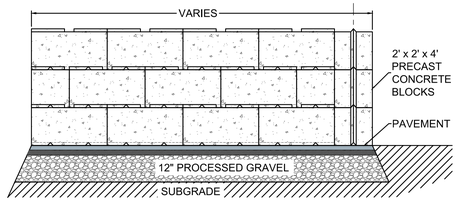
PROJ MGR: RAD	REVIEWED BY: TRG	CHECKED BY: RAC
DESIGNED BY: RAD	DRAWN BY: CMC	SCALE: AS NOTED
DATE: MARCH, 2020	PROJECT NO. 34634	REVISION NO.

FIGURE 2
SHEET NO. 2 OF 3

© 2020 — GZA GeoEnvironmental, Inc. G:\ZA—J:\ENV\34634.RAC\FIGURES\CAD\DWGS\SEDIMENT MANAGEMENT PLAN.DWG PROPOSED SEDIMENT PLAN (2) MARCH 11, 2020 2:04PM CARL BERGDEN



HIGHWAY MATERIAL BIN DETAIL
NOT TO SCALE



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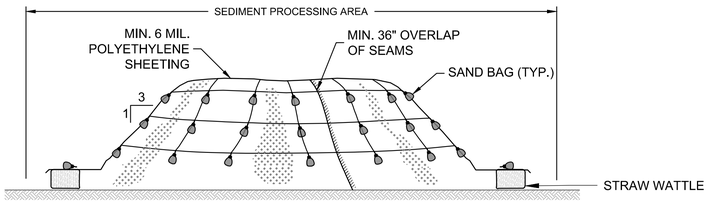

STOCKPILE DETAIL
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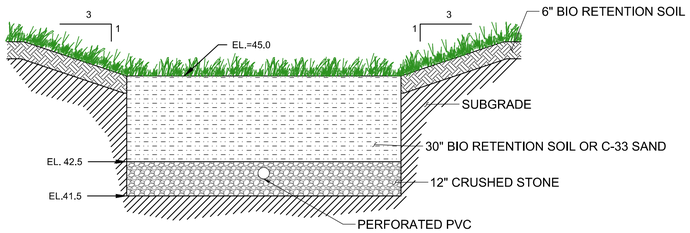

TYPICAL WATER QUALITY BASIN FILTRATION BMP DETAIL
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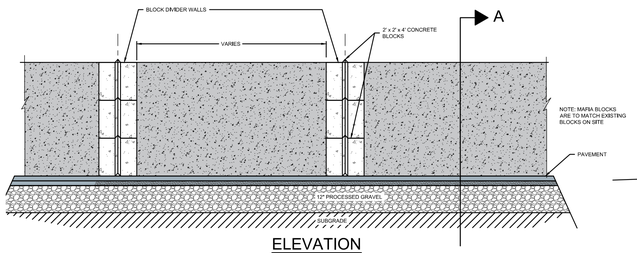
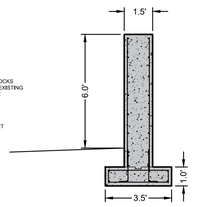


ELEVATION

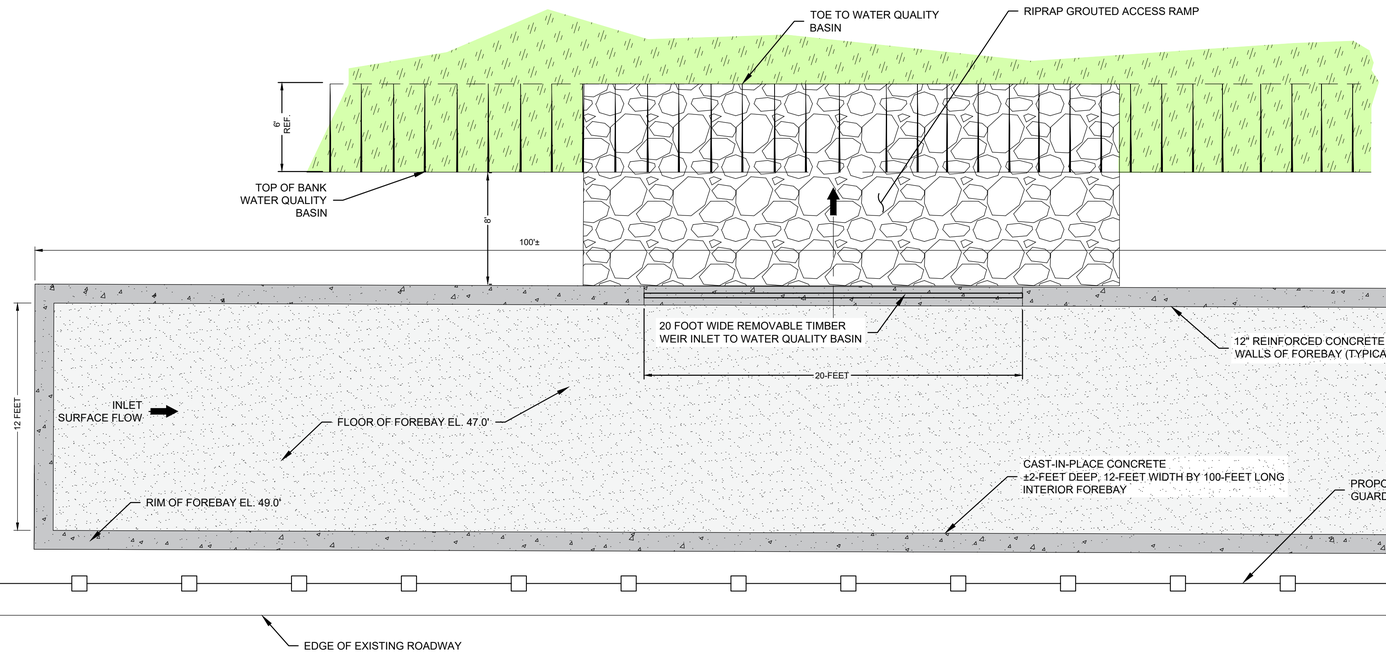


SECTION VIEW A

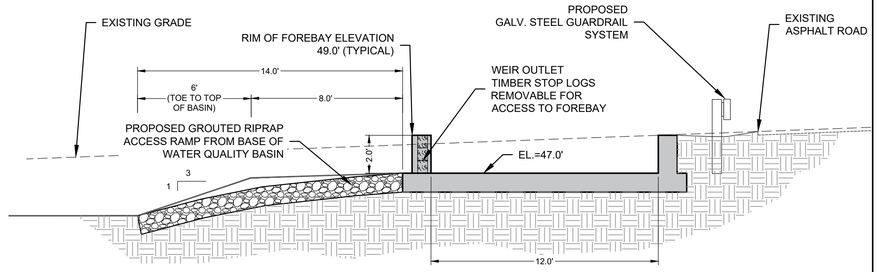
TYPICAL REINFORCED PUSHWALL DETAIL
SCALE: 1"=4'

NOTES:

1. STOCKPILES SHALL BE COVERED WITH MINIMUM 6 MIL POLYETHYLENE SHEETING WHENEVER LOADING, STABILIZATION, OR PLACEMENT IS NOT OCCURRING.
2. STOCKPILE AREAS SHALL BE SUBJECT TO DUST / ODOR CONTROLS WHENEVER LOADING, STABILIZATION, OR PLACEMENT IS OCCURRING AND AS DIRECTED BY ENGINEER. STOCKPILES SHALL BE COVERED WITH POLYETHYLENE WHEN THESE ACTIVITIES ARE NOT BEING PERFORMED.
3. SHEETING COVERING STOCKPILE SHALL BE MAINTAINED TIGHTLY IN PLACE BY USING SAND BAGS ON ROPES WITH A MAXIMUM 10'-0" GRID SPACING IN ALL DIMENSIONS.
4. MINIMUM 36" OVERLAP OF ALL SEAMS REQUIRED.
5. STOCKPILE SIDE SLOPES SHALL BE NO STEEPER THAN 3 (HORIZONTAL) TO 1 (VERTICAL).
6. PLACE STRAW BALE BERMS AS SHOWN ON THE DETAIL ABOVE AROUND STOCKPILES GENERATED OUTSIDE OF THE SEDIMENT PROCESSING AREA.



TYPICAL FOREBAY DETAIL
NOT TO SCALE



TYPICAL FOREBAY CROSS-SECTION
SCALE: 1"=4'

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CONCEPTUAL MATERIALS MANAGEMENT AREA -DETAILS

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PROJ MGR: RAD	REVIEWED BY: TRG	CHECKED BY: RAC	FIGURE 3
DESIGNED BY: RAD	DRAWN BY: CMC	SCALE: AS NOTED	
DATE: MARCH, 2020	PROJECT NO. 34634	REVISION NO.	SHEET NO. 3 OF 3

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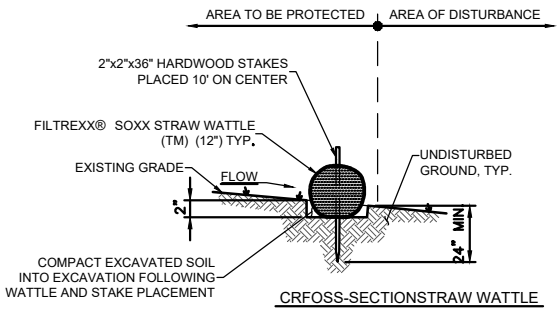
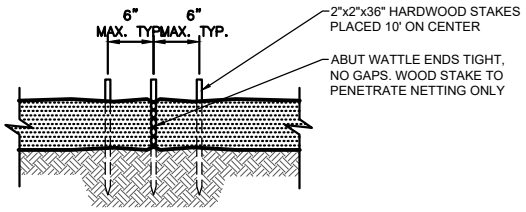


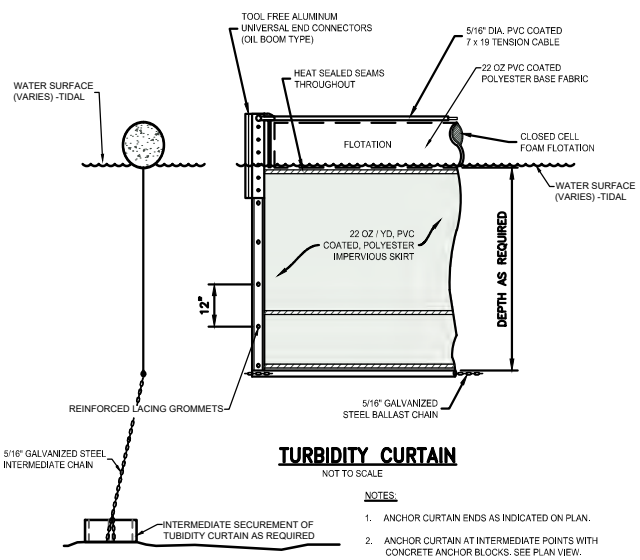
CRFOSS-SECTIONSTRAW WATTLE



STRAW WATTLE OVERLAP

STRAW WATTLE DETAIL

NOT TO SCALE

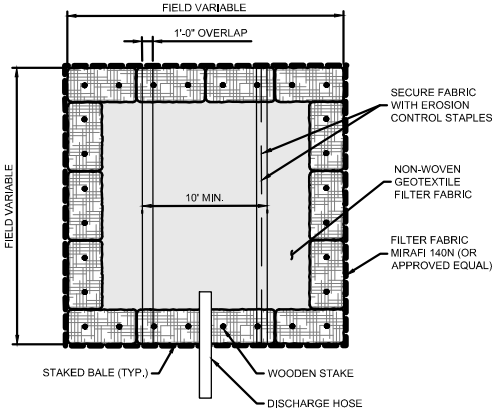


TURBIDITY CURTAIN

NOT TO SCALE

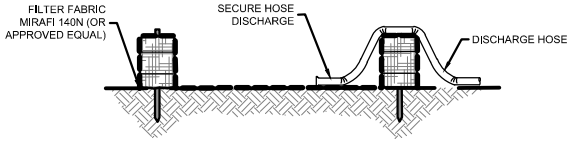
NOTES:

1. ANCHOR CURTAIN ENDS AS INDICATED ON PLAN.
2. ANCHOR CURTAIN AT INTERMEDIATE POINTS WITH CONCRETE ANCHOR BLOCKS. SEE PLAN VIEW.



PLAN VIEW

NOT TO SCALE

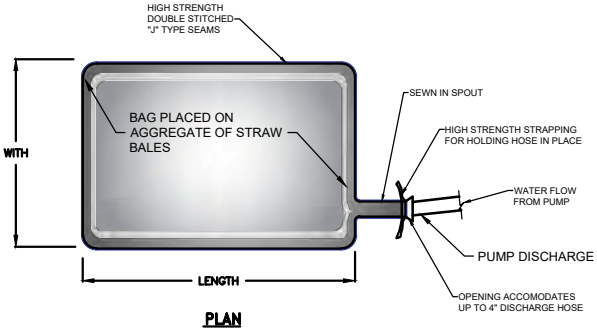


CROSS-SECTION

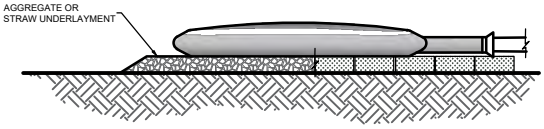
NOT TO SCALE

DEWATERING BASIN

(SMALL SCALE)



PLAN



ELEVATION

DETAIL DEWATERING SILT BAG: (DIRTBAG® OR EQUIVALENT

NOT TO SCALE

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CONCEPTUAL MATERIAL MANAGEMENT AREA - DETAILS

PROJ MGR: RAD	REVIEWED BY: RAC	CHECKED BY: TRG	FIGURE 1
DESIGNED BY: RAD	DRAWN BY: CMC	SCALE: AS SHOWN	
DATE: MARCH, 2020	PROJECT NO. 34634	REVISION NO. 0	SHEET NO. 1 of 1

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF COMPLIANCE AND INSPECTION

IN RE: Rhode Island Department of Transportation

FILE NO.: WP07-106
AAD NO.: 08-008/WRE

CONSENT AGREEMENT

A. INTENT & PURPOSE:

This Agreement is entered by and between the Rhode Island Department of Environmental Management, Office of Compliance & Inspection ("DEM") and the Rhode Island Department of Transportation (the "Respondent"). This Agreement is entered in accordance with Section 42-17.1-2 et seq. of the Rhode Island General Laws ("R.I.G.L.") for the purpose of resolving the administrative enforcement action set forth in a Notice of Violation ("NOV") issued to the Respondent by DEM on August 22, 2008.

B. STIPULATED FACTS:

(1) WHEREAS, the Rhode Island Department of Transportation ("DOT") is the owner and/or operator of property and maintenance support locations or facilities in the following locations (the "Facilities"):

Belleville Facility, North Kingstown; Point Judith Facility, Narragansett; Anthony Road Facility, Portsmouth; West Main Road Facility, Portsmouth; Route 295/Route 6 Facility, Johnston; Cherry Hill Facility, Johnston; Lincoln Facility, Lincoln; Scituate Facility, Scituate; Glocester Facility, Glocester; Hope Valley Facility, Hopkinton; Mid-State Facility, East Greenwich; Charlestown Facility, Charlestown; Clayville Facility, Foster; Little Compton Facility, Little Compton; Route 7/Route 116 Facility, Smithfield; Summit Facility, Coventry; Warren Facility, Warren and Westerly Facility, Westerly.

(2) WHEREAS, the groundwater at each of these Facilities is classified GAA or GA. GAA and GA groundwaters are suitable for public or private drinking water use without treatment.

(3) WHEREAS, the DEM *Rules and Regulations for Groundwater Quality* (the "Groundwater Regulations") require that all road salt or salt/sand mixtures stored over groundwater classified as GAA or GA

be covered with a secure durable waterproof cover. The deadline for complying with this requirement was September 1, 2005.

(4) WHEREAS, the DEM *Regulations for the Rhode Island Pollutant Discharge Elimination System* require that a State owned facility obtain a Rhode Island Pollutant Discharge Elimination System ("RIPDES") permit if the facility has a discharge of storm water associated with industrial activity.

(5) WHEREAS, on or about December 19, 2003, the DEM issued a RIPDES General Permit entitled "*Storm Water Discharges from Small Municipal Separate Storm Sewer Systems and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s*" (the "General Permit").

(6) WHEREAS, the General Permit requires the permittee to enclose or cover by a storm resistant shelter all salt and salt/sand piles to prevent exposure to rain, snow, snowmelt and/or runoff.

(7) WHEREAS, the Respondent submitted to DEM a Storm Water Pollution Prevention Plan ("SWPPP") for the following facilities to comply with the General Permit:

Belleville Facility, North Kingstown; Anthony Road Facility, Portsmouth; Cherry Hill Facility, Johnston; Lincoln Facility, Lincoln; Scituate Facility, Scituate; Glocester Facility, Glocester; Hope Valley Facility, Hopkinton; Mid-State Facility, East Greenwich; Charlestown Facility, Charlestown; Little Compton Facility, Little Compton; Warren Facility, Warren and Westerly Facility, Westerly.

(8) WHEREAS, on August 22, 2008, DEM issued an NOV to the Respondent alleging certain violations of the DEM Groundwater Regulations, the DEM RIPDES Regulations, and the General Permit.

(9) WHEREAS, on September 15, 2008 the Respondent requested an administrative adjudicatory hearing on the NOV.

(10) WHEREAS, on April 28, 2009, the Respondent submitted to DEM a document entitled "*Salt Storage Best Management Practices Indoor Stockpile Revised April 2009*" (hereby incorporated and attached hereto as Exhibit A). Said document describes the standard operating procedures for the management and storage of salt and salt/sand mix piles at the Facilities which have a permanent structure for storage of salt and salt/sand mix piles.

(11) WHEREAS, on May 13, 2009, the Respondent submitted to DEM a document entitled "*Salt Storage Best Management Practices Outdoor*

Stockpile located at West Main Road and Anthony Road Revised April 2009" (hereby incorporated and attached hereto as Exhibit B). Said document describes the standard operating procedures for the management and storage of salt and salt/sand mix piles located at the Anthony Road Facility, Portsmouth and the West Main Road Facility in Portsmouth.

(12) WHEREAS, on May 13, 2009, the Respondent submitted to DEM a document entitled "*Proposed Schedule of Salt Storage Facility Construction May 2009*" (hereby incorporated and attached hereto as Exhibit C). Said document is the project schedule for the construction of permanent structures for storage of the salt and salt/sand mix piles at the Facilities which do not have a permanent structure for storage of salt and salt/sand mix piles.

(13) WHEREAS, in lieu of proceeding to an administrative adjudicatory hearing on the NOV and in order to affect a timely and amicable resolution of the NOV, DEM and the Respondent hereby agree that it is in the best interest of the parties and in the public interest to resolve the disputed issues raised in the NOV.

(14) WHEREAS, DEM finds that this Consent Agreement is a reasonable and fair settlement and adequately protects the public interest in accordance with the DEM Groundwater Regulations and the RIPDES Regulations.

C. *AGREEMENT:*

(1) JURISDICTION – DEM has jurisdiction over the subject matter of this Agreement and has personal jurisdiction over the Respondent.

(2) FORCE and EFFECT – This Agreement shall have the full force and effect of a final administrative order pursuant to the Administrative Procedures Act, R.I.G.L. §42-35-1 et seq. from which no timely appeal was taken, and which is enforceable in Superior Court in accordance with R.I.G.L. §42-17.1-2(21)(v).

(3) APPLICATION – The provisions of this Agreement shall apply to and be binding upon DEM, the Respondent and its agents, servants, employees, successors, assigns and all persons, firms and corporations acting under, through and for the Respondent in the performance of work relating to or impacting the requirements of this Agreement.

(4) CONDITIONS

(a) **Upon execution of the Agreement**, the Respondent shall follow at all times the standard operating procedures described in

Exhibit A for the Facilities that currently have a permanent structure for storage of salt and salt/sand mix piles.

(b) **Upon execution of the Agreement**, the Respondent shall follow at all times the standard operating procedures described in Exhibit B for the Anthony Road Facility in Portsmouth and the West Main Road Facility in Portsmouth.

(c) The Respondent shall construct permanent structures for storage of salt and salt/sand mix piles at the Facilities described in Exhibit C in accordance with the schedule specified in Exhibit C.

(d) **Within thirty (30) days of completion of construction of each permanent structure as required in paragraph (C)(4)(c) above**, the Respondent shall submit a letter to DEM certifying that construction of the permanent structure is complete.

(e) **Upon submission to DEM of the certification required in paragraph (C)(4)(d) above**, the Respondent shall follow at all times the standard operating procedures described in Exhibit A .

(f) **Within sixty (60) days of execution of this Agreement**, the Respondent shall submit to the DEM Office of Water Resources a revised SWPPP for the Belleville Facility, North Kingstown; Anthony Road Facility, Portsmouth; Cherry Hill Facility, Johnston; Lincoln Facility, Lincoln; Scituate Facility, Scituate; Glocester Facility, Glocester; Hope Valley Facility, Hopkinton; Mid-State Facility, East Greenwich; Charlestown Facility, Charlestown; Little Compton Facility, Little Compton; Warren Facility, Warren and Westerly Facility, Westerly that incorporates the standard operating procedures described in Exhibit A and a revised SWPPP for the Anthony Road Facility, Portsmouth that incorporates the standard operating procedures described in Exhibit B.

(g) Penalty - The Respondent shall pay to DEM the sum of Twenty Thousand Dollars ($20,000.00) in administrative penalties.

(h) Payment Schedule – The Respondent's total penalty, Twenty Thousand Dollars ($20,000.00), shall be paid as follows:

(i) Upon execution of this Agreement by the Respondent, the Respondent shall pay to DEM the sum of Twenty Thousand Dollars ($20,000.00).

(ii) Penalties that the Respondent agrees to pay in this Consent Agreement are penalties payable to and for the benefit of the

State of Rhode Island and are not compensation for actual pecuniary loss.

(iii) All penalty payments shall be in the form of a check, payable to the **R.I. General Treasurer - Water and Air Protection Account**. All payments shall be delivered, along with a copy of this Agreement, to:

Chief, DEM Office of Compliance and Inspection
235 Promenade Street
Providence, RI 02908-5767.

D. COMPLIANCE:

(1) EFFECT OF COMPLIANCE - Compliance with and fulfillment of this Agreement shall be deemed to resolve all issues raised in the NOV dated August 22, 2008.

(2) FAILURE TO COMPLY - In the event that the Respondent fails to comply with items specified in Sections C (4)(c), C(4)(d) and C(4)(f) above, the entire penalty assessed in the NOV, Twenty Five Thousand Dollars ($25,000.00), shall immediately become due and payable, less any amounts paid in accordance with this Agreement. In addition, the Respondent shall pay an administrative penalty of One Thousand Dollars ($1,000.00) per month for each and every month that the Respondent remains in noncompliance with this Agreement, except that RIDEM may, for good cause shown, defer or reduce such penalty. The payment of a penalty in accordance with this paragraph shall not preclude RIDEM from seeking any other appropriate remedy (e.g. injunctive relief in Superior Court).

(3) COMPLIANCE WITH OTHER APPLICABLE LAWS - Compliance with the terms of this Agreement does not relieve the Respondent of any obligation to comply with any other applicable laws or regulations administered by, through or for DEM or any other governmental entity.

(4) ADDITIONAL ENFORCEMENT ACTIONS - Upon a determination by the Director that there is a threat to the public health or the environment, or upon discovery of any new information, DEM reserves the right to take additional enforcement actions as provided by law or regulation, including, but not limited to, the issuance of "Immediate Compliance Orders" as authorized by *R.I. Gen. Laws §42-17.1-2(21)*. This Agreement shall not restrict any right to hearing or other right available by statute or regulation that the Respondent may have regarding any new enforcement action commenced by DEM after the execution of this Agreement.

(5) FUTURE ACTIVITIES AND UNKNOWN CONDITIONS – This Agreement shall not operate to shield the Respondent from liability arising from future activities, as of the date of execution of this Agreement.

(6) NOTICE AND COMMUNICATION - Communications regarding this Agreement shall be directed to:

Patrick J. Hogan, Principal Sanitary Engineer
Office of Compliance and Inspection
Department of Environmental Management
235 Promenade Street
Providence, RI 02908
(401) 222-4700, ext. 7119

All communications regarding compliance with this Agreement shall be forwarded to the above-referenced addressee by certified mail, return receipt requested.

(7) DEFERRAL – The Director may, for good cause shown, defer any of the compliance dates prescribed herein. Good cause for deferral of any compliance date shall be forwarded to DEM in writing at least fifteen (15) days prior to the prescribed deadline.

(8) AMENDMENT – The Agreement may be amended by mutual agreement of the parties in writing.

(9) EFFECTIVE DATE – This Agreement shall be deemed entered as of the date of execution by all parties.

IN WITNESS WHEREOF, the undersigned consent to this Agreement in substance and in form.

For the Respondent

Michael Lewis, Director
Department of Transportation

6/26/09
Date

For the State of Rhode Island Department of Environmental Management

David E. Chopy, Acting Chief
Department of Environmental Management
Office of Compliance and Inspection

7/22/09
Date

EXHIBIT
A

Salt Storage Best Management Practices
Indoor Stockpile
Revised April 2009

The following Best Management Practices (BMP) shall be implemented at this stockpile location on an annual basis:

1. Salt deliveries may occur throughout the year
2. Salt pile usage is limited to the following activities:
    a. Delivery of new material
    b. Delivery of material which has been transferred from a different stockpile location
    c. Adding recently delivered material to the existing stockpile
    d. Removal of material to create a mix (salt and sand) stockpile
    e. Removal of material to be hauled to a different stockpile location
    f. Removal of material for a winter storm operation
    g. Removal of material for a winter patrol operation
3. All materials must be moved under the permanent cover within three (3) normal business days of delivery
4. During the winter season, the overall size of the stockpile will be based according to the needs of the Division of Highway & Bridge Maintenance which has the task of providing a safe and operable State Highway System
5. Care will be taken to gather and return any material which has been tracked away from the main stockpile during the months of operation
6. *Material Commodity Reports* will be submitted on a weekly basis to Division Headquarters by the Superintendent during the months of winter operations
7. At the completion of the winter operations season, and following the transfer of materials from other stockpiles, the area surrounding the stockpile must be mechanically swept within thirty (30) days
8. The typical months of winter operation activities is the period of November 15th – April 15th
9. All employees of the Rhode Island Department of Transportation and its vendors will be expected to adhere to this BMP in order to provide a safe, operable, efficient, and environmentally friendly stockpile location.
10. Indoor Stockpiles include the following sixteen (16) locations: Apex, Belleville, Charlestown, Clayville, Glocester, Hope Valley, Lincoln, Little Compton, Midstate, I-295 & US-6, RI-7 & RI-116, RI-37, Scituate, Summit, Warren Yard, and Westerly

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APR 28 2009
Environmental Management
Office of Compliance Inspection

EXHIBIT
B

Salt Storage Best Management Practices
Outdoor Stockpile located at West Main Road
And Anthony Road
Revised April 2009

The following Best Management Practices (BMP) shall be implemented at this stockpile location on an annual basis:

1. Salt deliveries shall only occur between the dates of October 15th – March 15th
2. Salt pile usage is limited to the following activities:
   a. Delivery of new material;
   b. Adding recently delivered material to the existing stockpile;
   c. Removal of material to create a mix (salt and sand) stockpile;
   d. Removal of material to be hauled to a different stockpile location;
   e. Removal of material for a winter storm operation;
   f. Removal of material for a winter patrol operation.
3. All outdoor stockpiles must be covered by an impermeable cover unless one of following conditions exists:
   a. There is a high-probability (greater than 75%) of occurrence of a winter storm within two normal business days;
   b. One of the above activities listed as part of Item No. 2 has occurred within the past two normal business days;
   c. The task of covering the stockpile presents a serious risk of injury to those involved due to any of the following:
      i. Angle of repose is greater than 3:1 ratio;
      ii. Ice and snow cover on top of the stockpile is significant;
      iii. Cavities beneath the cover present a hazard.
4. During the winter season, the overall size of the stockpile will be based according to the needs of the Division of Highway & Bridge Maintenance which has the task of providing a safe and operable State Highway System.
5. Care will be taken to gather and return any material which has been tracked away from the main stockpile during the months of operation.
6. *Material Commodity Reports* will be submitted on a weekly basis to Division Headquarters by the Superintendent during the months of winter operations.
7. At the end of the winter season, all remaining stockpile materials will be hauled to a site under permanent cover no later than May 15th.
8. Following the completion of Item No. 7, the entire storage area will be mechanically swept within fourteen (14) days.
9. The typical months of winter operation activities is the period of November 15th – April 15th.
10. All employees of the Rhode Island Department of Transportation and its vendors will be expected to adhere to this BMP in order to provide a safe, operable, efficient, and environmentally friendly stockpile location.

Rhode Island Department of Transportation
Highway & Bridge Maintenance Division

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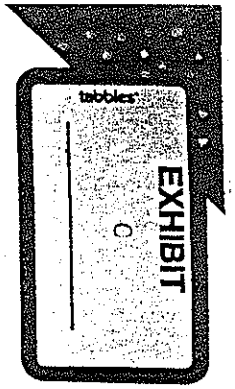
MAY 13 2009
Environmental Management
Office of Compliance Inspection



Rhode Island Department of Transportation
Division of Highway & Bridge Maintenance

Proposed Schedule of Salt Storage Facility Construction
May 2009

Facility Name, Location	2009	2010	2011	2012
Anthony Road, Portsmouth			X	
Apex/I-95, Pawtucket		X		
Belleville, North Kingstown	X			
Dillon's Corner, Narragansett		X		
George Washington Hwy, Lincoln				X
Route 116, Smithfield	X	X		
Route 6 & I-295, Johnston	X			
Warren Avenue, East Providence				X
West Main Road, Middletown			X	

(Schedule is subject to change based upon availability of RICAP funding.)

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MAY 13 2009
Environmental Management
Office of Compliance Inspection

STATE OF RHODE ISLAND
AND PROVIDENCE PLANTATIONS

CHECK NUMBER: **0000636795**
DATE: 07/09/2009
SEQUENCE NUMBER: 00000137

ID: D26494 PAYEE: RI DEPT OF ENVIRONMENTAL MANAGEMENT

DATE	DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
06/26/2009	41375	0.00	20,000.00
		CHECK AMOUNT	20,000.00

THE FACE OF THIS CHECK IS PRINTED BLUE ON A YELLOW BACKGROUND - THE BACK CONTAINS A SIMULATED WATERMARK

Frank T. Caprio, General Treasurer
State of Rhode Island and Providence Plantations
State House
Providence, Rhode Island 02903

Citizens Bank
57-12/115
Providence, RI

CHECK NUMBER: **0000636795**
DATE: 07/09/2009

AMOUNT
$****20,000.00**
NOT VALID AFTER 90 DAYS

PAY TO THE ORDER OF Twenty Thousand And No/100 Dollars

RI DEPT OF ENVIRONMENTAL MANAGEMENT
BSN OFF
235 PROMENADE ST
PROVIDENCE, RI 02908

Frank Caprio
General Treasurer

State Controller

MP

VOID VOID VOID

⑈0000636795⑈ ⑆011500120⑆ 00184221 52⑈

ATTACHMENT 6E - RIDOT Salt Storage Consent Agreement Memo

From:	Hogan, Patrick (DEM)
To:	Richardson, Alisa (DOT)
Cc:	Chopy, David (DEM); Wentzell, Nicholas (DOT); Hamilton, Heather (DOT); Baker, Joseph (DOT); Ouellette, Matthew (DOT); Rocchio, Robert (DOT); Ryan, Jennifer (DOT); Maguire, Patrick (DOT)
Subject:	RE: RIDOT Salt Storage Consent Agreement Memo
Date:	Thursday, April 13, 2023 10:38:07 AM
Attachments:	image002.png

Alisa,

I forwarded the revised SWPPP to DEM Office of Water Resources as they say that they did not receive this document years ago. It is likely that RIDOT submitted the document to the Office of Compliance & Inspection and was not forwarded. Either way, we are all set. All of the requirements of Consent Agreement No. WP07-106 have been met. As such, DEM has closed the enforcement case. No further action is required on your part regarding this matter.

Please call me if you have any concerns or questions.

RIDEM
Patrick J. Hogan, P.E.
Environmental Engineer IV
Rhode Island Department of Environmental Management
Office of Compliance & Inspection
235 Promenade Street, Suite 220
Providence, Rhode Island 02908
Tel. (401) 222-1360, extension 2777119
Email: patrick.hogan@dem.ri.gov
WWW.DEM.RI.GOV

From: Richardson, Alisa (DOT) <Alisa.Richardson@dot.ri.gov>
Sent: Tuesday, April 11, 2023 4:04 PM
To: Hogan, Patrick (DEM) <patrick.hogan@dem.ri.gov>
Cc: Chopy, David (DEM) <david.chopy@dem.ri.gov>; Wentzell, Nicholas (DOT) <Nicholas.Wentzell@dot.ri.gov>; Hamilton, Heather (DOT) <Heather.Hamilton@dot.ri.gov>; Baker, Joseph (DOT) <joseph.baker@dot.ri.gov>; Ouellette, Matthew (DOT) <matthew.ouellette@dot.ri.gov>; Rocchio, Robert (DOT) <robert.rocchio@dot.ri.gov>; Ryan, Jennifer (DOT) <Jennifer.Ryan@dot.ri.gov>; Maguire, Patrick (DOT) <patrick.maguire@dot.ri.gov>
Subject: FW: RIDOT Salt Storage Consent Agreement Memo

Pat,

Good afternoon. Please find attached, RIDOTs response to the Consent Agreement from 2009. With the attached documentation of the built salt storage facilities, we believe that the requirements of the Agreement are satisfied. Please let me know if you have any questions, or we need to clarify anything.

Have a great week!

Alisa Diaz Richardson, MS, PE, PMP
Administrator, Acting
Environmental Division
360 Lincoln Ave
Warwick, RI 02888
401-479-1327
www.dot.ri.gov



www.ristormwatersolutions.org

know where it goes
take simple steps to reduce STORMWATER POLLUTION

Illicit Discharges and Connections

Construction Site Fact Sheet No. 4

What is an ILLICIT DISCHARGE?

An illicit discharge is any discharge to a RIDOT property or drainage system that is not comprised entirely of stormwater.

Storm drain systems typically do not have filters or treatment, so pollutants go directly to the waters Rhode Islanders use for drinking, fishing, swimming, and boating.



Concrete washout pollution, an example of an illicit discharge, is flowing directly into a storm drain on this RIDOT site.

Discharges from Construction Sites

Construction sites often contribute illicit discharges that may go unnoticed. As stormwater flows over a site, it can pick up sediment, chemicals, and debris. **Illicit discharges from construction sites can include:**

- Sediment tracked offsite
- Runoff from stockpiles
- Concrete washout
- Paint and stucco washout
- Hydraulic fluid leaks, fueling overflows
- Trash and construction wastes
- Fertilizer/pesticides used on site

If you see any of these signs, take measures to **STOP THE DISCHARGE ASAP**.
Contact **RIDOT Office of Stormwater Management** for assistance at 401-734-4892.

How can they be prevented?

Following the project's site-specific Soil Erosion and Sediment Control Plan (SESC) or Stormwater Pollution Prevention Plan (SWPPP) is critical to keeping illicit discharges from occurring. Examples of best management **practices** that can prevent illicit discharges include, but are not limited to:

- Cover all soil stockpiles
- Dispose of concrete washout properly off site
- Use maintained gravel construction entrances to enter and exit the site
- Keep trash contained and covered
- Dispose of chemicals and waste materials properly
- Clean up hydraulic fluid leaks and other spills immediately

How is an illicit discharge different from a spill?

A spill is an unintentional release of a non-stormwater substance to RIDOT's stormwater drainage system or property related to *a single event*. Many times, spills are associated with emergency situations such as an automobile accident spilling oil or other automotive fluids onto the highway surface and potentially flowing into the stormwater system.

THE UNIVERSITY OF RHODE ISLAND | RI DOT Driven to get you there | RIDEM

What Is An Illicit Connection?

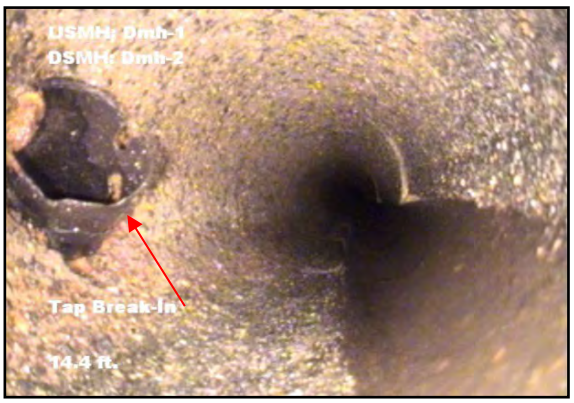
An illicit connection is any unauthorized pipe, ditch, or other manmade structure that is physically connected to RIDOT's property or drainage system. These are often found during construction.

Examples might include:

- Sanitary wastewater pipe that is directly connected from a home or business to the storm drain system
- A shop floor drain that is connected to the storm drain system

Typical pollutants found in flows coming from illicit connections include: raw sewage, heavy metals, oil and grease, solids, detergents, chlorine, potassium, ammonia and nutrients. Raw sewage typically includes fecal bacteria, which may cause public health concerns.

Discharges from illicit connections occur during wet weather and dry weather. During dry weather, the pollution effects of local waters can be severe because the discharge is not diluted in the storm sewers before it reaches the water body.



Sewer camera photo showing illicit connection (red arrow) to RIDOT storm drain.



Stormwater discharge to RIDOT system found during construction. If allowed to remain, additional flow must be managed.

What do I look for?

- Non-RIDOT piping materials connected to the storm sewer system like PVC piping
- Pipes leading into the storm sewer system from private homes and businesses
- Abnormal flow during dry weather periods
- Odors coming from the storm sewer system
- Any of the following in the storm sewer system: discolored water, floatables, suds, oil, staining and residues.



Sump pump connection to a storm drain

What do I do if I find one?

Call the Office of Stormwater Management!

401-734-4892

Produced by RI Stormwater Solutions with support from the RI Department of Transportation and the RI Department of Environmental Management.