SNEP NETWORK

Better Together: Collaborative Action to Improve Water Quality and Build Resilience

Director's Note

Hello and welcome to the Southeast New England Program (SNEP) Network's celebration of five years of collaboration and achievement by the more than 75 communities and Tribes we have had the privilege to work with! Today we not only celebrate the achievement of award recipients, but every SNEP Network community and the partners who have made it all possible. I invite you to read about the incredible community projects – from the Blackstone River, to the Taunton watershed, the islands of Cape Cod, to Narraganset Bay – that contributed to the success of the SNEP program and led to improved water quality and climate resilience in this beautiful place we call home.

I am thrilled to announce that the SNEP Network will continue to assist the region's cities, town, and Tribes for another five years! With EPA Region 1 funding, we will provide free assistance with watershed and stormwater management, regional tool development and application, and training and assistance to pay for climate resilience projects. In this next phase, we will also add programs to develop the workforce for septic maintenance and green infrastructure, which are much needed in the entire SNEP region.

I want to thank Senator Reed and the Rhode Island and Massachusetts delegates for their continued support of this important geographic program, and the staff of EPA Region 1 for their thoughtful and innovative approach to implementing SNEP initiatives. But most importantly, I want to thank the communities and Tribes that worked hand-in-hand with local SNEP Network partners and invested their time and effort to advance these important projects. It's time to celebrate!



Martha Sheils, Director
New England Environmental Finance Center (NEEFC)
The SNEP Network is a program of the NEEFC

AGENDA
9/26/2024

8:30 am - Registration & Light Refreshments

9:15 am - Opening Remarks

- ***Martha Sheils**, Director, New England Environmental Finance Center*
- ***Senator Jack Reed**, U.S. Senator for Rhode Island (Virtual)*
- ***MaryJo Feuerbach**, Chief, Watershed & Nonpoint Source Management Section, EPA Region 1*

9:35 am - Partner Presentations & Q&A

- ***James Houle**, UNH Stormwater Center*
- ***Stefanie Covino**, Blackstone Watershed Collaborative*
- *Facilitated by **Jen West,** Narragansett Bay National Estuarine Research Reserve*

10:15 am - Break

10:25 am - SNEP Network Awards

- *Presented by **Elizabeth Scott**, SNEP Network RI Liaison & **Kimberly Groff**, MA Liaision*

12:00 pm - Celebration Concludes

Our Partners

THE UNIVERSITY OF RHODE ISLAND

Mass Audubon

Kimberly Groff Consulting

SAVE THE BAY®
NARRAGANSETT BAY

Blackstone Watershed Collaborative

Audubon Society of Rhode Island

Syracuse University
College of Engineering & Computer Science
Environmental Finance Center

SRPEDD
Southeastern Regional Planning & Economic Development District

RISD
RHODE ISLAND SCHOOL OF DESIGN 1877

CAPE COD COMMISSION

UNC | SCHOOL OF GOVERNMENT
Environmental Finance Center

Throwe Environmental

SC
UNIVERSITY OF NEW HAMPSHIRE
STORMWATER CENTER

ELIZABETH SCOTT CONSULTING

The Nature Conservancy

New England neefc
Environmental Finance Center

The SNEP Network, a program of the NEEFC, is funded by the U.S. Environmental Protection Agency's Southeast New England Program.

This product has been funded wholly or in part by the United States Environmental Protection Agency under Assistance Agreement SE-00A00655 to the recipient. The contents of this document do not necessarily reflect the views and policies of the U.S. Environmental Protection Agency, or SNEP.

About the Network

The Southeast New England Program (SNEP) Network, created in 2019, is a network of 16 local partner organizations with expertise in stormwater management, watershed planning, funding and financing, leadership development, and climate resiliency.

What We Do

The Network offers a full complement of free training, leadership development, technical, and financial assistance services. The Network works collaboratively with municipalities, organizations, and Tribes within the SNEP region of southeast Massachusetts and Rhode Island to build their local capacity and advance their level of practice for stormwater and watershed management, ecological restoration, climate resilience, and sustainable financing.

Tools and Resources

Over the years, the SNEP Network has worked closely with communities to help build their capacity to move climate resilience projects to implementation. Based on communities' needs, the Network developed a suite of tools and resources that help advance projects toward implementation and maintenance. We work with communities to ensure that their projects are replicable, scalable, and fundable.

Stormwater Retrofit Manual: The *New England Stormwater Retrofit Manual* provides essential tools and techniques to design and size stormwater control measures to mitigate stormwater impacts from developed sites. The Stormwater Retrofit Manual is a key tool for improving the use of green infrastructure retrofits in tight urban areas to manage stormwater volume and reduce pollutants entering local water bodies. The guidance is based on how stormwater treatment occurs within structural controls with the understanding that achieving any water quality improvement is beneficial. It provides approaches for making improvements on sites that do not fit within a current regulatory framework. SNEP Network Partner the University of New Hampshire Stormwater Center and consultant VHB worked with the Stormwater Retrofit Technical Advisory Committee and EPA Region 1 to roll out the manual to the SNEP region and other New England States. Roll-out activities included one-on-one meetings, training for state regulators and federal entities, and training webinars.

Buffer Restoration Guide: This guide provides property owners with "how to" steps for restoring buffers along a river, pond, lake, or the coast from a degraded condition to a naturally vegetated, healthy habitat.

Tools and Resources

Tree Trench Options Guide: This guide is a tool to assist with the design of tree-based stormwater treatment units especially useful in dense urban settings with limited space and little to no street trees to reduce heat island effects.

Stew-Map: The Stewardship Mapping and Assessment Project (Stew-Map) is a public database and dashboard that maps where stewardship organizations work and how they are connected to each other, with the goal of strengthening community capacity for stewardship in this region.

Bylaw Review Tool: The Bylaw Review Tool allows communities to compare local land use regulations with best practices designed to assist communities in applying cost-effective low-impact development (LID) techniques.

Image of the Bylaw Review Tool (OSRD Tab)

	A	B	C	D	E
1	**MA Open Space Residential Design Best Practices Factors**	**Conventional**	**Better**	**Best Practice**	**Community's OSRD**
2	**Permit Type**	Special Permit	By Right	Mandatory	
3	**Land area to which the zoning is applicable**	Only a small amount of developable land	Land of particular environmental sensitivity	All developable land zoned residential	
4	**Minimum Open Space**	50-65%	65-75%	≥ 75%	
5	**Yield Calculation**	Full plan with full percolation tests	Sketch plan with selected percolation test(s)	By formula	
6	**Minimum parcel size**	≥ 10 acres	5-10 acres	None	
7	**Review Process**	No detailed analysis of site characteristics in relation to design	Cluster layout	Flexible "OSRD" 4 Step	

Stormwater Planning Series

The Stormwater Training and Facilitated Planning Series uses the *New England Stormwater Retrofit Manual* to guide SNEP communities through the process of developing a conceptual design for a nature-based stormwater retrofit option in their selected drainage area. Participants use the tools and techniques presented in the training to identify low-cost stormwater solutions. To date, we have assisted 13 communities with developing their own concept designs for stormwater solutions with many of these projects moving forward to implementation.

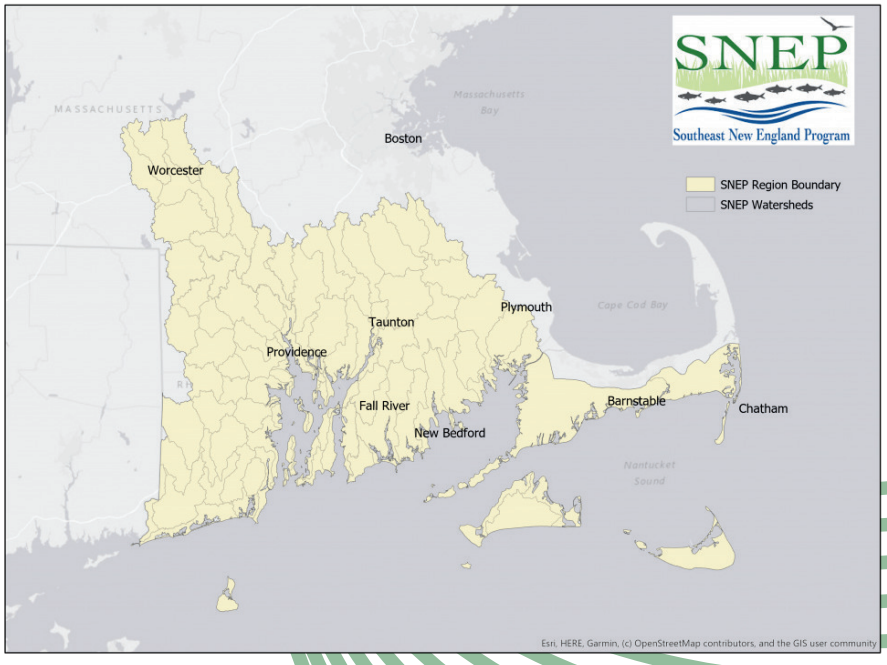
Climate Resilience Planning & Financing

The SNEP Network assists communities with planning, prioritization, peer-to-peer engagement, and sustainable financing to improve local climate resilience. Examples of past projects include:

- Creating a *Climate Resiliency and Infrastructure Stabilization Fund* for the Town of Bourne, MA.
- Conducting climate resilience and financing prioritization assessments and facilitating an Aquidneck Island leadership exchange with Portsmouth, Newport, and Middletown, RI.
- Assisting the Wampanoag Tribe of Gay Head Aquinnah with a *Tribal Climate Adaptation Plan.*
- Prioritizing nature-based solutions projects as part of a collaborative process with the Towns of Easton, Foxborough, Mansfield, Norton, and Sharon, MA.

Our Impact

- Supported over **77 municipalities, Tribes, and community organizations** by **16 regional technical assistance providers, 15 Federal and State Entities, and 14 consultants** in the SNEP region
- Completed over **35 Community Projects, 43 webinars, 3 leadership exchange events, 122 of technical assistance requests to date**
- Helped SNEP communities secure over $2 million to advance their stormwater and climate resilience projects



Multi-Year SNEP Network Pilot Projects

Canoe River Aquifer Pilot Project

Partners: Kimberly Groff Consulting, Mass Audubon, SRPEDD, The Nature Conservancy of Massachusetts
Consultant: Horsley Witten Group

The Canoe River Aquifer is a sole-source aquifer co-located within the Towns of Easton, Foxborough, Mansfield, Norton, and Sharon, Massachusetts. For more than 50,000 people across these five communities, it is the only viable source of drinking water. To protect this natural resource, SNEP Network partners teamed up with the Resilient Taunton Watershed Network and representatives from the five aquifer communities to identify nature-based solutions projects that would reduce local flooding, restore habitat, protect drinking water quality, and improve ground water supply and community resilience to climate change impacts. Based on public input and working with individual towns, hundreds of projects that were previously identified through various planning processes were narrowed down to 16 clusters of projects that optimize co-benefits. The projects were summarized and geo-located in a web-based interactive map and story board. Currently, three of these projects, the Restoration of Great Cedar Swamp in Sharon, MA, the Rumford River Knotweed Management project in Mansfield, MA, and the Mulberry Meadow Brook Wetland Restoration Project in Easton, MA are being advanced toward implementation.



Maidford River Pilot Project
Middletown, RI & Aquidneck Island Land Trust

Partners: Elizabeth Scott Consulting, Save The Bay
Consultant: Fuss and O'Neill
Additional Partners: Aquidneck Land Trust, Eastern Rhode Island Conservation District

The Maidford River is a highly altered river in need of water quality and hydrologic restoration. Located in the town of Middletown, RI, the Maidford River may appear small and insignificant, but it serves as the primary water source for two of Aquidneck Island's water reservoirs, Nelson Pond and Gardiner Pond. Land uses in the watershed are predominantly agricultural and residential, which contribute to flooding, poor water quality, and elimination of natural river buffer habitat. SNEP Network partners assisted the Town of Middletown and Aquidneck Land Trust with planning and design for nature-based solutions to reduce flooding and improve water quality. This project builds on the recommendations of local watershed plans to increase the river's flood storage capacity by creating meanders and floodplain storage, and replacing culverts that restrict flow and contribute to flooding. In addition to the floodplain restoration project, the SNEP Network assisted with a public education initiative with all property owners living along the Maidford River to promote restoration of buffers on their land to a naturally vegetated condition.



2020-2021 Massachusetts Community Assistance Projects

Pleasant Bay Alliance

Partners: Kimberly Groff Consulting, Cape Cod Commission, Throwe Environmental, University of New Hampshire Stormwater Center, Mass Audubon, The Nature Conservancy of Massachusetts

Pleasant Bay Alliance is a municipal organization formed over 20 years ago comprised of the four member towns: Orleans, Chatham, Harwich and Brewster, MA. Pleasant Bay is the largest Estuary on Cape Cod the first watershed in Massachusetts to be issued a watershed permit by MassDEP. Pleasant Bay Alliance coordinates water resources management for the Pleasant Bay Area of Critical Environment Concern (ACEC).

The SNEP Network provided technical assistance to the Alliance and its four member Towns, to guide further action related to the implementation of the watershed permit. SNEP Network Partner, the Cape Cod Commission (CCC), completed the bylaw review for each Town using the guiding principles of 1) conserving resources that already exist to preserve existing function(s), 2) integrating Green Infrastructure (GI) and Low Impact Development (LID) strategies into all development, and 3) working within existing development patterns to restore functions that are lost, including natural hydrology. The ability of the towns to regulate stormwater management was assessed based on existing bylaws and regulations with the goals of highlighting areas that already promote enhanced stormwater management and developing recommendations to further streamline or strengthen existing regulations. By conducting this analysis at the watershed level, opportunities to create regional consistency, improve climate resiliency, and enhance stormwater management throughout the Watershed were also examined. The by-law reviews were performed using Mass Audubon's tool which was later updated to include CCC's findings.

In addition, the SNEP Network, led by partner Throwe Environmental, developed a set of sustainable and scalable stormwater management and financing systems and processes, with a specific focus on expanding local capacity and infrastructure investment, that were detailed in the funding and financing strategy report. Last, Kimberly Groff facilitated discussions with representatives of the Alliance, Environmental Protection Agency, MassDEP and UNH, to quantify pollutant removal from stormwater activities that apply to both completed activities and those required by new development guidelines. The lessons learned on the project were later shared in a series of webinars hosted by SNEP Network.

Bourne, MA

Partners: Throwe Environmental, Cape Cod Commission, Nature Conservancy of Massachusetts, Kimberly Groff Consulting

Bourne is located on Buzzard's Bay on Cape Cod, MA. Numerous climate related vulnerabilities have been identified by the Town through a series of prior planning activities. To address these vulnerabilities, the SNEP Network worked in direct partnership with leaders from the Town of Bourne to address stormwater impacts within the context of a changing climate. Planning highlighted the need for increased infrastructure requirements and associated financial investments that are necessary for Bourne to adapt and thrive in increasingly difficult conditions. To help plan for these increasing costs, the SNEP Network worked with local leaders to develop a Coastal Resilience Action Strategy and financing plan of action to address civic and stormwater infrastructure needs into the future. The Coastal Resilience Financing Assessment, prepared by SNEP Network Partner, Throwe Environmental, enabled the Town of Bourne to identify the conditions necessary for effectively financing of critical infrastructure needs. With broad support from community residents, the Town of Bourne approved a $150,000 Climate Resiliency and Infrastructure Stabilization Fund to mitigate and/or adapt to the risks posed by climate change.



Wareham, MA

Partners: Throwe Environmental, Kimberly Groff Consulting, Cape Cod Commission

To help guide the redevelopment process for Wareham Village, the SNEP Network organized a leadership exchange with the Town of Wareham, MA, subject matter experts, and other communities in the northeast. The Leadership Exchange focused on incorporating climate resiliency, stormwater management, and green infrastructure into Wareham's redevelopment plans. Through the exchange, Wareham was also able to explore innovative and sustainable environmental finance opportunities associated with their redevelopment plans. The information shared during the leadership exchange was documented in a series of 4 webinars, 10 podcasts, and the Wareham Leadership Exchange and Sustainable Redevelopment final report and financing assessment.

Mendon, MA

Partners: Kimberly Groff Consulting, Mass Audubon, The Nature Conservancy of Massachusetts, Audubon Society of Rhode Island
Consultant: Horsley Witten Group

Mendon, MA, a community of just over 6,000 residents, requested Network technical assistance to create a storm water management demonstration project at their Town Hall Campus after updating their Town by-law to promote environmentally sensitive site design (ESD). The purpose of the project was to construct green stormwater infrastructure (GSI) controls using a suite of nature-based solutions to manage, treat, and infiltrate stormwater runoff using practices such as rooftop runoff capturing planters, bioretention, previous pavers, infiltration systems, and depaving a portion of the existing driveway and parking lot northwest of Town Hall.

The SNEP Network and Horsley and Witten Group developed the technical analysis and cost estimate that was needed for the Town to apply for a Massachusetts Municipal Vulnerability Preparedness (MVP) Action Grant that was needed to fund the design and permitting effort. Mendon was awarded an MVP grant in the amount ~$170,000 that enabled the design work to advance. Later the Town funded and implemented the construction of the suite of GSI controls. The Mendon Town Hall Campus now serves as a green guide to Mendon and the surrounding communities.

Mass Audubon's Allens Pond Wildlife Sanctuary

Partners: Save The Bay, Mass Audubon, The Nature Conservancy of Massachusetts

The Allens Pond Wildlife Sanctuary, located along the coast of Dartmouth, MA and Westport, MA, is expected to lose 80% of salt marshes by 2070 based on the 1.4 sea level rise scenario. The upland areas of the sanctuary, along with the neighboring Dartmouth Natural Resources Trust, provide undeveloped, preserved land that serves as valuable habitat for potential salt marsh migration. The SNEP Network helped determine the best locations to facilitate marsh migration, as well as provided training for staff to better understand the process of marsh migration. The project team assessed potential salt marsh migration facilitation strategies that can be planned and implemented at Allens Pond Wildlife Sanctuary. When assessing the site, the team found an infrastructure impediment that would need to be removed. The team identified costs and next steps for removal of the structure. The project supported the development of conceptual plans, an assessment of long-term maintenance plans and adaptive management strategies to facilitate salt marsh migration. Mass Audubon later received additional funding from the SNEP Watershed Implementation Grants (SWIG) program to expand the project.

Assawompset Pond Complex (APC) and Southeastern Regional Planning and Economic Development District (SRPEDD)

Partners: Mass Audubon, Kimberly Groff Consulting, Nature Conservancy of Massachusetts

Assawompset Pond Complex and Nemasket River play numerous important roles for both the natural ecology and the people of southeastern Massachusetts. The APC is the state's largest natural pond system and is the drinking water source for people in the cities of New Bedford, Taunton and 11 neighboring towns. From 2019 to 2022 several partners within the communities of Lakeville, MA, Middleborough, MA and other stakeholders of the Nemasket River, conducted planning efforts that assessed opportunities for improving river flow, flood mitigation, fish passage and recreational use along the Upper Nemasket River. In 2020, the SNEP Network provided technical assistance to SRPEDD on behalf of the Assawompset Pond Complex working group to conduct a Hydrology and Hydraulics (H&H) Modeling Study to assess current flow conditions and predicted conditions under potential management actions. The H&H Study provided the technical foundation for assessing the impacts of the various management strategies on flow conditions. The results were interpreted for a public audience during the community engagement process to help the public understand and provide input on various management interventions under consideration.



2020-2021 Rhode Island Community Assistance Projects

Portsmouth, RI

Partners: Throwe Environmental, Elizabeth Scott Consulting

The Town of Portsmouth, on the north end of Aquidneck Island, is highly vulnerable to climate-driven sea level rise and storm events, which disrupt daily life and impact the surrounding water resources closely tied to the town's quality of life and economy. The SNEP Network assisted Portsmouth in developing a Resilience Planning and Financing Strategy Report. Using the Resilience Financing Framework laid out in the Planning to Action: Climate Toolkit, partners Throwe Environmental and Elizabeth Scott worked with the Town's Climate Resilience Work Group made up of municipal representatives and members of the public to identify and prioritize climate resilience capital infrastructure and programmatic needs identified in prior planning efforts including its Municipal Resilience Plan and Hazard Mitigation Plan (HMP), and with support from Pare Corp to provide scoping and/or cost estimates for the highest priority actions.

The Town is implementing multiple actions to address priorities identified in their resilience plan including: a consolidated regional, multi-jurisdictional HMP for the three island communities to address regional natural hazards and strategies for resilience in the face of natural disasters and climate change. The product will be a consolidated regional, multijurisdictional HMP to be adopted by each Aquidneck Island municipality and approved by RI Emergency Management and FEMA. This effort is being funded through a FEMA BRIC award, secured with the support of RIIB's Aquidneck Island Resilience Coordinator. The Town is also part of a regional team awarded ~$2 million NOAA Climate Resilience Regional Challenge Grant. Portsmouth has also secured approximately $500,000 in funding from a RIIB MRP Action Grant and ARPA to implement high priority drainage improvements in Island Park, Portsmouth Park, and Riverside Drive, addressing long standing water quality and/or flooding problems. The work in Portsmouth Park and Island Park involves inspecting 2,200 feet of existing drain pipes using CCTV and either relining or replacing the pipe. This project makes necessary upgrades to failing drainage infrastructure and will eliminate illicit connections and prevent adjacent septic flows from seeping into damaged pipe joints or drainage structures. These improvements, combined with decades of Town-led management of septic systems, represent a major step forward in stopping bacteria-laden septic leachate from entering the drainage system and ultimately the Sakonnet River, which led to RIDEM closing these waters to shellfish harvesting over 35 years ago. The project on Riverside Drive will construct a detention pond to mitigate frequent flooding in the area.

Charlestown, RI

Partners: University of RI NEMO
Consultant: GrowSmart RI

In Charlestown, URI-NEMO joined with GrowSmart RI, a SNEP Network consultant pool provider to assist the Town in developing a conservation development ordinance ensuring that new subdivisions incorporate Low Impact Development designs and enhanced stormwater management. The SNEP Network worked closely with the Town of Charlestown and its Planning Board to address concerns leading to adoption of the conservation development ordinance by the Charlestown Town Council. With the adoption of the ordinance, conservation development standards for zoning will enhance the protection of open space in Charlestown. The ordinance serves as a model with updated elements for other communities.

Warren, RI

Partners: UNH Stormwater Center, Save The Bay, Elizabeth Scott Consulting
Consultant: Fuss and O'Neill

The SNEP Network assisted the Town of Warren with the development of a long-term flood mitigation plan for a flood prone residential area of town. The plan focused on implementing green infrastructure with the goal of mitigating flooding in the Warren Boulevard neighborhood. Three potential flood mitigation alternatives were analyzed (utilizing a hydraulic and hydrologic H & H model) in order to determine the effectiveness of each approach in solving flooding in this neighborhood. Project partners met on-site with area residents to review the options and to solicit their input in selection of the recommended approach. This project was completed by Fuss and O'Neill with SNEP Network consultant funds.

Woonasquatucket River Watershed Council (WRWC)

Partners: Consulting Elizabeth Scott Consulting, Save The Bay
Consultant: Fuss and O'Neill

The SNEP Network assisted the WRWC with designs and engineering services for parking lot stormwater retrofits at Door of Refuge Church (Iglesia Puerta De Refugio) in the Olneyville neighborhood of Providence. The Woonasquatucket River Watershed Council's River Rangers completed the installation. SNEP Network Partners, Elizabeth Scott Consulting, Save The Bay, and project consultant, Fuss and O'Neill, provided technical assistance for the site layout and guidance for its construction. The stormwater green infrastructure installed at this location are part of ongoing work by the WRWC to bring green infrastructure solutions to neighborhoods along the Woonasquatucket River, among the City's lowest income neighborhoods.

Audubon Society of RI & Providence Stormwater Innovation Center

Partners: Elizabeth Scott Consulting, Audubon Society of RI, The Nature Conservancy (RI office)
Consultant: Horsley Witten Group

Communities across the region are realizing the benefits of trees in urban settings for their role in moderating stormwater impacts and the extreme heat that is increasingly common in our inner cities, among other benefits. Unfortunately, the locations most needing trees often have the most challenging site conditions for growing trees. To assist communities with achieving their stormwater management and tree canopy goals, the SNEP Network assisted the Providence Stormwater Innovation Center with the creation of guide detailing non-proprietary, "plug-and-play" designs, including a tree filter (no storage) and a tree trench (with storage). The SNEP Network provided consultant services to develop a Stormwater Tree Trench Options Guide, produced by Horsley Witten, which provides a basic understanding of the different components of a Tree Trench and information to assist design decisions specific to each project's location and objectives. The guide starts with an initial introduction to Trees and Good Practices and is then divided into two matrices which provide detailed information on design options for the two Tree Trench types.



DESIGN MATRIX

		ADVANTAGES	LIMITATIONS	USE	CONSTRUCTION & MAINTENANCE
1. COLLECT (Inlet)					
	a. Curb Cut				
		• Cost: Inexpensive • Clean and simple design • Easy to retrofit • Difficult to clog • Can be taken off line in the winter if desired • Easily maintained	• Perpendicular to gutter line and prone to water bypassing • May require gutter line regrading • Can be damaged from plowing • Can be clogged by snow/ice during the winter	• Streetscape. • Parking lots. • Road medians. • Best located at road sag / low points	• Monitor for debris and clogging • Monitor for rainwat by-passes • Requires low point i set 1" lower than gutt line • Shovel in winter
	b. Trench Inlet				
		• Surface flow option where curb & sidewalks exist • Accommodates pedestrians • Can be used as a design element • Many grate pattern options • Can be taken off line in the winter if desired	• Cost: Expensive • Prone to more frequent clogging • Grate needs to be removed & heavy for cleaning • Difficult to build on an angle • See also Curb Cut above	• Areas with sidewalk crossings (Streetscape / Parking lots)	• Monitor for debris an clogging • Open grate to remove debris from under
	c. Paver Flume				
		• Cost: Moderate • Efficient at intercepting water • Can be angled • Adaptable to many uses • Difficult to clog • Easily maintained	• Requires more repaving • Can be clogged by snow/ice during the winter • Difficult to take offline • Utilitarian aesthetic	• Open spaces • Natural edge • Parking lot • Road medians	• Monitor for debris and clogging

Considerations:

• Design inlet location to ensure proper drainage direction. If placed along a gutter line utilize micro grading to create a low point and direct water into inlet.

Bristol, RI

Partners: URI NEMO, Audubon Society of Rhode Island, The Nature Conservancy (RI office,) Elizabeth Scott
Consultant: Fuss and O'Neill

The SNEP Network assisted the Bristol with the creation of a Bristol Town Common Master Plan to enhance park elements while addressing stormwater and erosion. The Master Plan serves as a guide for the Town in making informed decisions regarding use of a culturally and historically important park as an event space, as well as future improvements to limit runoff from untreated surfaces that discharge to street drains and into nearby Bristol Harbor. With the award of a $84,650 Section 319 grant, the Town will begin implementing the plan's recommendations by making stormwater improvements in the north parking lot at State Street.

2021-2022 Massachusetts Community Assistance Projects

Mansfield, MA

Partners: Syracuse University Environmental Finance Center, Mass Audubon, Throwe Environmental, Kimberly Groff Consulting, The Nature Conservancy of Massachusetts

After participating in the Massachusetts Municipal Vulnerability Preparedness Planning Workshop, the Town of Mansfield, MA requested technical assistance from the SNEP Network to undertake an organizational capacity assessment. The organizational capacity assessment identified what initiatives had already been implemented and what efforts needed immediate action, while also providing a reflective process for Town staff and officials to think about how resilience and climate change are embedded in the Town's existing plans. By working closely with SNEP Network partners, Syracuse University Environmental Finance Center (SU-EFC) and Kimberly Groff Consulting, the Town of Mansfield completed the assessment and developed an inventory of stormwater and resilience planning initiatives. With this information, the Town of Mansfield is positioned to fully build out their program overtime to support the planning, stormwater management and emergent resiliency needs.

Wampanoag Tribe of Gay Head Aquinnah

Partners: Kimberly Groff Consulting, Throwe Environmental, The Nature Conservancy of Massachusetts, Mass Audubon, Syracuse University- EFC, UNH Stormwater Center, University of North Carolina - EFC
Consultant: Normandeau

The Wampanoag Tribe of Gay Head Aquinnah (WTGHA) is the steward of 500 acres of Tribal lands on Martha's Vineyard, the vast majority of which is undeveloped. The Tribe and its members rely on tribal lands and waters for cultural and spiritual nurturing, as well as for basic food and medicine sustenance. To position the Tribe to access funding, the SNEP Network assisted the Wampanoag Tribe of Gay Head Aquinnah (WTGHA) with the finalization of their Tribal Climate Adaptation Plan. Tribal staff held several bi-weekly meetings with SNEP Network Partner, Throwe Environmental, who facilitated discussions on several issues related to climate change and adaptation. The SNEP Network worked with Tribal staff to analyze relevant climate hazards and identify at-risk assets and populations using the Planning to Action Climate Toolkit (PACT). Together, the group explored potential actions, as well as associated options to fund and implement priority projects. Fast-track stormwater design assistance was provided by UNH SC to help address chronic flooding at the reservation housing development.

To expand the climate adaptation conversation, SNEP Network attended a two-day water quality monitoring workshop that was hosted on Martha's Vineyard by WTGHA in partnership with the U.S Environmental Protection Agency, where twelve Tribes and Nations from across EPA Regions 1 and 2 were in attendance. A special Tribal Climate Leadership Exchange was embedded in the workshop and hosted by SNEP Network partner Throwe Environmental. The leadership exchange included a two-part session designed to foster peer-to-peer conversations between the Tribes and Nations around the challenges, barriers, opportunities, and solutions associated with climate change funding and financing. Throwe Environmental synthesized, shared, and solicited feedback on important takeaways and potential solutions going forward. Key findings were summarized in a summary report and in 2 podcasts.

During the project the Tribe's Natural Resources Department (NRD) requested additional Network assistance to address emerging concerns related to the protection of sustenance species on Tribal Lands. The Network partners worked with Normandeau to develop Tribal guidance, and policy is to ensure the continued opportunity for Tribal members to engage in cultural practices relating to harvesting of naturally growing plants for sustenance, medicinal, and spiritual purposes. The policy allows the NRD to review disturbance activities on Reservation and Trust Lands and provides a basis for preventing undue harm to Culturally Significant Species (CSS).



Mashpee Wampanoag Tribe & Town of Mashpee *(multi-year)*

Partners: Kimberly Groff Consulting, UNH Stormwater Center, The Nature Conservancy of Massachusetts,
Consultant: TRC Group (formerly ESS), Fuss and O'Neill

Santuit Pond forms the headwaters of the Santuit River that flows to Popponesset Bay, providing habitat for River Herring, Alewives, Brook Trout and American Eel. The name "Santuit" originates from the Wampanoag word "Sachem" meaning spiritual leader and the land and water resources have been home to the Mashpee Wampanoag Tribe (MWT) for 12,000 years. The Mashpee Wampanoag Natural Resources Department has served in a critical role leading efforts to protect and enhance water quality. Santuit Pond is experiencing the impacts of excessive phosphorus pollution caused by decades of watershed source inputs, including septic systems, stormwater runoff and agriculture, which has led to the build-up of bottom sediment. Watershed or external sources of phosphorus account for 21% of the controllable load while sediment cycling and internal load accounts for 76% of the controllable load. This nutrient pollution is the primary cause of repeated harmful algae blooms and other water quality problems. Since the external loads attributed to stormwater runoff were being addressed by the Town. the SNEP Network provided technical assistance to the MWT Tribe to identify measures to reduce the internal loads of phosphorus and improve water quality in Santuit Pond. Technical assistance has included the development of a feasibility study to evaluate measures to address internal loads of nutrient pollution in Santuit Pond, the development of a Phosphorus Watershed Based Plan for Santuit Pond, participation in the SNEP Network's stormwater planning training series, the development of a Baseline Monitoring and Alum Dosing Study, and support for public education including the creation of a web-based Santuit Pond Learning Hub. The SNEP Network's technical assistance has enabled the Tribe to be the lead applicant on a 319 NPS Grant to implement Nutrient Inactivation Treatment (e.g., Alum). The grant request in the amount of $700,000 is currently pending MassDEP review.



2021-2022 Rhode Island Community Assistance Projects

Newport, RI

Partners: Throwe Environmental, Save The Bay, Syracuse University EFC, North Carolina EFC

The City of Newport faces numerous environmental challenges, particularly stormwater and flooding. While the City is acutely aware of its climate hazards, a more thorough analysis of the results of previous hazard inventories and their subsequent recommendations was required to position the City for long-term climate action. The SNEP Network worked with Newport to develop a community-based climate resilience implementation and financing strategy using the Resilience Financing Framework laid out in the Planning to Action: Climate Toolkit. Throwe Environmental completed an assessment of Newport's capacity to address its climate concerns through engaged leadership and community action. The SNEP Network created a working group consisting of over 25+ City staff and community stakeholders to analyze climate hazards and identify at-risk assets and populations. The SNEP Network explored potential action to address Newport's climate vulnerabilities, developed a list of priority actions by aggregating action items from various City planning documents and from the stakeholder workgroup meetings, and provided recommendations to implement the priority actions through sustainable funding, financing, and investment. Momentum built through this process has carried over into the City's work to address flooding in the North End and to create a linear park along a portion of Elizabeth Brook. It also led to ongoing conversations with the other Aquidneck Island communities to advance island-wide climate resilience planning leading to the award of an ~$2 million NOAA Climate Resilience Regional Challenge Grant to the Aquidneck Land Trust to implement resilience projects to address flooding, sea level rise, and water pollution.

Providence, RI & Seekonk River Alliance

Partners: Elizabeth Scott Consulting, Audubon Society of RI, Save The Bay, UNH Stormwater Center, Narragansett Bay Estuarine Research Reserve

The City of Providence, in partnership with the Seekonk River Alliance, participated in the SNEP Network's Stormwater Planning Series to address water quality, erosion, habitat, and flooding issues in the York Pond watershed and along the adjacent shoreline area of the tidal Seekonk River. Working collaboratively with the City and the Seekonk River Alliance, SNEP Network partners helped develop a conceptual design for a pocket park with bioretention to capture and treat runoff from the adjacent parking lot and roadways. The design has a secondary benefit of improving the safety of the road crossing frequented by students and other pedestrian visitors.

Providence, RI & Providence Neighborhood Planting Program

Partners: The Nature Conservancy of RI

Though 27% of Providence is covered by tree canopy, it is unevenly distributed across the City and is strongly correlated with race and income. The SNEP Network awarded technical services to the Providence Neighborhood Planting Program (PNPP) to develop a Tree and Infrastructure Conflict Avoidance Guide that would highlight solutions to plant and retain healthy trees and provide accessible, walkable surfaces throughout the City of Providence as part of the PNPP Tree Plan–a collaborative project to develop a vision and action plan for creating a just, resilient, and equitably distributed urban forest in Providence. Together, SNEP Network partner, The Nature Conservancy of Rhode Island, and consultants Fuss & O'Neill, developed this guide as a supplement to the equity focused Providence Tree Plan.

South Kingstown, RI

Partners: Elizabeth Scott Consulting, Audubon Society of RI, Save The Bay, UNH Stormwater Center, Narragansett Bay Estuarine Research Reserve
Consultant: ATON

The SNEP Network awarded technical assistance to the Town of South Kingstown to address flooding, water quality, and riparian habitat restoration needs along the Saugatucket River watershed. Through participation in the SNEP Network Stormwater Planning Series, the Town of South Kingstown developed a conceptual design for a stormwater retrofit of the parking lot located behind the Main Street business district along the Saugatucket River.

The concept for a linear bioswale along the length of the parking lot and adjacent to an existing river walkway would create a more park-like experience for pedestrians while also treating runoff. The SNEP Network also provided assistance to the Town, as part of its work with ATON consultants to develop the Buffer Restoration Guide including a "usable" example, in developing conceptualized landscape architectural drawings of buffer restoration along Indian Run Brook at the Peace Dale Village Green. Building on the momentum of these projects, the Town of South Kingstown applied and was awarded additional technical assistance to advance their buffer restoration planning for Peace Dale Village Green (see 2022-2023 Community Assistance Project descriptions).

Westerly, RI & Southern RI Conservation District

Partners: Elizabeth Scott Consulting, Audubon Society of RI, Save The Bay, UNH Stormwater Center, Narragansett Bay Estuarine Research Reserve

The Town of Westerly, in partnership with the Southern Rhode Island Conservation District, participated in the SNEP Network's Stormwater Planning Series. Working with the SNEP Network, the town developed conceptual designs for bioretention swales and a wet pond on a "catalyst" private property, proposed for redevelopment as an outdoor event space, to treat runoff from the property and the adjoining roadway. Building on the momentum of previous planning efforts and team building, achieved as part of the Stormwater Planning Series, the Town has been able to not only finalize designs and construct the proposed stormwater solution at the "catalyst" site (in 2024) but also advance stormwater planning along Main Street as part of their Resilient Riverfront Renewal Project along the Pawcatuck River. To date the team has secured over $1,659,500 in grant awards and in-kind funds from a number of sources including SNEP, RIIB, RI Dept of Transportation (RIDOT), Narragansett Bay Estuary Program, SOAR, SWIG, Wood Pawcatuck Wild and Scenic Stewardship Council, Westerly, and Southern Rhode Island Conservation District to complete a Stormwater Master Plan and Streetscape design as well as install the green infrastructure stormwater retrofits on 6-8 properties. Robust public engagement has resulted in additional property owners joining, making the total number of properties involved twelve (12). The team is currently developing a master plan for the street, finishing design on 8 properties and continues to apply for grant funds to complete the entire project by 2026.

Warren, RI & Warren Land Trust

Partners: Elizabeth Scott Consulting, Audubon Society of RI, Save The Bay, UNH Stormwater Center, Narragansett Bay Estuarine Research Reserve

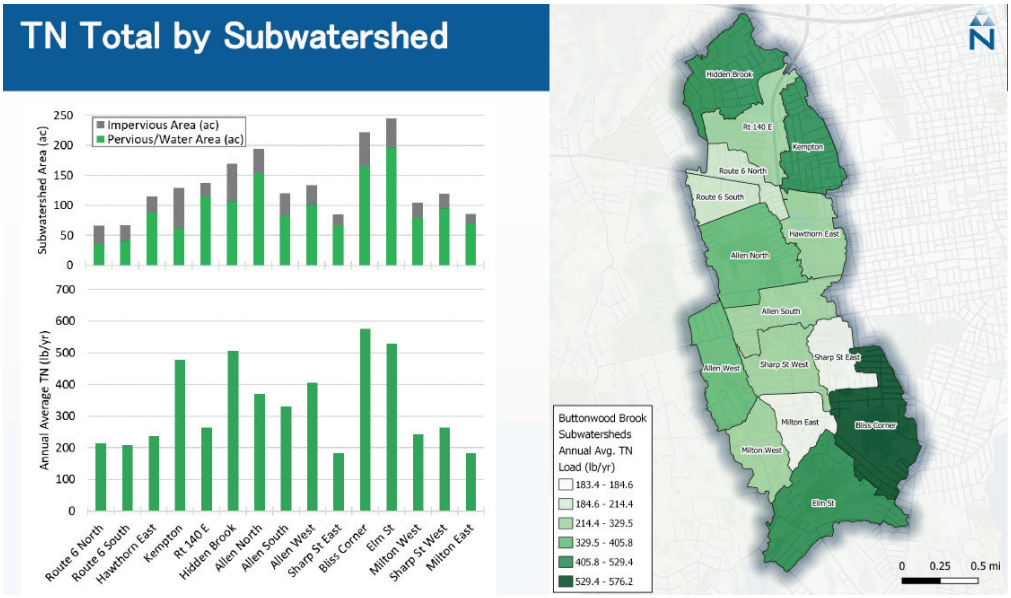
The Town of Warren, in partnership with the Warren Land Trust, participated in the SNEP Network's Stormwater Planning Series to address concerns related to an existing detention pond constructed in the early 1990s to attenuate runoff from an adjacent industrial park and residential area. The detention basin is formed by earthen berms and located along the edge of a red maple swamp bordering a brackish and salt marsh on the east side of the Palmer River. Failure of the berm and poorly functioning outlet were observed to be contributing to the salt marsh's vulnerability to the impacts of climate change and sea level rise. The SNEP Network worked closely with the Town and Warren Land Trust, whose property the detention basin is located on, to develop conceptual designs for retrofitting the basin's outlet and for infiltration trenches and other stormwater practices within the Warren Industrial Park to reduce the volume (and pollutant load) of runoff entering the basin.

2022-2023 Massachusetts Community Assistance Projects

Buzzards Bay Coalition

Partners: Kimberly Groff Consulting, Southeast Regional Planning and Economic Development District (SRPEDD)
Consultant: Paradigm

Buttonwood Brook is an impaired, urban stream that runs from its headwaters in New Bedford, MA to its mouth at Apponagansett Bay in Dartmouth, MA. Water quality has consistently ranked in the bottom 10% of all 30 major harbors and coves in the Buzzards Bay watershed. Buzzards Bay Coalition (BBC) and its partners received a pilot watershed Grant from US EPA to identify sources of pollution and develop solutions to improve water quality. The SNEP Network worked with BBC to develop an "urban watershed" mapping project that integrated GIS datasets with on-the-ground stormwater infrastructure mapping and water quality data to accurately delineate drainage areas for each of the outfalls contributing runoff to the Brook. Pollutant loading modeling helped to identify which outfall drainage areas were contributing larger amounts of pollutants, so that BBC could better prioritize where to focus stormwater management efforts. The SNEP Network developed a site ranking prioritization framework to select the top priority stormwater management projects that would not only reduce stormwater and pollutants, but also utilize natural infrastructure to provide co-benefits. BBC utilized the sub-watershed mapping, modeling, and prioritization framework to select 10 priority stormwater mitigation projects throughout the watershed that would provide the greatest benefits to water quality, wildlife, and community. This assistance enabled BBC to leverage separate funding to advance these 10 priority projects to conceptual design. Based on public and stakeholder input, the top 3 sites were selected to advance to implementation.



Shrewsbury, MA

Partners: UNH Stormwater Center, Kimberly Groff Consulting, Blackstone Watershed Collaborative, Narragansett Bay Estuarine Research Reserve, Save The Bay

Jordan Pond in Shrewsbury, MA is impaired due to phosphorus and turbidity, which is causing algae blooms that pose public health risks and limit recreational opportunities. The SNEP Network worked with the Town of Shrewsbury to develop a stormwater retrofit conceptual design at Jordan Pond through the Town's participation in the Stormwater Planning Series. Additionally, the SNEP Network worked with the Town of Shrewsbury Planning Department to conduct an in-depth review of their existing rules and regulations governing special permits and site plan review, subdivision of land, and zoning bylaws. As part of the review, the SNEP Network looked at how the by-laws address low impact development and green infrastructure, and identified target by-laws to integrate low impact development/green infrastructure standards.

Marion, MA

Partners: UNH Stormwater Center, Kimberly Groff Consulting, Southeast Regional Planning and Economic Development District (SRPEDD), Narragansett Bay Estuarine Research Reserve, Save The Bay

While working to meet the requirement of their MS4 permit, the Town of Marion, MA participated in the SNEP Network's stormwater planning series. Marion selected Sprague's Cove as their stormwater site to develop a conceptual design and cost estimate for Stormwater Control Measures (SCMs). During the site visit, an existing large stormwater detention structure that has been unmaintained and in need of repair was identified. By focusing efforts on this site, the Town of Marion aims to improve water quality discharge and flow into Sprague's Cove. Since the completion of the series, The Town of Marion has been engaging with various coastal agencies to scope and explore potential funding sources for additional water quality sampling to understand the basin's contribution to local water quality issues. This will help inform further design and secure funding for implementation of construction.



Groundwork Southcoast & New Bedford, MA

Partners: UNH Stormwater Center, Kimberly Groff Consulting, Narragansett Bay Estuarine Research Reserve, Save The Bay
Consultant: VHB

Groundwork Southcoast (GWSC) is a non-profit organization located in New Bedford and Fall River who is developing underserved community-based partnerships that empower people, businesses and organizations to promote environmental, economic and social well-being. Groundwork Southcoast and its partner, the City of New Bedford, participated in the SNEP Network's stormwater planning series to identify opportunities to address local flooding and improve community well-being. During the training, the SNEP Network evaluated two locations in need of stormwater retrofits. The first location was at the junction of Belleville Ave. and Washburn Street in the City of New Bedford and was bordered by the I-95 off-ramp. The property suffered from frequent flooding and included a MassDOT stormwater detention basin on the eastern extent of the property. While conceptual designs were prepared, the team was later directed that the project would not advance because MassDOT was already slated to address a retrofit at this property. The second retrofit opportunity was located at Brooklawn Park in the City of New Bedford. The park is a mix of dense vegetation, numerous recreation fields, tennis courts, a playground, a library, and a community center, in addition to large patches of green space with no specific purpose, all connected by paved service roads. VHB assisted the SNEP Network in a site visit to discuss potential stormwater retrofit opportunities which would aim to help reduce some of the observed flooding while also improving water quality. VHB's tech memo findings are being integrated into future plans for improvement.



2022-2023 Rhode Island Assistance Projects

North Kingstown, RI

Partners: Elizabeth Scott Consulting, Audubon Society of Rhode Island, Save The Bay, UNH Stormwater Center, Narragansett Bay Estuarine Research Reserve

The SNEP Network provided technical assistance to the Town of North Kingstown to address the discharge of untreated runoff from the neighboring residential area and roads degrading the water quality in the vicinity of the Town Beach located on the lower Narragansett Bay. Through participation in the SNEP Network's Stormwater Planning Series, the Town developed conceptual designs for multi-phase improvements to treat stormwater runoff and build resilience to include installation of eliminators on existing catch basins, a linear grass swale / rain garden, and subsurface infiltration filter regrading of the parking lot and re-location of the existing outfall.

Middletown, RI

Partners: Throwe Environment, Elizabeth Scott Consulting
Additional Partner: Rhode Island Infrastructure Bank

Middletown is frequently exposed to climate impacts including sea level rise, storm surge, and severe weather. While the Town has proactively worked to plan for climate change and mitigate impacts, more comprehensive planning with a focus on sustainable funding, financing, and investment was needed to move projects towards implementation. Middletown received SNEP Network assistance to develop a sustainable climate action strategy building upon the Town's Municipal Resilience Plan and other planning efforts to date. SNEP Network partners Throwe Environmental and Elizabeth Scott conducted multiple resilience assessment and planning exercises with a community project workgroup to better understand the resilience challenges and opportunities facing the Town. The SNEP Network used these activities and the Resilience Financing Framework laid out in the Planning to Action: Climate Toolkit to compile and refine a priority list of resilience-focused capital infrastructure projects and associated programs in the Town. Additionally, the SNEP Network developed a list of recommendations for sustainable funding, financing, and investment in climate resilience capital projects. With the development of their climate resilience strategy, list of prioritized recommendations, and cost estimates for their highest priority resilience capital projects, the Town of Middletown was successful in receiving a RIIB Municipal Resilience Action Grant to construct resiliency upgrades to the Wave Avenue pump station and is positioned to advance other climate resilience goals.

Burrillville Land Trust

Partners: Blackstone Watershed Collaborative; Syracuse University EFC

The SNEP Network awarded technical services to the Burrillville Land Trust to develop education materials focused on land use and watershed protection.

South Kingstown, RI

Partners: Elizabeth Scott Consulting, Save The Bay
Consultant: Horsley Witten Group

Building upon the conceptualized landscape architectural drawings of buffer restoration along Indian Run Brook and the Town's participation in the stormwater planning series, the SNEP Network worked with the Town to develop a planting plan to restore Indian Run Brook's riparian area and help stabilize its bank as it flows through the Peace Dale Village Green, and to develop a conceptual plan for retrofits to the Town's Neighborhood Guild parking lot to reduce and treat runoff before it discharges into this reach of Indian Run Brook. The team then worked with SNEP Network consultants, Horsely Witten Group, to advance the conceptual design of the parking lot retrofits. This phase of the project entailed completion of site assessments (existing site survey and soil evaluation), 30% design plans and then final Construction (100%) Plans including cost estimates. In 2024, South Kingstown was awarded a $66,350 Bay and Watershed Restoration Grant to implement the Indian Run Brook Restoration project which includes riparian buffer plantings and stormwater retrofits at the Neighborhood Guild parking lot.

Aquidneck Island Climate Resilience Leadership Exchange

Partners: Throwe Environment, Elizabeth Scott Consulting
Additional Partner: Rhode Island Infrastructure Bank

Building upon the SNEP Network's climate resilience work with Newport, Middletown, and Portsmouth, RI, Throwe Environmental and Elizabeth Scott worked with the RIIB's Aquidneck Island Resiliency Coordinator to organize a Leadership Exchange to foster peer-to-peer learning, collaboration, and regional coordination on high priority topics. This exchange reopened lines of communication amongst island-wide leadership and an informal agreement between the municipalities and Naval Station Newport to coordinate efforts to increase regional climate resilience. Since their work with the SNEP Network, Aquidneck Island communities secured ~$2 million from NOAA's Climate Resilience Regional Challenge. The "Growing Regional Resilience Coordination on Aquidneck Island" initiative will allow the partnership to grow, offering technical assistance, capacity building, and actionable strategies to respond to climate change. They will work with their established network of partners to implement resilience projects that include nature-based solutions to address threats from flooding, sea level rise, and water pollution.

2023-2024 Massachusetts Assistance Projects

Swansea, MA

Partners: UNH Stormwater Center, Kimberly Groff Consulting, Blackstone Watershed Collaborative, Narragansett Bay Estuarine Research Reserve, Save The Bay,
Consultant: Horsley Witten Group

Mount Hope Bay receives untreated stormwater from a series of outfalls located at Compton's Corner in the Ocean Grove neighborhood in southern Swansea, MA. Polluted runoff and an aging stormwater infrastructure system are contributing to water quality impairments that prevent shellfishing and threaten public safety at the Town Beach. Heavy rainfall is also causing flood impacts to roadways and properties along Anthony Ave. To address the nutrient pollution, The Town of Swansea participated in the SNEP Network Stormwater Planning Series and learned how to use the latest stormwater tools and techniques to develop conceptual designs, cost estimates and expected pollutant removal. With consulting support from SNEP Network consultant Horsley Witten Group, Swansea is now working to advance stormwater retrofit designs at Anthony Ave to 30% design. CZM Grant funding is being utilized to prioritize Compton's Corner upstream stormwater designs/sites that will improve water quality and reduce flooding. The Harbor Advisory Committee implemented a water quality monitoring program for the Cole's River to better understand the water quality health in the estuary and inform improvement planning. It is anticipated that once the design and permitting phase is completed the designs will be advanced to implementation.

Mashpee Wampanoag Tribe

Partners: Kimberly Groff Consulting
Consultant: Normandeau

The SNEP Network is assisting the Mashpee Wampanoag Tribe's Natural Resources Department with the development of a Tribal nonpoint source pollution assessment and management plan. The two primary tasks associated with this project are the development of a nonpoint source assessment report and a management plan. The Tribe is one of two federally recognized Tribes of Wampanoag people in MA. Within the town of Mashpee, 170 acres of Tribal trust lands are distributed over 11 independent parcels. The plan will rely heavily on partnerships to address nonpoint source pollution impacting streams or lakes at the watershed level, as there are multiple non-Tribal stakeholders. Upon completion of the Tribe's nonpoint source assessment and management plan, as well as EPA approval for Treatment in a Manner Similar to States, the Tribe will have acquired a funded EPA Clean Water Act Section 319 program to continue addressing nonpoint impacts in perpetuity.

Westport, MA

Partners: UNH Stormwater Center, Kimberly Groff Consulting, Blackstone Watershed Collaborative, Narragansett Bay Estuarine Research Reserve, Save The Bay, Consultant: Horsley Witten Group

The East Branch of the Westport River is being impaired by polluted runoff in the Town of Westport, MA, negatively impacting the ability of fish to live and reproduce and humans to enjoy the recreational benefits such as swimming and shellfishing. The Westport River has an approved TMDL for Nitrogen that includes a goal to reduce loads attributed to stormwater runoff. The Westport Conservation Land Trust in partnership with the Town of Westport were provided training by the SNEP Network through the Stormwater Planning Series. Partners selected the Gifford Road site as the locus for their project because of the blend of land use, agricultural and impervious cover. It was determined during a site visit that Stormwater runoff from Gifford could be intercepted and treated to reduce volume and pollutant load by installing a stormwater control measure. The selected stormwater control measure was a bioswale with an at grade inlet (overland flow) and high flow bypass into maintained culvert swale. Numerous other opportunities to improve the site were identified during the site visit. With consulting support from SNEP Network consultant Horsley Witten Group, Westport is now working to advance stormwater retrofit designs at Gifford Road to 30% design. Upon completion of the design the partners will pursue funding opportunities to advance the project toward implementation. Lessons learned from the project will be transferred to other locations in Westport.



2023-2024 Rhode Island Assistance Projects

Coventry, RI & Upper Dam Pond Conservation Association

Partners: Elizabeth Scott Consulting, Audubon Society of Rhode Island, Save The Bay, UNH Stormwater Center, Narragansett Bay Estuarine Research Reserve

The Town of Coventry, in partnership with the Upper Dam Pond Conservation Association, participated in the SNEP Network's Stormwater Planning Series to address one of many discharges of untreated stormwater runoff into Upper Dam Pond. These stormwater borne nutrients and sediments from roads and residential areas inhibit recreational use of the lake and impact wildlife habitat. As part of the planning series, the Town's team developed an innovative and low cost conceptual design for a non-proprietary stormwater filter to treat runoff before being discharged into Upper Dam Pond - overcoming site constraints that had previously led the Town to select a more traditional but less effective treatment option. The Town is currently receiving SNEP Network consultant services to advance the design of the stormwater treatment to 30% design and has been awarded a SWIG grant for $87,500 to implement the selected practices, which they hope to replicate in other areas of Town.



Hopkinton, RI

Partners: Elizabeth Scott Consulting, Audubon Society of Rhode Island, Save The Bay, UNH Stormwater Center, Narragansett Bay Estuarine Research Reserve

The SNEP Network provided technical assistance to the Town of Hopkinton to address issues identified in the Town's 2023 Hazard Mitigation Plan related to uncontrolled runoff creating flooding conditions and erosion along a local roadway and eventually discharging untreated into Mile Brook, a tributary of the Pawcatuck River. Through participation in the SNEP Network's Stormwater Planning Series, the Town developed conceptual designs for easily maintained and low-cost solutions to manage the runoff and to prevent erosion.

Providence, RI

Partners: Elizabeth Scott Consulting, NE EFC, UNC EFC, Narragansett Bay Estuarine Research Reserve

The SNEP Network is assisting the City of Providence with identifying sustainable financing for city-owned sewer and stormwater collection systems and supporting a public engagement process. The SNEP Network has worked in collaboration with the City of Providence's Sustainability Department and the Office of the Mayor to form a Stormwater and Sewer Task Force. As part of this effort, the Network is supporting the City and its consultant in assessing current and future costs to operate and maintain its infrastructure, and in developing equitable and sustainable funding options for consideration by the City and its Task Force. The Task Force members are currently attending facilitated meetings to provide feedback to the City and its consultants as they assess infrastructure needs and sustainable and equitable funding options. They have also learned stakeholder engagement strategies to prepare them for eliciting feedback from neighbors and peers about concerns related to the City's stormwater and sewer infrastructure. At the conclusion of this phase of the project, the Task Force will make recommendations to Providence Mayor Smiley's administration on sustainable and equitable financing options. SNEP Network partners supporting the Task Force are Elizabeth Scott (Rhode Island Liaison), Martha Sheils (NEEFC), and Anna Patterson (UNC EFC). Jen West (NBNERR) is serving as the facilitator of the Task Force meetings.

Rhode Island Low Impact Development (LID) Checklist Technical Assistance

Partner: URI-NEMO

Over the last five years, SNEP Network Partner University of Rhode Island Nonpoint Education for Municipal Officials (URI-NEMO) has assisted Charlestown, Exeter, Hopkinton, North Kingstown, Richmond, South Kingstown, and Westerly, RI in reviewing existing local development rules against model development principles designed to reduce runoff and other impacts from new construction and redevelopment. The technical assistance helped guide communities through URI-NEMO's Low Impact Development Checklist, which was completed by all participating communities.

Tiverton, RI

Partner: URI-NEMO

SNEP Network Partner, the University of Rhode Island Nonpoint Education for Municipal Officials (URI- NEMO), has assisted the Town of Tiverton in developing a conservation development ordinance ensuring that new subdivisions incorporate Low Impact Development designs and enhanced stormwater management. Since then, the Town of Tiverton has adopted a Conservation Development ordinance.

Awards

The Multiplier Award

This award recognizes communities who have excelled at leveraging multiple funding sources to advance their projects toward further planning, design, or implementation. These communities have taken multiple actions that demonstrated their ability to think creatively, holistically, and strategically to leverage funds for their project.

- **RI: Portsmouth, Rhode Island**
- **MA: Buzzards Bay Coalition**

The Barrier Breaker Award

This award recognizes communities who were able to overcome barriers and challenging obstacles during their project. These communities were able to persevere through the barriers to advance their projects towards further planning, design, or implementation. These communities demonstrated their ability to adapt, adjust, and develop thoughtful, effective solutions in order to advance their projects.

- **RI: Coventry, Rhode Island & Upper Dam Pond Conservation Association**
- **MA: Mashpee Wampanoag Tribe & Mashpee, Massachusetts**

The Bridge Builder Award

This award recognizes communities who have excelled at outreach, engagement, and consensus building in order to gain community support to advance their projects toward further planning, design, or implementation. These communities have demonstrated the ability to build bridges and have local champions leading community engagement efforts.

- **RI: Westerly, Rhode Island & Southern Rhode Island Conservation District**
- **MA: Assawompset Pond Complex & Southeastern Regional Planning and Economic Development District**

The Futures Award

This award recognizes communities who have excelled at building their local capacity by using the SNEP Network tools, training, and/or technical assistance, and applying their knowledge to advance current projects and set themselves up for future progress. These communities have demonstrated the ability to expand what they have learned to future projects.

- **RI: Aquidneck Island Communities (Newport, Middletown, Portsmouth, Rhode Island), Aquidneck Land Trust & Naval Station Newport**
- **MA: Swansea, Massachusetts**