FY 2022 -
FY 2023

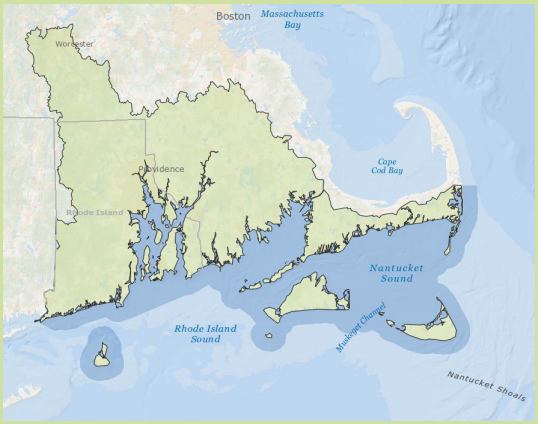
Southeast New England Program

Year in Review: 2022

Our Program

The Southeast New England Program (SNEP) at EPA Region 1 is a geographic program aimed at improving water quality, protecting and restoring habitat and supporting sustainability across a region that includes three Tribal Nations, Rhode Island, and southeastern Massachusetts. This document provides an overview of the SNEP 2022 achievements made by EPA and our partner programs: the SNEP Watershed Implementation Grants (SWIG) program, which is managed by Restore America's Estuaries; the SNEP Network, which is managed by the New England Environmental Finance Center; the Narragansett Bay Estuary Program; and the Buzzards Bay National Estuary Program.

This document includes highlights from each program team to provide information on all major activities and accomplishments that were funded or directly supported by the Southeast New England Program between 2022 - 2023.



How to Navigate This Document. Each section of this document was written by the primary team member of the SNEP subsidiary or partner. The title of each Program and subsidiary is hyperlinked to the main web page of that organization. If you'd like to learn more about any specific area of our Program, we strongly encourage you to visit their corresponding web page. To stay in the loop on all things SNEP, be sure to register for our newsletter and mailing list, HERE.

EPA United States Environmental Protection Agency

FY 2022 - FY 2023

SNEP
Southeast New England Program

Year in Review: 2022

Our Program

In FY22, EPA-SNEP received $6 Million in regular ("base") appropriations as well as $3 Million as a part of the Bipartisan Infrastructure Law (BIL). Through base appropriations, SNEP allocated $5.66M in grant funding to support our Program partners throughout the region, including funding for the Buzzards Bay and Narragansett Bay National Estuary Programs, our five pilot watershed projects, the SNEP Watershed Implementation Grant (SWIG) program, and the SNEP Network. Together these awards supported new and ongoing projects across the region and leveraged an additional $1.64M in matching funds.

Continued Engagement and Outreach. The EPA SNEP Team continued its work with our Steering Committee and subcommittees. The Steering Committee is tasked with providing oversight and guidance on the direction of the Program; the Monitoring subcommittee is tasked with streamlining available water quality and habitat data throughout the region; and the Ecosystem Services subcommittee works to communicate the story of the Program and region through the restoration work that our Program supports. Steering Committee and subcommittee meetings are now scheduled quarterly. We announced the nomination and confirmation of our first-ever subcommittee chairs: Tim Pasakarnis (Cape Cod Commission) as chair of the Monitoring subcommittee, and Bryce DuBois (College of Holy Cross) as chair of the Ecosystem Services subcommittee. As chairs, Tim and Bryce will work to guide their respective subcommittees and represent their interests at each Steering Committee meeting.

First-ever SNEP Symposium. In May 2022, SNEP successfully hosted its first-ever virtual Symposium. We welcomed over thirty-two speakers across three concurrent presentation tracks and poster presentations, and over 150 attendees joined us throughout this all-day event. All presentation materials are now archived on our website.

Watershed-Scale Implementation. Between FY21-FY22, SNEP launched the Pilot Watersheds Initiative (PWI) with the selection of five pilot watershed grants. EPA will invest $750,000 in each watershed to pilot innovative solutions that address common environmental challenges impacting Tribes and communities, including excess nutrients, degraded habitat, and vulnerability to climate change stressors. Projects will demonstrate the effectiveness of small-scale stormwater control measures, wetland biofilters, streambank improvements, and provide an case study of a community-centered climate resilience plan. By projects' end, SNEP will have invested $3.75 Million in the PWI over five years. More information about each pilot can be found on the SNEP website.

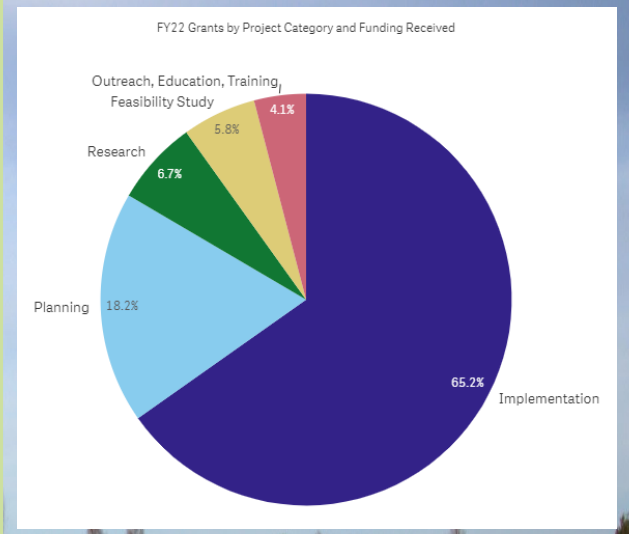
BIL-ding Lasting Change. The Bipartisan Infrastructure Law (BIL) provides SNEP with $15 Million over five years. In FY22, the SNEP Team worked with the Steering Committee to identify priority needs that support long-lasting change across landscapes throughout our Region. For this first year, SNEP has awarded $1.15M to Barnstable County, Massachusetts, to pilot the development of Responsible Management Entities to support the use of new, more effective nitrogen reducing septic systems on and near Cape Cod. Our program also funded the U.S. Geological Survey to conduct groundwater research and monitoring across the region to better understand ways to address nutrients. EPA released a SNEP Request for Applications in November to award $930,000 to support projects that enhance decentralized wastewater in Rhode Island. The SNEP Team is also working to support stormwater, habitat, and flood-prevention infrastructure improvements in the region.

Meeting Justice40 Goals. The Justice40 initiative set the goal that at least 40% of benefits for some BIL-funded efforts are directed to disadvantaged communities throughout the U.S. To meet this goal, the SNEP Team is working with regional partners to finalize a programmatic definition of "disadvantaged communities" that be used for our efforts that is consistent with federal guidance and supports the efforts of our regional partners. Once complete, EPA will design and release an enviornmental justice (EJ)-specific SNEP grant opportunity to meet our Justice40 goals.

From Concept to Implementation. The SNEP Team aims to fully implement the advice received during each workshop we host. This year, SNEP hosted a workshop to identify strategies for the Program to support public risk communication about Harmful Algal Blooms (HABs) in the region. As a result of the workshop, the SNEP Team is now working to create a public-facing informational resource on HABs.

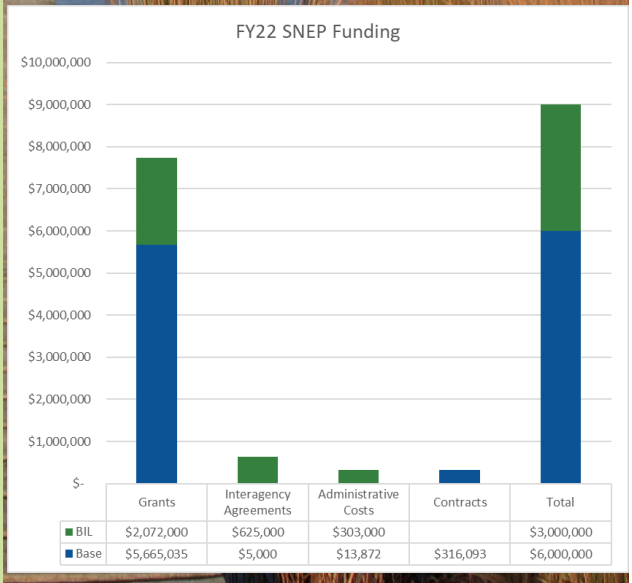
Changes on the H-ORISE-n. Oak Ridge Institute for Science and Education (ORISE) Fellow Shasten Sherwell completed her work with our Program this year. During her time with us, Shasten focused on developing a Harmful Algal Blooms detection and monitoring strategy for underserved areas within the SNEP region with a specific focus on freshwater cyanobacteria blooms. The SNEP Team will continue the seasonal water quality monitoring this spring and summer. We are currently in the process of recruiting a new ORISE intern to specialize in data management and data visualization for our Program.

The SNEP Team is Growing and Changing. Over the past year, EPA has hired on two new full-time employees: Matthew Stamas and Haley Miller. Matt is an environmental engineer who will support the SNEP Network and work to expand stormwater initiatives. Haley is a wetland ecologist and will seek to restore and protect habitat and ecosystem function. Both Matt and Haley will additionally serve as Grant Project Officers for our many upcoming grant awards and support the numerous new initiatives our Program will release over the next five years as we implement the Bipartisan Infrastructure Law.



SNEP TEAM:

MaryJo Feuerbach, *SNEP Manager*
Ian Dombroski, *Program Coordinator*
Adam Reilly, *Communications Coordinator*
Margherita Pryor, *SWIG and Policy Coordinator*
Matthew Stamas, *Stormwater and Network Coordinator*
Haley Miller, *Habitat Coordinator*



	Grants	Interagency Agreements	Administrative Costs	Contracts	Total
BIL	$2,072,000	$625,000	$303,000		$3,000,000
Base	$5,665,035	$5,000	$13,872	$316,093	$6,000,000

EPA United States Environmental Protection Agency

Buzzards Bay National Estuary Program

Joe Costa, Director

The Buzzards Bay National Estuary Program (NEP), a unit of the Massachusetts Office of Coastal Zone Management, works to protect and restore water quality and living resources in Buzzards Bay and its watershed. The Program receives funding from, and is part of, the U.S. Environmental Protection Agency's National Estuary Program; and partners closely with the Southeast New England Program.

Buzzards Bay Municipal Mini-Grants Program. In November 2022, the Buzzards Bay NEP awarded $195,000 in additional, federally funded grant awards for projects that will protect drinking water supplies, preserve important habitat, and address pollution from stormwater runoff in the Buzzards Bay watershed. These five grants to four towns, which are being matched by over $132,000 in private contributions and in-kind services, were awarded with funding from SNEP.

- Rochester - $70,000 to work with the Towns of Mattapoisett, Fairhaven, Marion, and Acushnet, along with the Buzzards Bay Coalition, to purchase and permanently protect 240 acres of land important to protect the Mattapoisett River Valley aquifer.
- Mattapoisett - $35,000 to establish a strategic master plan for stormwater management in the Shipyard Lane area.
- Westport - $30,000 to work with the Buzzards Bay Coalition to purchase and permanently protect 25 acres of land associated with the headwaters of Snell Creek.
- Fairhaven - $25,000 to work with the Buzzards Bay Coalition to permanently protect 9 acres of land that provide a key upland buffer to wetlands and that protect important wildlife habitats.
- Mattapoisett - $35,000 to work with the Mattapoisett Land Trust to purchase and permanently protect 14 acres of undeveloped land.

Read more about the projects HERE.

Buzzards Bay Targeted Grants. With funding from SNEP's base budget and the Bipartisan Infrastructure Law funds, the Buzzards Bay NEP was able to initiate five subawards:

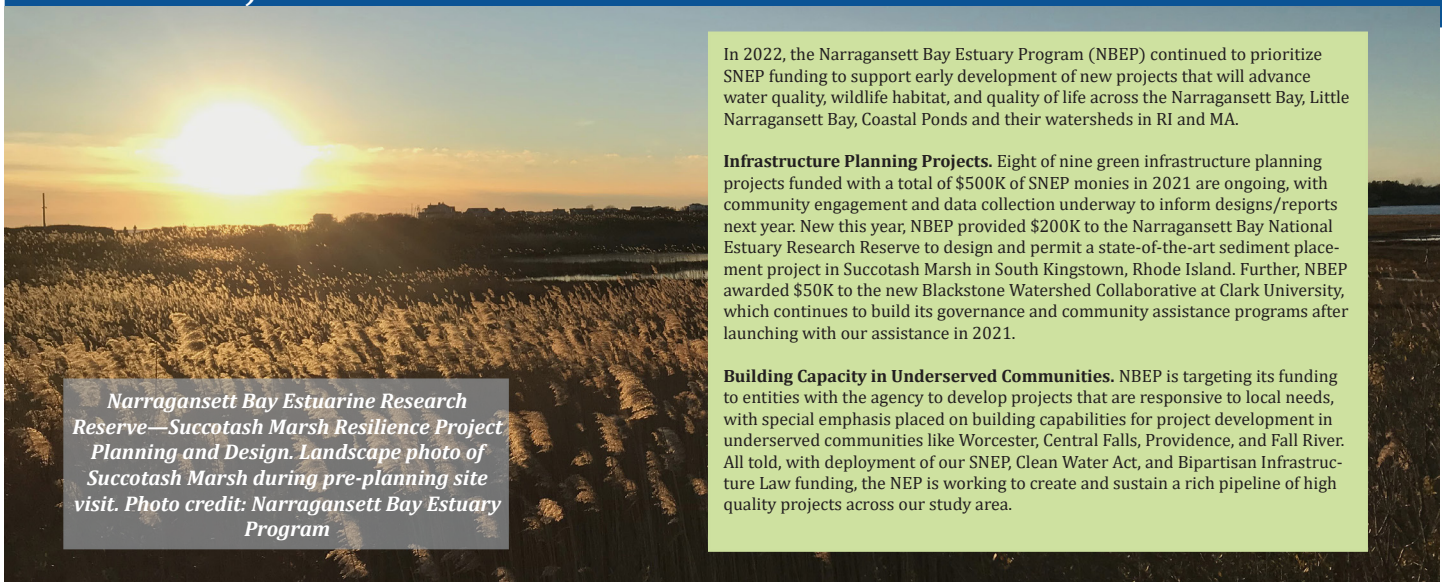
- Baywatchers Program: The Buzzards Bay NEP continued to support the Buzzards Bay Coalition's Baywatchers water quality monitoring program with a $40,000 grant. For 30 years, Baywatchers has collected basic water quality, nutrient, and algal pigment information around Buzzards Bay during the summer months and educated the public on local water quality.
- Nutrient Inputs to Buzzards Bay from Coastal Rivers: Because climate change will bring increasingly variable precipitation to the Northeast, understanding river-borne sources of nutrients to Buzzards Bay will be critical to addressing nutrient loads to the Bay in the future. With a $45,000 award to the Woodwell Climate Research Center of Woods Hole, this river monitoring effort, led by Woodwell scientist Chris Neill, continued to monitor 12 Buzzards Bay streams. The funding helped pay for continuous monitoring equipment and laboratory testing to measure nitrogen inputs to Buzzards Bay.
- Buzzards Bay Long-Term Salt Marsh Study: In 2022, the program expanded its partnership with the UMass Dartmouth Civil and Environmental Engineering program, by working with students of Professor Dan MacDonald. The $49,000 award for this project enabled the students to conduct field surveys using Unmanned Aircraft Systems. The imagery will be processed with photogrammetry software to generate highly detailed Digital Surface Models and georectified true color imagery. UMass Dartmouth will use existing National Geodetic Survey rod benchmarks installed by the Buzzards Bay NEP as elevation controls. The work will continue through 2023. For more information on the marsh studies, see this Buzzards Bay NEP web post.
- New Bedford Public Schools Sea Lab Summer Program: With a $27,500 award from the Buzzards Bay NEP, Sea Lab will provide scholarships to up to 40 students to enable more minority and economically disadvantaged youth in New Bedford to participate in its environmental studies program. The Buzzards Bay NEP funded a student initiative to install water bottle filling stations and provide reusable bottles to reduce the single-use plastic water bottles by the school. Students also learned about environmental issues by participating in a field trip to Cuttyhunk Island in Buzzards Bay, a whale watch off Cape Cod, and a weather station for the school.
- Buzzards Bay Stormwater Collaborative: In December, the Buzzards Bay NEP initiated a $97,000 award to Massachusetts Maritime Academy (MMA) to address stormwater impacts using EPA funds from the Bipartisan Infrastructure Law. Funding supported an MMA program manager and certain administrative costs of MMA co-op students in the Buzzards Bay Stormwater Collaborative. Training videos for the program can be found at the Buzzards Bay Stormwater Collaborative YouTube channel. For additional information about the collaborative, including an interactive map of stormwater infrastructure and discharge water quality data, see the Buzzards Bay Stormwater Collaborative page.

SNEP and SNEP Grant Awardee Support. The Buzzards Bay NEP is an advising partner to EPA in implementing SNEP and is a supporting partner to several SNEP and the Massachusetts Department of Environmental Protection (MassDEP) grant awards.

- Watershed Assessment: The Buzzards Bay NEP is supporting a five-year focus on Apponagansett Bay by the Buzzards Bay Coalition under the SNEP Pilot Watershed Initiative. The funding will help to identify and prioritize sources of watershed impairments and develop solutions to address stream alteration and nutrient loading in an urbanized section of the Buttonwood Brook-Apponagansett Bay area of Massachusetts. The Buzzards Bay NEP is supporting the effort by providing land use analysis and GIS services during the five-year project to support total maximum daily load (TMDL) development.
- TMDL Assessment: The Buzzards Bay NEP is continuing to work with the Town of Bourne and the Buzzards Bay Coalition on a MassDEP 604(b) grant to conduct a TMDL assessment for the Red Brook Harbor and Phinney's Harbor Complex in the Town of Bourne.
- Runnel Study: The Buzzards Bay NEP is supporting a Runnel Study between the Woodwell Climate Center and the Buzzards Bay Coalition. Scientists are looking at how the use of runnels—constructed shallow drainage meanders—may promote revegetation in upper areas of salt marsh that are dying off from standing water. The results of this work will help town officials and state and federal mangers develop possible mitigation strategies to protect and restore salt marshes. The Buzzards Bay NEP is documenting changes in marsh boundaries, and processing GPS and elevation data for the study.

The Narragansett Bay Estuary Program

Mike Gerel, Director



Narragansett Bay Estuarine Research Reserve—Succotash Marsh Resilience Project Planning and Design. Landscape photo of Succotash Marsh during pre-planning site visit. Photo credit: Narragansett Bay Estuary Program

In 2022, the Narragansett Bay Estuary Program (NBEP) continued to prioritize SNEP funding to support early development of new projects that will advance water quality, wildlife habitat, and quality of life across the Narragansett Bay, Little Narragansett Bay, Coastal Ponds and their watersheds in RI and MA.

Infrastructure Planning Projects. Eight of nine green infrastructure planning projects funded with a total of $500K of SNEP monies in 2021 are ongoing, with community engagement and data collection underway to inform designs/reports next year. New this year, NBEP provided $200K to the Narragansett Bay National Estuary Research Reserve to design and permit a state-of-the-art sediment placement project in Succotash Marsh in South Kingstown, Rhode Island. Further, NBEP awarded $50K to the new Blackstone Watershed Collaborative at Clark University, which continues to build its governance and community assistance programs after launching with our assistance in 2021.

Building Capacity in Underserved Communities. NBEP is targeting its funding to entities with the agency to develop projects that are responsive to local needs, with special emphasis placed on building capabilities for project development in underserved communities like Worcester, Central Falls, Providence, and Fall River. All told, with deployment of our SNEP, Clean Water Act, and Bipartisan Infrastructure Law funding, the NEP is working to create and sustain a rich pipeline of high quality projects across our study area.

SNEP Watershed Implementation Grants

Tom Ardito, Director

As 2022 came to a close, the SNEP Watershed Implementation Grants (SWIG) looked back on its fifth year of grantmaking. Since 2018, SWIG has provided more than $12 million in funding for nearly 60 grass-roots projects and partnerships working to restore coastal and watershed environments in Rhode Island and Southeastern Massachusetts. As we enter 2023, SWIG looks forward to another impactful year, supporting local projects to restore clean water, healthy ecosystems and sustainable communities throughout Southeast New England.

Building Change in Environmental Justice Communities. In 2022, the SWIG awarded a total of $1.9 million for 11 grants across Rhode Island and Massachusetts, selected from more than $6 million in requests received. One focus area for the Program is environmental justice (EJ). Of the 11 grants awarded this year, 9 grants totaling nearly $1.6 million (84%) of total SWIG grants were located within or directly benefited environmental justice communities. Among SWIG's EJ awards this year are:

- $183,948 to the Providence Stormwater Innovation Center at Roger Williams Park to continue to engage the community in clean water restoration.
- $150,000 to the City of Brockton, MA, to reduce flooding and facilitate economic re-use of a former railyard.
- $150,000 to Community Music Works to build green infrastructure into its new music center in the West End neighborhood of Providence.
- $215,569 to Groundwork Southcoast to engage local youth in restoring Cook Pond and nearby green spaces in Fall River, MA.
- $262,077 to New England Interstate Water Pollution Control Commission (NEIWPCC) to fight infestations of the invasive water chestnut in freshwater ponds in the Blackstone and Taunton River watersheds.

Supporting Innovation in the SNEP Region. SWIG funded a variety of other innovative projects in 2022, including:

- $250,000 to the Town of Gloucester, RI, for commercial wastewater planning for the village of Chepachet.
- $55,206 to the Center for Coastal Studies to remove derelict fishing gear from the shores of tiny Cuttyhunk Island; local artists will recycle the recovered gear into sculpture that raises awareness of marine pollution.
- $158,456 to the Town of Nantucket for a "living shoreline" project that will protect a vulnerable coastal road while restoring oysters and habitat in an island salt pond.
- $124,000 to the Rhode Island Chapter of Trout Unlimited to plan removal of a derelict dam on the upper Pawtuxet River.
- $138,616 to the Association to Preserve Cape Cod to restore more than 70 acres of wetland and estuarine habitat on Weir Creek.
- $200,000 to the Southern Rhode Island Conservation District to restore clean water, improve public access, and foster flood resilience along the Lower Pawcatuck River in downtown Westerly.

Completed Projects Across the SNEP Region. In addition to these new awards, the SWIG continued to oversee a broad portfolio of grants from prior years. Several SWIG projects were successfully completed this year, including some that were delayed by the pandemic. Projects substantially completed in 2022 included:

- Evaluating Nutrient Loadings to the Pawcatuck River and Little Narragansett Bay: $450,000 to RI Department of Environmental Management and CT Department of Energy and Environmental Protection.
- Plan to Restore Water Quality in Hundred Acre Cove: $132,338 to Save The Bay.
- Permeable Reactive Barrier (PRB) for Lagoon Pond: $250,000 to Martha's Vineyard Commission.
- Field-Scale Validation of PRBs for Groundwater Nitrogen Remediation: $298,598 to Woods Hole Oceanographic Institution.
- Index of Biotic Integrity: $250,000 to NEIWPCC.
- Catalyzing Transformative Change in the Taunton River Watershed: $100,000 to Southeast Regional Planning and Economic Development District.
- Watershed Planning and Green Infrastructure at Spectacle Pond: $187,500 to City of Cranston, RI.
- Green Infrastructure Training and Employment: $198,891 to Groundwork Rhode Island.
- Non-Structural Stormwater Approaches: $108,750 to City of Newport, RI.
- Salt Marsh Resilience: $223,533 to Buzzards Bay Coalition.
- Buzzards Bay Stormwater Collaborative: $176,581 to Massachusetts Maritime Academy (MMA).
- Upper Bass River Watershed Restoration Project: $253,779 to Friends of Bass River (FOBR).
- Ecosystem Conference for Pleasant Bay: $8,984 to Center for Coastal Studies.
- Planning a Ghost Gear Removal Program for Rhode Island: $17,385 to Commercial Fisheries Research Foundation.

Senator Jack Reed of Rhode Island speaking during the 2022 SWIG Awards at the Roger Williams Park Botanical Center. Photo credit: Restore America's Estuaries

SNEP Network

Martha Sheils, Director

Bylaw Review Training In Middleborough, MA (10/27/2022). Photo Credit: Southeastern Regional Planning And Economic Development District

In 2022, The SNEP Network helped to build capacity at the organizational, community, and regional levels. Together, Network partners collaborated with communities, municipal, state, federal and tribal entities to identify common roadblocks to advance regional stormwater management, climate resilience, and funding and financing goals. This past year, the Network expanded its capacity in planning and community engagement by bringing in the Southeastern Regional Planning Economic and Development District (SRPEDD) as a Network partner.

Increased Technical Assistance Throughout the SNEP Region. In September, the SNEP Network selected 10 community assistance projects, awarding free technical assistance to 8 communities and 1 Tribe:

- Groundwork Southcoast With New Bedford, MA
- Town of Marion, MA
- Town of North Kingstown, RI
- Town of Shrewsbury, MA
- Middletown, RI
- Buzzards Bay Coalition
- Burrillville Land Trust
- Mashpee Wampanoag And Town of Mashpee, MA
- Shrewsbury, MA
- South Kingstown, RI

A complete list can be found HERE.

Completed Projects and Initiatives. This year, the Network has completed many of its multi-year projects and initiatives, including the following:

- The New England Stormwater Retrofit Manual: The New England Stormwater Retrofit Guidance 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 StewMAP project: The Stewardship Mapping and Assessment Project (Stew-Map) project team completed the final analysis of the survey results and wrapped up the project. Stew-Map is a survey and public database designed to map where stewardship organizations work and how they are connected to each other with the goal of strengthening community capacity for stewardship in this region. The products, interactive visualizations mapping organizational networks, and public data are now available to download on the SNEP Network Website.
- Bylaw Review Curriculum: SNEP Network partners Mass Audubon, Cape Cod Commission and the Blackstone Watershed Collaborative completed the Bylaw Review Curriculum and successfully delivered two workshops in Worcester and Middleborough, Massachusetts. The training will help participants understand the links between climate impacts and land use, define nature-based solutions, green infrastructure, and low impact development; understand local regulations in reducing costs and impacts, and gain experience through an interactive exercise in using the bylaw review tool to prioritize local updates.
- Buffer Restoration Guide: As a result of the technical assistance from the SNEP Network to assist with buffer restoration along the Maidford River, the SNEP Network developed and launched a buffer restoration guide. This guide is intended to assist public and private property owners in RI and southeast MA who are interested in restoring and improving buffers along a river, pond, lake or the coast.
- Town of Charlestown: For the past two years, the SNEP Network has assisted the Town of Charlestown with drafting a conservation development ordinance for new subdivisions that incorporates stormwater management and low impact development (LID) standards. The Town of Charlestown successfully adopted the conservation development ordinance on August 31st, 2022.
- The Canoe River Aquifer Pilot Project: Through a facilitative process, the Canoe River Aquifer project team assisted the 5 communities in the Canoe River Aquifer to narrow down a list of over 200 localized projects down to 16 prioritized project clusters. This prioritized list will allow the communities to develop project proposals to seek implementation funding.
- Town of Portsmouth: The SNEP Portsmouth project team, led by Throwe Environmental and Elizabeth Scott, published the "Climate Resilience Planning and Financing Strategy Report". The report details findings and recommendations after a series of multiple assessments and planning exercises with the Town of Portsmouth, Rhode Island.