



# The Tidal Page

News of the Rhode Island Salt Ponds

[saltpondscoalition.org](http://saltpondscoalition.org)

Fall 2023

*Watershed Council for RI Salt Ponds, Est. 1985*

## SPC IN THE COMMUNITY: 2023 RECAP

*by Ann Whaley-Tobin*



SPC completed another successful year of educational events. Our education programming is divided into a few categories: field trips, public programming, and camps.

We hosted four field trips for local schools that utilized our newly developed science curriculum and activities that aligned with state and national standards. About 150 students in the 3rd and 4th grades participated in these activities learning about our salt ponds including what kind of plants and animals live in the ponds, how they protect themselves from predators, the ways in which they have adapted to living in the ponds, why good water quality is so important, and more. We utilized classroom space at the Kettle Pond Visitor Center, as well as working pond-side with the students including catch and release fishing with a seine net to give them hands-on exposure to wildlife. We were pleased to hear very positive feedback from the students and teachers using this new programming.

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# Message from the President



Dear Members,

As 2023 wraps up, I look back at what we have accomplished as well as the challenges we faced. In October, we finished our 38th year of water quality monitoring. This program remains a cornerstone of everything that we do. Bacteria results for this season are up on our webpage, and analysis of our 2022 sampling data has just begun.

We continue to be engaged in several projects aimed at improving our pond environment. This is the third year of a cooperative program between Charlestown's Waste Water Management Department, the University of Rhode Island (URI), Save the Bay, and SPC as we investigate improved septic system technology in the eastern Charlestown and Green Hill areas. We continue to work with Narragansett to address flooding and improving flow in the Harbour Island section of Point Judith Pond. For several years, Alicia and I have participated in a group facilitated by URI focused on investigating and addressing the impacts of shoreline change and sea level rise. Recently, we have been working with the Town of Charlestown to address beach wash-over leading to filling of the Ninigret breachway channel. Funding proposals are submitted for planning and engineering work. And finally, many members have expressed concern about the reduced shellfish catch in the ponds. Earlier we worked with RI Department of Environmental Management as they are developing plans to address the issue of natural shellfish population decline throughout the entire state of Rhode Island.

Our July fundraiser at the Weekapaug Yacht Club was a huge success, thanks to our volunteers who solicited the auction items and the businesses and artisans who donated goods and services. We recently celebrated our many SPC volunteers that made all our programs so successful. From our education volunteers to our Pond Watchers, none of what we do would be possible without them. Speaking of volunteers, we are in great need for folks to serve on committees, the board of directors, and volunteer in other programs and small projects. We already anticipate needing multiple new Pond Watchers for next season on various ponds including Potter, Green Hill, and Ninigret Ponds.

Your support of Salt Ponds Coalition is greatly appreciated. Please remember us in your end-of-year giving. Thank you and have a safe and healthy holiday season!



Salt Ponds Coalition is the officially designated Rhode Island watershed council for the coastal ponds region.



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# A BIG THANK YOU TO ALL OF OUR VOLUNTEERS

by Art Ganz

Salt Ponds Coalition recently invited our many volunteers to join us at The General Stanton Inn in the heart of Charlestown. **Nearly 50 Pond Watchers, education volunteers, committee members, and directors came together to enjoy a splendid meal and celebrated this year's achievements.**

This year marked the 38th year of continuous water quality monitoring which involved 30 volunteers testing 26 sites in our major salt ponds. SPC is so thankful for the many people who make this program possible including Sheila Andrew and Julia Murphy who have served as Pond Watcher Program Co-Coordinator for the past two years. We are also happy to partner with URI Watershed Watch, led by Elizabeth Herron, which handles all of the lab analysis for our samples.



*A group shot of the volunteers that attended our appreciation event this year!*

Many of our Pond Watchers have been sampling for many years; in some cases, nearly two decades. This year we want to recognize these Pond Watchers who reached the following milestones:

- **Five Years:** Rachel Lyons, Anthony Brunetti, and Susan Marcus
- **Ten Years:** Nikki Vanasse
- **Fifteen Years:** Bruce Loeckler

Our education programming has grown over the past few years and includes everything from free public programming both for children and adults as well as programming for students and campers. Ann Whaley-Tobin and Fred Seebeck along with many dedicated volunteers have conducted programs reaching over 300 people both pond-side and in the Kettle Pond Visitor Center classrooms. The goal of these programs is to foster a connection and a sense of stewardship for our salt ponds.

Behind all our activities is our multi-talented Executive Director Alicia Schaffner and our capable Office Administrator Angela Brunetti. They are involved in every aspect of the SPC mission including recruiting and working with volunteers.

We are grateful for all those who give their time to Salt Ponds Coalition.



# ANNUAL AUCTION • 2023 Donors

## Businesses



Adventureland - Narragansett	Pure Barre Rhode Island - Cranston
Arturo Joe's	RI Paddle Sports
Bedrock Tree Farm	Rose Hill Golf Club
Caf Bar	Shelter Harbor Inn +
Clark Farms	The Farmhouse Kitchen & Bar
Contemporary Theater Company	Simple Pleasures
Duck Press Restaurant and Bar	Snug Harbor Marina
Fun	Sons of Liberty
Harbour Island Vintners	The Break Hotel
Hoofs Restaurant	The Cafe
Jerry's Paint and Hardware	The Coastal Cabin Restaurant
J. McLaughlin	The Cooked Goose
Manion's Vanilla	The Glass Station
Matunuck Oyster Bar	The Granite Theatre
Megrew's Boats	The Haversham
Monahan's Clam Shack by the Sea	The Industrious Spirits Company
Mystic Aquarium	The United Theatre
Mystic Seaport Museum	Theatre by the Sea
NBX Bikes - Narragansett	Thurston Quantum Sails & Canvas
Newport Restaurant Group	Two Ten Oyster Bar and Grill
Ocean House Marina	Wakefield Liquors
O'Neils Package Store	Weekapaug Golf Club
	West Marine - Narragansett

## Artisans

Allen Hazard of The Purple Shell
Annie Wildey
Diana Sartor
Eric Lutes
Jane Edmonds of Coastal Driftwood Designs
John Repoza
Matthew Novakovich of Ocean State Spearguns
Richard Sartor
Rick Black of Black Forest Custom Woodworks

## Individual Donors

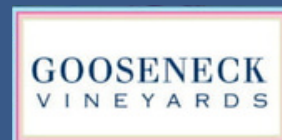
Ann Whaley-Tobin and Jim Tobin	Jason and Keely Krantz
Bill McCusker and Elise Torello	Kelley Novakovich
Caroline Crosson Gilpin	Mary and Vinnie Daboul
Gina Ankner	Susan Carr-Sparkman

2023 marked SPC's first in-person fundraising event since 2019. The event was held in mid-July at the Weekapaug Yacht Club and we had nearly 140 people in attendance. Thank you to all those who attended, as well as those who bid on items in our online auction. Because of you we were able to net over \$16,000.

Aside from memberships and other contributions, SPC relies on its annual summer fundraiser to meet its fiscal needs. This year's online auction which culminated at the live event was a success thanks to the local businesses and artists who made it possible. Don't forget to shop local and support these businesses and artisans.

SPC also couldn't have made this event happen without the Board Members and volunteers behind the scenes who donated their time and efforts to solicit these businesses.

Also, a special thank you to our event vendors!



# SPC IN THE COMMUNITY: 2023 RECAP

(CONTINUED FROM PAGE 1)

SPC also conducted five public Salt Pond Safaris as well as additional ones for local camps and a girl scout troop utilizing both Ninigret and Quonochontaug Ponds. Very similar to our field trips, we use a 30-foot seine net to see what lives in the ponds. Participants get to see various kinds of crabs, fish and jellies. This year we worked with over 125 children between our free public safaris and camp programs. I encourage everyone to attend a safari next year, even if you don't bring children with you! It's a great opportunity to witness the enthusiasm of program participants and see the benefits of your organization at work.



*SPC Executive Director working with a group of 3rd grade students on a field trip this past spring.*

We are very thankful for the volunteers who help to make these programs so successful. None could be done without the help of Board members Susan Carr and John Crandall, SPC members Fred Seebeck, Sara Connor, Sue Donaghy, Tracey Maron, and Kent Kreutler, and student volunteer Lexie Barry.

This summer we hosted several opportunities for adults to learn more about the salt ponds. Our President Art Ganz led a beach walk on East Beach for 16 adults. He focused his talk on beach erosion, dune restoration, and how important our barrier beaches are for pond ecology. Additionally, we were involved in three kayak trips this summer. During the first on Ninigret Pond, Art led the tour of 19 participants from his boat speaking about pond ecology and historically significant places. Alicia led us in a kayak along with volunteers Elise Torello and Bill McCusker on safety patrol. Additionally, we co-hosted a pond trip on Quonochontaug Pond with the Quonochontaug Conservation Collaborative (QCC). Art and QCC Leader Peter Mogielnicki led the group of 20 participants around the pond. Finally, we also co-hosted a nighttime paddle of 20 participants with the Charlestown Land Trust's Executive Director Angela Brunetti and CLT Board Member Bill McCusker on Ninigret Pond. This paddle focused on the importance of land protection for water quality in the salt ponds with the added bonus of looking for comb jellies as they glow in the ponds at night.

I hope this has provided an overview of SPC's efforts to enhance its educational programs for our children and adult populations to provide opportunities for the public to enjoy, learn about, and save our salt pond communities. We are now planning and looking forward to the program for next year. Input/suggestions are always welcome. Please consider joining us as a volunteer or participant in 2024!

# COASTAL RESILIENCE AND THE SALT PONDS

In August, SPC welcomed Pam Rubinoff to speak to our members at SPC's Annual Meeting. Pam is the Coastal Resilience Specialist at the University of Rhode Island Coastal Resources Center/RI Sea Grant. She spoke to us about coastal resilience in the face of changing climate conditions which are bringing increased temperatures, heavier rainfall, increased sea level rise, and more.

Because so many of our members live on, work on, or rely on the ponds in some way, Pam emphasized how important it is to "know your risk, make a plan, and take action" in light of sea level rise and climate change. There have been visible changes to our salt ponds and to our coastline over the past few years. These changes are only going to continue into the future.

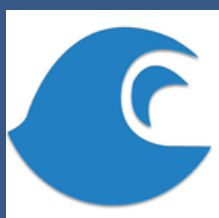
There are tools that homeowners, local municipalities, and concerned citizens can use to document changes and plan for the future. Three of those tools are outlined below. Scan the QR codes to learn more!



**CoastSnap** is an international network of simple camera mounts at beaches that invite the public to take a photo and share it to a website. Share your photos from iconic beaches to help us better understand and manage our dynamic coast. In Rhode Island there are CoastSnap cradles located at East Matunuck State Beach in South Kingstown and Misquamicut State Beach in Westerly.



[mycoast.org/ri/coastsnap/about](http://mycoast.org/ri/coastsnap/about)



**MyCoast:RI** is a portal to collect and analyze photos of the RI shoreline. Information collected is used to assess the impact of flood hazards today during storms and King Tides, and to illustrate possible future conditions. These photos are linked to data about weather and tides, and help stakeholders such as government agencies, business owners, and residents to understand shoreline change and make informed decisions.



[mycoast.org/ri](http://mycoast.org/ri)



**STORMTOOLS** is a method to map storm inundation, with and without sea level rise, for varying return period storms that covers all of Rhode Island's coastal waters. Predictions are provided that show water extent and depth at any given point for nuisance floods and various storm scenarios at a 95% confidence interval.



[stormtools-mainpage-crc-uri.hub.arcgis.com/](http://stormtools-mainpage-crc-uri.hub.arcgis.com/)

# CHANGES IN SALT POND ECOLOGY

by Art Ganz  
and Alicia Schaffner

We continue to observe changes in our coastal ponds, and finding appropriate solutions can be challenging to say the least.

Over the past six months, heavy rainfall has increased nutrient (nitrogen) loading in the ponds. Combining that with increased water temperatures has hastened an imbalance in the equilibrium of producers, consumers and decomposers within the ecosystem. While we don't have the actual nutrient numbers from this year's sampling season yet, we can see visual changes. The most noticeable is the increase of macro-algae which is smothering the bottom and washing up along the shoreline. Between its over-abundance and incomplete decomposition, pond sediments have changed from a well-oxygenated sand to an organic muck.

Additionally, we know there are changes to seagrasses as well. There has been a marked overall decrease in seagrass population in the salt ponds over the past ten years. The loss seems to be primarily eelgrass as Widgeongrass populations have remained stable. We are awaiting a final report from the Narragansett Bay Estuary Program as to the full extent of the changes in the ponds. We are hoping to be able to correlate changes in our water quality data to changes in these grass populations. The decline is most likely due to nutrient enrichment and water temperature. Seagrasses are an integral part of the coastal ponds ecosystem. They provide sediment stabilization and serve as a vital habitat and nursery for both fish and shellfish.

Throughout the sampling season, we do get results from our bacterial testing every other week. We monitor for two types of bacteria: Enterococcus and Fecal Coliform. High levels of Enterococcus impact swimming and high levels of Coliform impact shellfishing. Ironically there is no correlation between the two. The FDA uses Coliform to certify waters for shellfishing as part of the National Shellfish Sanitation Program. And yes, we can have waters closed to swimming where shellfishing is allowed and vice-versa. We actually saw instances of that this year in the ponds. Overall, bacteria levels in the ponds are a bit better than last year, despite the rain. Sites that are regularly a concern in Point Judith and Green Hill Ponds continue to have impaired water quality.



*Scan the QR code to  
see SPC's 2023  
bacteria data results.*

**What can we do about it?** Flushing the ponds helps, which includes regular maintenance of breachways. Septic issues need to be addressed. Substandard systems should be replaced and all systems need to be regularly maintained. Those that live in the coastal pond watershed should abstain from using fertilizers because nutrients not absorbed into the soil end up in the ponds during rainstorms or when lawns are watered!



# UPDATE: NITROGEN REDUCING INITIATIVE

By Matt Dowling  
& Kristen Hemphill

## Introduction

In the Fall of 2021 the Town of Charlestown, partnered with the Salt Pond Coalition, Save the Bay, and the New England Onsite Wastewater Training Program, received \$749,999 from the US EPA Southeast New England Program to holistically manage pollution from onsite wastewater treatment systems (OWTS) (i.e. septic systems) and stormwater in the subwatershed of Greater Allen's Cove and Eastern Ninigret Pond (the "Pilot Watershed"), and to transfer lessons learned through hands-on training to create a guidance document for other municipalities. This project aims to improve the groundwater and surface water quality through the replacement of conventional, substandard or failing OWTS in the Pilot Watershed to reduce nitrogen inputs .

Nitrogen is a primary pollutant that emanates from OWTS effluent into groundwater. This groundwater is the only source of drinking water in Charlestown and is the primary source in the entire salt ponds region. Further, groundwater is the largest input of freshwater to our salt ponds and elevated groundwater nitrogen concentrations can substantially impact surface water quality. Nearly 80% of groundwater nitrogen in the densely developed coastal areas of Charlestown salt ponds region originate from OWTS effluent, where 70% of OWTS still utilize older conventional and substandard technologies. A statistically significant relationship of groundwater nitrogen concentrations to the density of OWTS has been determined with a mean (average) groundwater nitrogen concentration in our coastal aquifers of >3 mg/L, indicative of "high risk" for source water pollution. In 2011, the RIDEM stipulated that a 61% reduction of nitrogen loading into Green Hill Pond and Eastern Ninigret Pond was required to meet its established eutrophication index for impaired water quality.

Under the grant program, we have established a cost-sharing mechanism to assist selected OWTS owners conduct in-kind replacement of older conventional or substandard OWTS with modern nitrogen reducing OWTS in high-risk areas of the Pilot Watershed in an effort to reduce nitrogen loading. Each older system upgraded under this program can reduce the nitrogen loading from that lot by an average of 66%!

## New Developments

We have completed a detailed risk-based assessment of groundwater nitrogen loading within the Pilot Watershed boundary to determine site selection for OWTS upgrades. Throughout our grant process, modeling assessments have been completed to ensure allocation of grant funds are directed to sites that contribute the highest nitrogen loading in high-risk locations (fig.1).

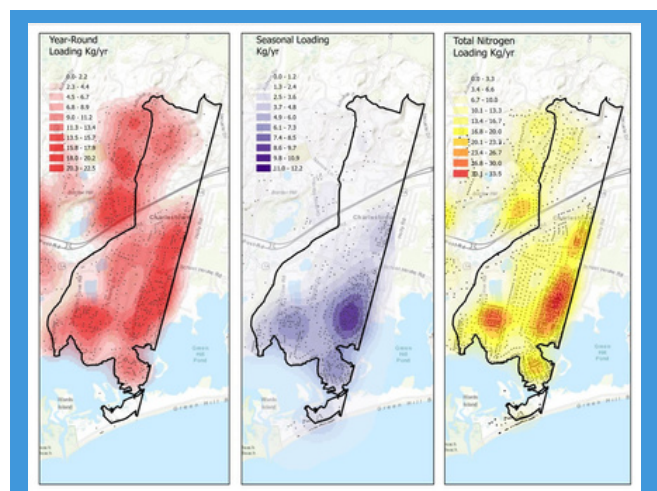


Fig. 1 – Nitrogen loading from year-round dwellings (left panel), seasonal only dwellings (middle) and total nitrogen loading.



Recent findings indicate that nitrogen loading to coastal watersheds from seasonally occupied homes with non-modern OWTS exceeds that from year-round occupied homes with nitrogen reducing technologies.

Recently two additional OWTS were upgraded under this program. We have also received commitments from seven additional highly ranked substandard septic system owners located in our delineated areas to switch their systems by 2025. During the installation of one of the new grant-funded OWTS, the Town designed and installed a “pan lysimeter” to collect final discharged wastewater effluent form beneath the drainfield. This will allow treated, post soil treatment area (STA) effluent monitoring to determine the pollutant reduction efficacy of the STA. We expect to install pan lysimeters beneath STAs in each of the next seven upgraded OWTS under this program to assess various STA options. Thus far, with the OWTS upgraded under this program we have realized a total net reduction of N loading to our Pilot Watershed of approximately 86.61 kg/yr, with seven more systems pending installation!

### **Continued Monitoring and Results**

The Town along with the New England Onsite Wastewater Training Program, URI Onsite Wastewater Resource Center and the URI Laboratory of Soil Ecology and Microbiology continually collect and analyze final OWTS effluent from our 20 upgraded grant funded systems from this and previous projects. Additionally, we continue to make substantial progress with the implementation of the four experimental nitrogen reducing layered soil treatment area systems (LSTA) that were installed in 2022 under this grant. Monthly sampling events of LSTA system influent and post treatment effluent were recently conducted. The LSTA data analysis indicates that the system efficacy is very promising with near 90% total nitrogen reduction!

### **Community Outreach**

The project partners have taken a multifaceted approach to providing outreach for this program to keep the community engaged and to ensure that the allocation of our funding is representative of the project partners and townspeople’s objectives. Some of our recent community outreach events include “Science Sunday” at the Kettle Pond Visitor Center, community listening sessions, and future watershed celebration days. We are developing materials and talks/events to address the most common misconceptions, questions and concern homeowners share with URI and Town of Charlestown staff during our community engagement events. Our Charlestown farmer’s market program was successful in facilitating community engagement and generating interest in our initiative this summer. Additionally, the New England Onsite Wastewater Training Center launched an online self-paced class to educate people on nitrogen in the environment, and hosted an LSTA informational class to educate designers, installers, and industry professionals on the systems, in addition to their annually offered classes.

**More Resources:**



[charlestownri.gov/wastewater-management](http://charlestownri.gov/wastewater-management)



[web.uri.edu/owt/](http://web.uri.edu/owt/)

*Editor's Note: Matt Dowling is the Town of Charlestown's On-Site Wastewater Manager/Environmental Scientist and Kristen Hemphill is the Town of Charlestown Environmental Scientist.*

# WE APPRECIATE ALL YOU'VE GIVEN IN 2023

I want to sincerely thank you for all that you have done for SPC in the past year. Without the contributions from our members and volunteers, none of the work that we do would be possible. As the year comes to a close, please consider donating to the Salt Ponds Coalition as part of your **End-of-Year Giving**. Every dollar helps to protect our salt ponds for future generations.

This year, Salt Ponds Coalition:

- Completed our 38th year of water quality monitoring of over 25 stations across the six major salt ponds.
- Worked with multiple school groups, children and their families, and summer campers to create the pond stewards of tomorrow.
- Hosted multiple kayak trips, a beach walk, and a speaker event to engage SPC members, and helped them explore the ponds and learn about the issues they are facing.
- Partnered with multiple towns and other stakeholders to work on projects to learn more about our salt ponds environment and find ways to improve water quality conditions.

Next year, we hope to continue this work and as always grow our reach and impact. And we need your continued help. Please consider SPC in your end-of-year giving plans. **And we hope that you and your family have a safe and wonderful holiday!**

Thank you!

*Alicia*



## YES! I WANT TO GIVE

Name: \_\_\_\_\_

Email: \_\_\_\_\_

Address: \_\_\_\_\_

Donation: \_\_\_\_\_



Want to donate online?  
Scan the QR code with  
the camera of your  
smart device.

[saltpondscoalition.org/donate/](https://saltpondscoalition.org/donate/)

Please note End of Year Donations are in addition to Membership contributions. To renew or join SPC, please use form on the next page.

## GIFTS FOR THE HOLIDAYS

Looking for a gift for the pond-lover in your life and want to support SPC at the same time?

**Email [angela@joinsaltponds.com](mailto:angela@joinsaltponds.com) to order!**

### Salt Ponds Coalition Ballcap: \$20

Keep the sun out of your eyes with our classic ballcap available in **FIVE colors**: coral, red, white, green, khaki, and pink.



### Salt Ponds Coalition "RuMe" Mini-Tote: \$15



This 11 X 11 tote is perfect for farmers markets, beach trips, and more. It also **easily folds** to fit in a purse or pocket.

### Salt Ponds Coalition Polo: \$30

This blue polo is embroidered with the Salt Ponds Coalition logo. Comes in both men's and women's sizes.



### SPC Long-Sleeve Tee: \$25



We only have a few of these long-sleeve white tees left! (Sizes small and XL only.) Grab yours before they are gone!

Visit us online at [saltpondscoalition.org](http://saltpondscoalition.org) or scan the QR code with the camera of your smart device.



**FOLLOW US:**



# JOIN US TODAY

*Because It Takes A Coalition To Protect RI Salt Ponds*

**YES!** I want to show my support for Salt Ponds Coalition and my commitment to protecting the irreplaceable salt ponds that make Rhode Island so special.

To ensure our salt ponds are always protected, cared for, and shared, I am joining SPC with a generous membership contribution of:

Contributing ..... \$45 - \$74  
Supporting ..... \$75 - \$149  
Sustaining ..... \$150 - \$249  
Advocate ..... \$250 - \$499  
Steward ..... \$500 - \$999  
Benefactor ... \$1000 - \$2499  
Patron ..... \$2500+

Memberships last for a year from the date they are processed.

Members receive The Tidal Page Newsletter as well as electronic newsletters. Please include valid mailing and email address below!

☐ I want to be a Station Sponsor! (\$700+ membership)

**Visit [saltpondscoalition.org](http://saltpondscoalition.org) to sign up online.**

Or complete this tear out form and mail to:

**Salt Ponds Coalition, P.O. Box 875, Charlestown, RI 02813**

Name \_\_\_\_\_

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Your information will never be shared.  
Salt Ponds Coalition is a 501(c)(3) non-profit.  
Your membership donation is tax deductible.

**Got Questions? 401-322-3068**



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