

Tides

MAGAZINE



Summer 2023: Outlier or New Normal?

SAVE THE BAY®

NARRAGANSETT BAY

Top 20 Most
Closed Beaches

Meet the Artist
Behind Our Murals

Navigating Your
Public Access Rights

FROM THE INTERIM DIRECTOR

Our Bay Still Needs Us

The transformation of Narragansett Bay waters from polluted, unhealthy, and unsafe to cleaner, healthier and more accessible, is an inspiring success story that we all can feel proud of. As the people's voice for Narragansett Bay for over five decades, Save The Bay has championed the protection and improvement of Narragansett Bay. The results have been spectacular.

Yet, this summer's record number of beach closure days—over 200 of them, spread around the Bay and south coast—is a reminder that Save The Bay's mission is as urgent as ever. As you will read in this issue of Tides, a series of intense rainstorms fouled Narragansett Bay and its rivers with pollution from across the entirety of its 1,754-square-mile watershed. These storms (which are becoming more frequent and intense due to a rapidly warming climate) shocked the Bay system with pet and animal waste, petroleum, fertilizer and pesticides, and litter.

While today's Bay challenges and threats are complex—a changing climate, new and barely visible contaminants, and pollution from the land that is pushed into the Bay during rainstorms—we can still have impact. We can lead by example: disposing of trash properly; tending to lawns and gardens in ways that keep kids, pets and local waters safe from pollution; and demanding state and local government enforce clean water laws and invest in infrastructure that will clean up the Bay and prevent further harm.



As a native Rhode Islander whose local swimming beach was closed to pollution during the 1970s, Save The Bay's mission continues to resonate with me deeply. For over three decades, I've had the privilege of advocating for this organization and know firsthand the power of the Save The Bay community—a community in which members, volunteers, and Bay enthusiasts have tackled age-old pollution sources and will certainly work together to meet the challenges we face today. I look forward to sharing this issue of Tides, and the success we're sure to continue to make together, with you.

With appreciation,

Topher Hamblett

Topher Hamblett
Interim Executive Director

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ON THE COVER:

Summer 2023 brought with it the most beach closure days Rhode Island has seen to date. The causes of these closures are varied, but at Scarborough Beach, one is clear: pollution, stemming from a storm drain that pours directly into coastal waters.

What's That Flag? ----->

Strategic Plan Pillar: Education

Save The Bay staff are working toward the goals set forth in our 2027 Strategic Plan, and we look forward to sharing our progress with you! In this issue you will see markers, like the one shown above, noting that the story you're reading relates to a Strategic Plan initiative. Make note of which of our plan's three pillars the story refers to—Education, Advocacy, or DEI—and learn more at savebay.org/strategic-plan-2027.

TIDES MAGAZINE

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Summer isn't the only time to enjoy Narragansett Bay!

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SAVE THE BAY.
NARRAGANSETT BAY

Art Mimics Nature



BY LEANNE DANIELSEN,
EVENTS MANAGER

MEET AMY BARTLETT WRIGHT, A RHODE ISLAND ARTIST WHO SPECIALIZES IN BRINGING NATURE MURALS TO LIFE

When art and nature lovers think of paintings that portray the environment in a very engaging way, they likely think of Rhode Island artist Amy Bartlett Wright. If they don't presently, they certainly will when they visit Save The Bay's Hamilton Family Aquarium in Newport this winter. There they will find three murals that represent specific Bay-related habitats: rocky shore, freshwater wetland and sandy shore.

Amy has worked for 35 years as a professional artist, muralist and natural science illustrator. She specializes in portraying animals in their environments in a way that creates a sense of space and dimension.

These murals are part of a long-standing relationship the artist has with Save The Bay. Amy created the "Our Living Bay" mural at The Bay Center in Providence in 2005, a facility that is used regularly for education programs.

"I want my art to hold people," she says. "I was thrilled Save The Bay had the confidence in me to tackle this."

Amy practices plein-air painting, which means that she paints an outdoor scene by standing in front of it with her canvas and easel. Painting from life leads to more expressive painting, guiding the artist for future studio work and resulting in a piece that convincingly combines realism and expression.

When I visited Amy in her studio this summer, she was in the process of working on the 27-by-5-foot freshwater wetland mural filled with wildlife based on studies she'd completed in the past. The animals in each scene come from painting and drawing those same species previously; some from life, others from taxidermied models.

"This is with the intention of making the animals fit into the landscape swimming, walking or flying or just above the water surface."

Through a series of smaller renderings, the winning designs became the working models.

Embarking on the task of creating three large murals in March 2022 had its challenges, but Amy wasn't daunted. In fact, she has tackled much larger murals, including a 30,000-square-foot mural in Boston.

"Size is not always what determines the challenge. It's often the parameters."

In addition to size, the parameters include content, design and compatibility with fabrication and multiple wall surfaces. In the case of the murals at Save The Bay's Hamilton Family Aquarium, the paintings are on canvas, which is then either affixed to the



wall or inserted into a plastic sleeve, depending on the location.

"The science and parameters of each project have to be met, but it's the art that is the magic touch you can't define. The challenge was thrilling," she says.

"[The aquarium] is a state-of-the-art venue. It has to feel like the place and teach the viewer about Narragansett Bay." Amy emphasizes how much Save The Bay has done to address important issues. "This is one way I can do more and I am just grateful. We want to relay the love and caring we have for the land and the water that has to go on after us." ■



Creating truly immersive wildlife murals involves a multi-step process that, for Amy, involves marking out the mural placement (left) and even building 3D models (above).



Amy Bartlett Wright (top) captures the beauty of the Bay's wildlife and habitats in a series of murals (above and opposite page) destined for Save The Bay's Hamilton Family Aquarium, opening this winter.



Dr. Catie Alves: Skydiving Divemaster – and a Coastkeeper From All Angles



BY COURTNEY NICOLSON,
SOCIAL MEDIA AND
DIGITAL CONTENT SPECIALIST

Meet Dr. Catie Alves, Save The Bay's new South County Coastkeeper.

Tell us about your personal history with Narragansett Bay.

I attended school and summer camp in Narragansett, explored the Narrow River year-round, and spent a great deal of time in Westerly with my Gram. These experiences sparked my passion for the ocean, which grew through field trips to the coast with enthusiastic teachers. I became fascinated with nature – it was a mystery I wanted to understand more about. I studied biology at Connecticut College, and obtained my Ph.D. in ecology from the University of North Carolina at Chapel Hill. Returning home to the South Coast in an advocacy position is a dream come true.



South County Coastkeeper Dr. Catie Alves makes the most of her new work environment, meeting with community members outdoors to discuss environmental concerns.

Do you have any favorite Bay-related memories?

Going skydiving over Narragansett Bay in 2012 with my now-husband! It's really special to see the Bay from that perspective and as a divemaster. Spending time with my family at the mouth of Narrow River in Narragansett in the late summer, watching the sunset over the river, and the moon rise over the Bay while we swim with bioluminescent ctenophores.

How did you hear about Save The Bay?

Save The Bay came to my sixth grade class to teach about watersheds and Bay species. We explored the salt marsh on Narrow River in Narragansett. Those were key experiences that contributed to my fascination with nature and my desire to become a scientist.

Describe your role as South County Coastkeeper.

My job is affiliated with the Waterkeeper Alliance, which is a global organization with over 300 programs. I lead environmental advocacy initiatives addressing climate change, water pollution, and public access in the Wood-Pawcatuck watershed and Little Narragansett Bay. I collaborate with municipal, state, and federal agencies, local nonprofits, and concerned residents to conduct long-term watershed monitoring, advocate for green infrastructure, and develop and implement habitat restoration plans to improve coastal resilience. My day-to-day work varies unlike any other job I've had! One day I'm kayaking in the Wood River with partners, another day I'm in meetings discussing the latest environmental concerns or in the office reading about stormwater management techniques.

What excites you about the future of Save The Bay?

Uniting academics, nonprofits and municipalities to collect and compile data that supports South Coast advocacy and restoration. There's a pressing need to co-develop innovative science-based solutions in a changing world. I truly appreciate all those who support Save The Bay's mission so we can continue contributing to those solutions! ■

Save The Bay is a proud member of the Waterkeepers Alliance. Our Waterkeepers—Narragansett Baykeeper, Narragansett Bay Riverkeeper and South County Coastkeeper—are our on-the-water eyes and ears, protecting and monitoring activities around Narragansett Bay.



Of course, being outdoors takes on new meaning when it means being 10,000 feet in the air, which she tackles with the same enthusiasm as a divemaster.

Save The Bay Action Updates

Wondering what Save The Bay was up to this spring and summer?

- During the 2023 Rhode Island Legislative Session, Save The Bay made significant progress in each of this year's legislative priorities, celebrating noteworthy victories including the passage of a **shoreline access bill** that clarifies the exact location of beach on which the public can exercise its constitutional right to the shore; **improvements to solar energy siting** that incentivizes the use of already developed areas; and the establishment of a **"bottle bill" study commission** to examine the possibility of legislation that would reduce plastics pollution. (Dive into the details of the shoreline access bill on page 8.)
- Our habitat restoration team **restored over an acre of coastal habitat** at Walker Farm in Barrington, R.I. in coordination with the Town of Barrington, where 38 community volunteers planted nearly **2,000 native shrubs** in the restored salt marsh and marsh migration corridor. Across the Bay, and working with the City of Warwick, Save The Bay staff and 28 volunteers **recreated and restored a dune** along Brushneck Cove by planting **6,300 beach grass plants**.
- Save The Bay staff continued efforts to **provide public education** on the benefits of proper septic care and maintenance, as well as other environmentally-friendly practices in Charlestown, R.I. with URI's Onsite Wastewater Resource Center, the Town of Charlestown, and the Salt Ponds Coalition, and in Lakeville and Freetown, Mass. with the Southeastern Regional Planning & Economic Development District.



- At a salt marsh restoration site on the Narrow River, Save The Bay staff and volunteers planted **5,000 marsh grass plants**, working alongside the U.S. Fish & Wildlife Service. Save The Bay also partnered with the USFWS Refuges and the Coastal Program, and the Rhode Island Department of Environmental Management to monitor the success of six other salt marsh restoration sites. The effort included the banding of more than **100 saltmarsh sparrows**—an at-risk species that depends on the salt marsh for its survival. (Learn more about our salt marsh restoration efforts on page 16.)
- During Save The Bay's last summer of operations at our Exploration Center and Aquarium on Easton's Beach in Newport, our passionate staff—including 15 interns and four apprentices—welcomed and **engaged over 17,000 guests**. We look forward to continuing to offer our one-of-a-kind aquarium experience on a greater scale when we open Save The Bay's Hamilton Family Aquarium in downtown Newport this winter.
- The Save The Bay community turned up in force this season! In the spring and summer, 1,850 volunteers **removed 14,240 pounds of trash** from Bay shorelines. Meanwhile, in July, 231 swimmers participated in our annual Swim fundraiser—an effort that ultimately raised \$255,713 in support of our mission to protect and improve Narragansett Bay.

Thank You...

Save The Bay's special events are made possible thanks to the following sponsors and supporters:

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BY KENDRA BEAVER,
STAFF ATTORNEY

Navigating Your Public Access Rights

Strategic Plan Pillar: Advocacy

Accessing and using the shore has been a cornerstone of Rhode Island life since long before the state, or the state’s constitution, existed. The 1663 charter

The collective uncertainty set off a chain of events—including the creation of a legislative study commission to examine the issue—that resulted in new



Where exactly is the public’s shoreline?
Use our diagram above to interpret the location according to the latest legislation.

IF YOU SEE AN OBSTRUCTION...

At a CRMC-designated right-of-way?
Contact CRMC.

Elsewhere along the shore?
Contact local police.

that first recognized Rhode Island as a colony clearly enunciated the public’s rights and privileges of the shore. Those rights were re-stated in our initial constitution before being further strengthened in the document’s most recent 1986 amendments.

However, historical legislation left murky guidelines for those interested in exercising their shoreline rights. In recent years, it became evident that no one—not shoreline visitors, coastal homeowners, or even law enforcement—could easily identify the location of the public’s shoreline.

legislation. The 2023 Shoreline Access Law supports our rights to access the shore by drawing an actual line in the sand 10 feet landward of a recognizable high tide line, defining a public corridor.

What does that mean exactly?
The “recognizable high tide line” refers to a visible “line or mark left upon tide flats, beaches, or along shore objects that indicates the intersection of the land with the water’s surface level at the maximum height reached by a rising tide.” This line is most easily determined by a collection of physical items such as seaweed or shells, but a wet line on sandy

or rocky beach can also count if no other line is visible. (This marker includes those lines left by periodic high tides, but not those left by intense storms.)

After accessing the shore through a beach, right-of-way, or abutting shore, we can exercise our rights in the corridor that exists between the water and 10 feet landward (or inland) of the recognizable high tide line. (Keep in mind, the public does not have the right to use “land above the vegetation line, or on lawns, rocky cliffs, sea walls, or other legally constructed shoreline infrastructure,” or privately-owned amenities like decks, cabanas or beach chairs.)

Shoreline property owners retain ownership of their properties but must allow public use within the designated corridor. Property owners do not have a right to exclude the public from the area



in any way, including through verbiage, fences, or illegally constructed structures.

According to the state constitution, the public’s shoreline rights and privileges include “but are not limited to fishing, gathering seaweed, leaving the shore to swim, and passing along the shore.” While the 2023 law does not address the full extent of activities that can take

place on the public shore, at the time of this publication the CRMC and Department of Environmental Management are liberally construing the permitted uses.

The 2023 law is a victory for Rhode Islanders—but the fight for shoreline access doesn’t stop here. Save The Bay will continue to advocate for designating additional rights-of-way (ROWs) to the shore and removing obstructions to existing ROWs, enabling public access and working toward our vision of a Narragansett Bay that’s accessible to all. ■

Enjoying the shore—be it by collecting seaweed, fishing, or simply taking a stroll—is a time-honored tradition and a constitutionally protected right in the Ocean State. After years of confusion, the 2023 Shoreline Access Law offers clarity about where this right can be exercised.



THE 2023 SHORELINE ACCESS LAW
SUPPORTS OUR RIGHTS TO ACCESS THE SHORE
BY DRAWING AN ACTUAL LINE IN THE SAND
10 FEET LANDWARD OF A RECOGNIZABLE
HIGH TIDE LINE,
DEFINING A PUBLIC CORRIDOR.

Summer 2023 on Narragansett Bay:

Outlier or New Normal?

Strategic Plan Pillar: Advocacy



BY MIKE JARBEAU,
NARRAGANSETT BAYKEEPER

THE RECENT SUMMER MONTHS WERE NOTABLY PLAGUED BY INTENSE RAINSTORMS AND RECORD-BREAKING BEACH CLOSURE NUMBERS. IN THIS STORY, WE EXPLORE THE CONNECTION, WHAT WE CAN DO, AND WHAT TO EXPECT IN THE FUTURE.

For Narragansett Bay and the surrounding watershed, summer 2023 was one of extremes. High water temperatures and heavy rainfall contributed to poor water quality, including low levels of dissolved oxygen and high bacteria. These intense and unexpected conditions resulted in immediate impacts like beach and shellfishing closures—even an increase in shoreline litter—that made headlines and were apparent to residents and visitors alike. But summers like this are predicted to become closer to the norm than an outlier, and these climate change-related impacts beg larger questions for the health and future of Narragansett Bay. At Save The Bay, it's not enough to acknowledge “what” is happening. We have to dig deeper to discover the “why” so that we can help make the Bay the swimmable, fishable, healthy resource that benefits us all.

Beaches are a major part of both Rhode Island's culture and economy; every summer day, thousands of locals and tourists make their way to the shoreline to spend the day at their favorite beach. And how do they know if the water at that beach is safe for swimming? That determination is made by the Rhode Island Department of Health, the agency responsible for the licensing and regulation of beaches in the State.

From Memorial Day through Labor Day each year, the Department of Health collects more than 1,500 water samples from licensed saltwater beaches around Rhode Island, in addition to testing completed by beach managers at saltwater and freshwater beaches. When those samples indicate that bacteria levels are unsafe, the beach is closed until a clean sample is obtained.

In 2023, bacteria levels caused closures on 244 days—a number higher than the totals in both 2022 (169 days) and 2021 (182 days). 2009 was the last year that bacteria levels led to so many closures, and even then, the total only reached 230.

Save The Bay partners with the Rhode Island Department of Health to monitor several Upper Bay shorelines as part of the Urban Beach Initiative—a program started to help understand conditions at unlicensed swimming areas where, as overall Bay water quality has improved, there may be increased recreational use or opportunities for licensed beaches.

In 2023, staff and interns collected weekly samples from Memorial Day to Labor Day at Fields Point in Providence, Stillhouse Cove in Cranston, and Gaspee Point and Rocky Point in Warwick. Bacteria levels were worse at these urban locations than during any year in recent memory. Gaspee Point samples exceeded Rhode Island beach standards during all but the first two weeks. Stillhouse Cove was not far behind. Fields Point and Rocky Point results were more sporadic, but Rocky Point had the highest individual levels in mid-July, with bacteria samples coming back at almost 200 times the Rhode Island standard.



Save The Bay staff and volunteers monitor water quality to identify issues and trends that help inform our advocacy. (Below, right) A sheen surrounds a storm drain, indicating that pollutants are present during a rainstorm. (Below, left) Plastic litter is a common sight along shorelines, especially after storms.

But why, exactly, were bacteria levels so high this year?

There is a common misconception that beach closures are caused by raw sewage flowing into the Bay, but improvements to wastewater treatment facilities and Rhode Island's Cesspool Elimination Act have largely eliminated this bacteria source.

Instead, the most common source of bacteria—and the one that played the biggest role in this summer's beach closures—is polluted stormwater, or rainwater that has fallen to the ground and run across land, picking up trash, contaminants, and bacteria, before ultimately ending up in the Bay or the rivers that lead to it. (Have you ever noticed that most beach closures and almost all shellfishing closures follow a rainstorm?)

Over the past 100 years, average annual rainfall has increased by approximately 0.5 inches per decade, with strong, intense storms becoming more common. More rainfall means more rainwater which, in turn, means more contamination flowing to both freshwater and saltwater beaches. As such, increased beach closures are directly tied to changes in climate trends.



continued on next page >>>

As high bacteria levels led to beach closures throughout the region, algae blooms and extremely low dissolved oxygen levels also plagued Bay waters, bringing with them more negative impacts for both people and wildlife.

While water clarity is sometimes mistaken as an indicator of water quality, Narragansett Bay will never, and should never, resemble the crystal clear waters of the Caribbean. Like most estuaries, Narragansett Bay is a highly productive ecosystem, and what some may consider to be “murky” water is often the collection of phytoplankton, microalgae, and other living organisms that make the Bay the diverse and biologically important waterbody that it is.

But when too many nutrients—like fertilizers, and other compounds that essentially “feed” plants—are carried into the Bay by stormwater, things can get out of hand. Too many nutrients essentially fertilize the Bay, creating “blooms” of algae. As this plant matter decomposes, it uses up the available oxygen in the water that marine life needs to survive. It can also help bacteria (like the bacteria that leads to beach closures) multiply. This process reduces water clarity to the point where key species, like eelgrass, cannot photosynthesize.



The two-word answer to the question of why a Narragansett Bay summer is becoming more unpredictable is “climate change.”

As anyone who has spent time on or near the Bay can tell you, conditions are constantly changing and evolving. This has been the case since the Laurentide Ice Sheet carved what we know as Narragansett Bay approximately 20,000 years ago. Water levels continuously fluctuate along with changes in temperature, habitat, and species. However, what is different with modern climate change is the overall rate at which changes are taking place. Climate change is a critical consideration when examining our recent summer on the Bay.

The summer of 2023 may seem like an outlier at first glance, but it is clear to us at Save The Bay that these water quality challenges will persist as climate change impacts continue to affect Narragansett Bay and the watershed.

In accordance with the organization’s 2027 Strategic Plan, we will work to strengthen our impact through continued restoration and water quality work, focusing on regions that can have the biggest impact on Bay health and resilience, and working with partners to implement local solutions. ■



In summer 2023, Save The Bay’s long-term monitoring of Upper Bay dissolved oxygen levels corroborated what we heard in reports from the public, by partners and data buoys: extended periods of hypoxic (low oxygen) conditions in the Providence River and large portions of the Upper Bay throughout the month of July. Low oxygen conditions are not supportive of marine life and can lead to fish kills. Though not uncommon during the hot summer months, this hypoxic event stood out because it spanned such a wide area for such a long period of time.

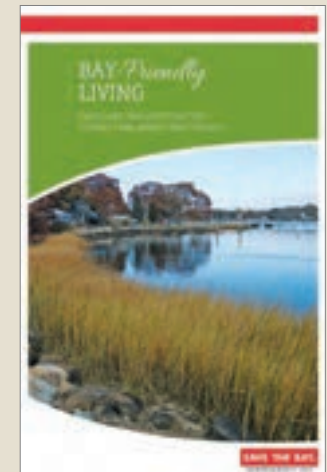
And, just as heavy rainstorms contributed to the creation of hypoxic conditions by adding nutrients to the water, they also exacerbated them. When a large amount of freshwater flows into the Bay, it creates layers of different kinds of water. Lower-salinity, less-dense water sits on top of higher-salinity, more-dense water. These layers don’t mix easily, making it difficult for dissolved oxygen in the water to reach the bottom of the Bay. The result is exactly what we observed this summer: low-oxygen conditions, and high water temperatures, coinciding with a lack of forage fish and overall poor fishing in the Upper Bay.



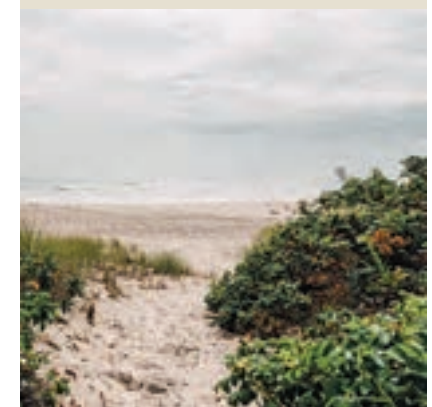
(Top of page) Water samples are collected to be tested for dissolved oxygen, while (above) a refractometer is used to monitor salinity. (Center) Stormwater flows onto Scarborough Beach in Narragansett from the adjacent roads. A sign indicates to beachgoers that the flowing stormwater is likely polluted and should be avoided.

What You Can Do

While Save The Bay works with partners to address the challenges posed by climate change, we can all contribute to improving the impacts by making day-to-day decisions at home.



Want tips on how you can live a Bay-friendly lifestyle? Visit savebay.org/bay-friendly-living to download a copy of our Bay-Friendly Living Guide today!

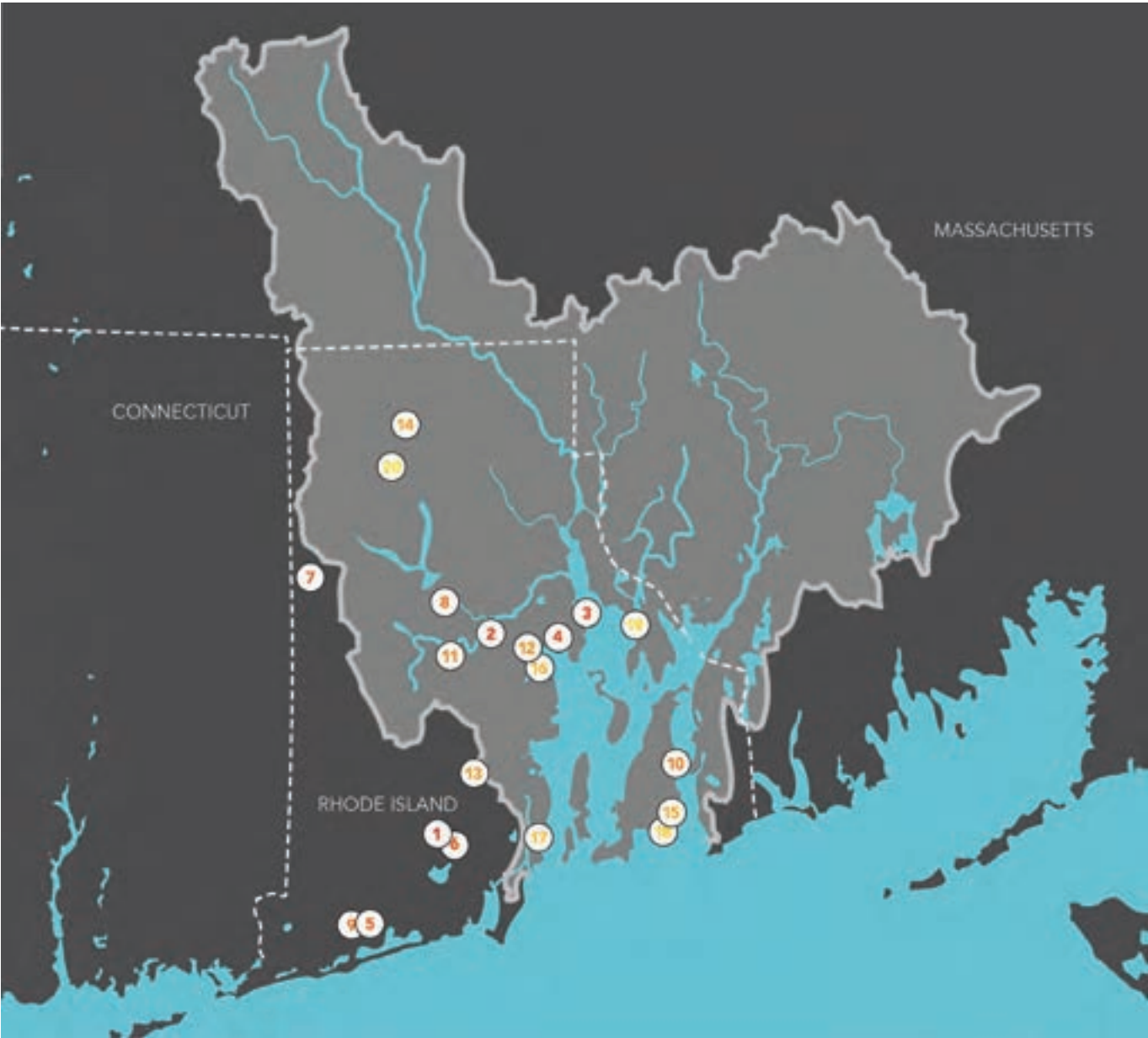


Rhode Island's Top 20 Most Closed Beaches of Summer 2023



BY KATY DORCHIES NUTINI,
DIRECTOR OF COMMUNICATIONS
AND MARKETING

Summer 2023 made headlines across the Ocean State for bringing with it the highest number of beach closures on record. The closures—caused by high bacteria levels that were, in turn, caused by extreme quantities of rain—could be spotted in just about every area of the state. Using publicly-available data, we’ve compiled and mapped the 20 most closed beaches below. Are any of your favorite beaches on the list? (Please note: In instances where multiple beaches shared a number of closure days, they have been placed in alphabetical order and numbered accordingly.)



- 1 Camp Hoffman, Kingston**
Freshwater
27 days closed
- 2 Kent County YMCA, Warwick**
Freshwater
20 days closed
- 3 Conimicut Beach, Warwick**
Saltwater
18 days closed
- 4 Oakland Beach, Warwick**
Saltwater
17 days closed
- 5 Camp Watchaug, Charlestown**
Freshwater
16 days closed
- 6 Kingston's Camp, Kingston**
Freshwater
16 days closed
- 7 Ginny-B Campground, Foster**
Freshwater
15 days closed
- 8 Hope Community Service Pond Beach, Scituate**
Freshwater
14 days closed
- 9 Burlingame State Park Picnic Area, Charlestown**
Freshwater
13 days closed
- 10 Sandy Point Beach, Portsmouth**
Saltwater
12 days closed
- 11 Briar Point Beach, Coventry**
Freshwater
9 days closed
- 12 City Park Beach, Warwick**
Saltwater
9 days closed



Oakland Beach in Warwick is #4 on the list.

- 13 Camp Canonicus, Exeter**
Freshwater
7 days closed
- 14 Harmony Hill School, Chepachet**
Freshwater
7 days closed
- 15 Peabody's Beach, Middletown**
Saltwater
6 days closed
- 16 Goddard State Park Beach, Warwick**
Saltwater
5 days closed
- 17 Bonnet Shores Beach Club, Narragansett**
Saltwater
4 days closed
- 18 Third Beach, Middletown**
Saltwater
4 days closed
- 19 Warren Town Beach, Warren**
Saltwater
4 days closed
- 20 Camp Ruggles, Scituate**
Freshwater
2 days closed

Play It Safe!

Want to know if your favorite beach is safe to visit? The Rhode Island Department of Health maintains a current and running list of beach closures that will give you the information you need to plan your trip accordingly. Visit health.ri.gov/data/beaches/#closures or call the Beach Hotline at 401-222-2751 to learn more.

Lifting Our Marshes Up

ELEVATING THE NEEDS OF SALT MARSHES IN HABITAT ADAPTATION EFFORTS



BY BEN GASPAR,
RESTORATION ECOLOGIST

In New England's salt marshes, the ebb and flow of the tides through the marsh grasses provides nesting habitat to birds; offers foraging opportunities for fish that shelter them in calm waters; and serves as a nursery to the marine life that support the entire coastal food chain. As an added benefit to we humans,

salt marshes remove pollutants, provide recreation opportunities, and also protect our communities by slowing down storm surge and tempering the impacts of inclement weather.

Salt marsh plants enjoy the benefits of the changing tides and are happiest when they spend some time in salt

water, and some time out of it. Each marsh plant will find its niche in the tide cycle of the marsh, where the frequency and duration of flooding allows it to grow the best. As a habitat, the marsh has adapted to changes in sea level for thousands of years through a delicate, balanced process in which dead plant

"SEDIMENT PLACEMENT" IS A RESTORATION TECHNIQUE THAT INVOLVES STRATEGICALLY PLACING SEDIMENT ... AND REPLANTING MARSH GRASSES AT THE NEW ELEVATION...



life cycle depends on marshes for survival. Dozens of Save The Bay volunteers planted salt marsh grasses the following spring to give the vegetation a head start in coordination with Refuge staff. Today, the restored marsh sites are doing very well. A team of researchers from Save The Bay, the Rhode Island Department of Environmental Management, and U.S Fish and Wildlife Service revisited all four sediment placement projects this past summer and found very encouraging signs of vegetation regrowing and tidal marsh birds returning to nest successfully.

Save The Bay has also partnered with the Coastal Resources Management Council and local, state, and federal partners on two other successful sediment placement projects at Ninigret (2017) and Quonochontaug (2019) ponds. Both these projects made use of sand that had been dredged from the Charlestown and Quonnie breachways for maintenance. Along with restoring marsh health, these projects—along with a similar 2017 effort at the Narrow River, completed by the U.S. Fish & Wildlife Service—also improved water quality, eelgrass habitat, and recreational navigation.

While these projects have been groundbreaking, they have also been educational. The restoration sites require ongoing attention to make sure water can properly drain off the elevated marsh, and to continue planting marsh grasses

as needed to properly revegetate the marshes. Already, the lessons learned are being applied by our partners—the Narragansett Bay Estuarine Research Reserve and the Rhode Island Department of Environmental Management's Division of Fish and Wildlife—at Point Judith Pond's Succotash Marsh and Potter's Pond.

Salt marshes are struggling—but we can help lift them up. Save The Bay is proud to be leading the way in this effort, and excited to share our knowledge with partners far and wide. After all, the Bay needs all of us, and this is just one way we can support it. ■

and root material, as well as grasses that trap sediment, build up slowly—allowing the marsh itself to sit at the perfect elevation.

However, our marshes have been impacted by legacy human activities and sea level rise has accelerated over the last three decades. Many of Rhode Island's salt marshes cannot increase their elevation fast enough to survive. Marsh plants are dying off from prolonged flooding and the marshes are literally sinking. At some of the most degraded marshes where the marsh has no inland area to climb, an increase in elevation may be the only remaining lifeline. And that's where we come in.

"Sediment placement," also known as "elevation enhancement," is a restoration technique that involves strategically placing sediment from nearby waters or upland sources on the marsh, and replanting marsh grasses at the new elevation in an attempt to accelerate the marsh's natural elevation-building process.

Fortunately, Rhode Island is a leader in New England with forward-thinking permitting regulations that have allowed Save The Bay and our partners to take on this kind of restoration project. The technique was first implemented in Middletown, Rhode Island at the Sachuest Point National Wildlife Refuge in 2016. The first such project in New England, the Refuge used GPS-guided bulldozers to thinly spread sand from an upland location across the marsh, targeting an elevation suitable for the threatened saltmarsh sparrow—a dwindling species whose



(Opposite page) It takes several years for a marsh undergoing an elevation change to fully revegetate to the beautiful green

now seen at "Quonnie." (Top) How fast does a salt marsh build up its own elevation? That's what Ben Gaspar is attempting to determine as he monitors the surface elevation table at a salt marsh restoration site at the Narrow River in Narragansett. Credit: Jonah Saitz, USFWS. (Above) The saltmarsh sparrow fledgling shown here was one of many birds that were handled and banded by highly trained researchers with proper permits as part of a research project to assess reproductive success in salt marshes. Credit: Alison Koczek, USFWS.

Warwick Students Learn More — and Care More — About Narragansett Bay



BY FELICIA GRECO,
AFTERSCHOOL PROGRAM MANAGER
AND EDUCATION SPECIALIST

Strategic Plan Pillar: Education

Hands-on, experiential learning is the foundation of Save The Bay's education program with good reason: the more our students connect with Narragansett Bay, the more they will care about and want to protect it. One year into a three-year NOAA grant supporting yearlong programming for all Warwick Public School fourth graders, we're seeing the results of that theory in action.

Last summer, Save The Bay met with the fourth-grade teachers from Warwick's 13 elementary schools to provide Bay curriculum training that would support a successful collaboration for the duration of this four-visit program. The program's lessons focus on exploring the concept of a watershed, an introduction to Bay species, the creation of a "call to action" stewardship project in which students lead the charge on a Bay-related issue, and a visit to our Providence Bay Center to explore the shore, complete a plankton lab, and hop onboard a boat excursion.

By the time the school year is only halfway through, students have used an interactive Enviroscape model to visualize the interconnectivity of a watershed and the way pollution impacts it. They have come face to face with sea stars, spider crabs, whelks, periwinkles, and horseshoe crabs. They have learned that they have a role to play in the protection of the Bay. And, by the time spring comes around, they are ready to develop a "call to action" stewardship program.

Last year, several classrooms supported a Save The Bay legislative priority: the passing of a bill that prevents solar companies from destroying forests for solar farms and encourages those farms to be placed in already-developed areas, like rooftops and parking lots. The students created their very own campaign, mailing 500 postcards to state senators and representatives in each of the school's specific Warwick districts!

Nine other schools tackled litter pollution by holding cleanups in their school playgrounds and parking lots. Collectively, these efforts resulted in the collection of 445 pounds of trash! Other schools chose to

adopt a unique recycling project that involved saving all of their snack and candy wrappers over the course of three months—while promoting recycling in their school community through the creation of informational posters. At the end of their three-month collection period, the students then submitted the trash to TerraCycle, a company that converts hard-to-recycle items into usable material for manufacturing companies.

This program allows us to connect with students multiple times throughout their school year. Frequent connection and engagement build a strong relationship between these students and the Bay, empowering these young stewards of tomorrow to become advocates in their own right. With year one completed, we look forward to inspiring even more young Warwick Bay stewards over the next two school years. ■



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(Top to bottom) A stack of postcards to be put in the mail to help pass the solar farm bill; students participate in the biodiversity lesson during the Rocky Shore Explore; and an example of a postcard written by a student.



(Left) Students decorate their recycling posters to tape up around their school hallways.



The 2023 Volunteer of the Year: Meet Renay Houle



BY KATY DORCHIES NUTINI,
DIRECTOR OF COMMUNICATIONS
AND MARKETING

Renay Houle began volunteering for Save The Bay regularly in 2021 and quickly became one of the organization's most dedicated volunteers. Renay has participated in and led clean-ups, supported fundraising efforts, lent a hand with archiving paperwork, and represented the organization at community events. In just two short years, Renay has logged over 550 hours of volunteering, and shows no signs of stopping—thankfully!

When did you first become acquainted with Narragansett Bay?

I've been on the Bay since I was a baby. My family boated on the Bay every Sunday after church; clammed in Narragansett Bay; rented beach houses in Narragansett. When I was in high school, we spent weekends on our boat in Newport. Even as a kid, though, I saw litter in the water and on the beaches, and knew that beaches closed because of environmental problems.

How did you first hear about Save The Bay?

I first met Save The Bay through my volunteer work with the Arthritis Foundation, when the two organizations participated in the CVS Health Charity Classic golf tournament. Save The Bay seemed like a great organization and it is. The staff and volunteers are so dedicated, and everyone really cares about the health of the Narragansett Bay.

Can you describe your volunteer role and experience?

I started volunteering in 2021 for beach cleanups, trained to be a Beach Captain in 2022 and have been leading multiple cleanups since then. I also help in the office, making all the donor thank you

calls and electronically filing paperwork. I'm really motivated by the knowledge that the volunteer work I do is good for the environment and for generations to come, and I think other volunteers are, too. Plus, Save The Bay's volunteers are so important to their work. Volunteers greatly multiply the organization's reach and make success possible.

Any advice or words of wisdom to those who might be considering volunteering with Save The Bay?

Consider the impact your time can have on future generations—and get involved now! ■

Learn more about Save The Bay's volunteer program and browse current volunteer opportunities at [SAVEBAY.ORG/VOLUNTEER](https://savebay.org/volunteer).

(Above) It's never a surprise to see Save The Bay's Volunteer of the Year, Renay Houle, at one of our events! Shown above at left, Renay joins the volunteer force at the finish line of Save The Bay's 2023 Swim—but she is just as likely to be spotted at our Providence headquarters or a cleanup!



Hooting About Polluting Leads to a Lifetime of Advocacy



BY EMMA RICHEL SOPH,
OPERATIONS ASSISTANT

"Give a hoot, don't pollute!" was Tricia Chalmers' introduction to Narragansett Bay, a Woodsy Owl chant recited during field-trips in grammar school. And the secret sauce to Save The Bay's effectiveness, according to Tricia? "Education. Educating young ones so they know how important our environment is."

"My hope is that I never have to see a beach closing, or [that] you can't shellfish somewhere on the Bay..."

Tricia is a born and raised Rhode Islander; she grew up in East Providence, attended the University of Rhode Island, and is now an active member of the Bristol, R.I. community. "There's a big connection between me and the water and the Bay," states Tricia, referring to the water she swims in, fish she eats, and beaches she enjoys. "I'm a Pisces, so I need to be near water."

"One of my favorite [Bay-related] memories is when I took my mom and dad and their friends on a Save The Bay light-house tour for their 60th wedding anniversary." The tour departed from Save The Bay's Providence headquarters, cruised to Rose Island, and was narrated by an educator from the Pomham Rocks Lighthouse.

Though Save The Bay has been a "fix-ture" in Rhode Island for most of Tricia's life, she recalls working with the organization for the first time as part of the Rhode Island Earth Day Committee, over 30 years ago. She has since become a sustaining

member, "because we need to save the Bay. I believe in the mission. We have to protect our natural resources, and they're a great organization."

State Park, she noticed a group of people, all learning how to fish for quahogs. "[The Bay] is a lot cleaner than it was when I was young. I don't think you could ever get



Tricia continues to be an involved member of her community, keeping a particular eye on polluted stormwater runoff, overdevelopment, and wetland destruction. Tricia will be volunteering with Save The Bay's storm drain marking program this fall, and is currently advocating against potentially damaging construction in Bristol. "There's a lot of overbuilding that I see here in Bristol and throughout the state. We need to protect habitats, like wetlands, that contribute to the Bay and are disappearing."

As a teacher with summers off, Tricia enjoys natural sites to their fullest. She visited her favorite beach 22 times this summer! During a recent stroll in Colt

shellfish from Bristol way back because of the pollution. My hope is that I never have to see a beach closing, or [that] you can't shellfish somewhere on the Bay... I am thankful to Save The Bay for all they do right now. The Bay has improved a lot." ■

Tricia is a member of Save The Bay's Monthly Giving Program. "I like the option to be a sustaining donor because it's affordable and I can donate more money than just the membership."

Learn more at [SAVEBAY.ORG/MEMBERSHIP](https://savebay.org/membership)

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SAVE THE BAY'S

Wish List

Save The Bay is in need of late-model, working vehicles to support our education programs!





Donate your...

STATION WAGON • SMALL SUV • PICKUP TRUCK • VAN

Save The Bay's existing fleet of vehicles has been donated by generous supporters. Several of our aging vehicles need to be replaced and our growing education program has an increased need for reliable transportation. **But you can help!**



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Questions?
Contact Maureen Fogarty at 401-272-3540 x109
OR send us an email at savebay@savebay.org

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Save The Bay is on Facebook, Twitter, Instagram, and YouTube. Follow along, share your stories and pictures, plan a visit and spread the word about the importance of a healthy Narragansett Bay.

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Mission and Vision: Save The Bay works to protect and improve Narragansett Bay and its watershed through advocacy, education and restoration efforts. We envision a fully swimmable, fishable, healthy Narragansett Bay, accessible to everyone and globally recognized as an environmental treasure.

DESIGN: DonnaDeForbesCreates.weebly.com

A SAVE THE BAY LEGISLATIVE

THANK YOU!

This year's historic shoreline access victory—the passing of H5174 Sub A and S417 Sub A—was only made possible thanks to the support of community advocates and champions in the General Assembly.



Save The Bay thanks the following legislators for their commitment to this issue and their contributions to this success: Rep. Terri Cortvriend, Sen. Mark McKenney, Speaker Joe Shekarchi and Senate President Dominic Ruggerio.



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