

Public Access to RI's shoreline Women Captains at the Helm

Strategic Plan 2022-2027

NARRAGANSETT BAY



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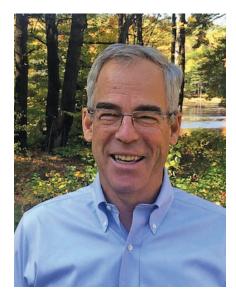
SAVE THE **BAY**®

Taking Stock: The Clean Water Act and What Lies Ahead

Fifty years ago, Narragansett Bay was one of the most polluted estuaries in the United States. But for the Clean Water Act, passed by the U.S. Congress in 1972, Narragansett Bay would likely remain largely unsafe for activities like fishing and swimming, and unable to support healthy ecosystems and habitats. In this issue, we celebrate this seminal law, which furnished Save The Bay, other advocates, and the U.S. Environmental Protection Agency with the legal framework to force polluters to clean up their act.

Today the Bay is threatened in ways never contemplated by the original authors of the Clean Water Act. Stormwater runoff and other nonpoint sources of pollution threaten water quality throughout the watershed. We're learning more about emerging contaminants, such as plastics and household chemicals, that persist in the environment for years. Rapid climate change is profoundly altering environmental conditions and degrading the coastal habitats that sustain marine ecosystems. Meanwhile, much of the political will at the state and federal levels to enforce environmental protections—like the Clean Water Act—has dissipated.

Throughout its history, Save The Bay has learned to adapt and evolve to address the changing nature of these environmental threats. Periodically, we take stock of the



obstacles before us and set new objectives that respond to changing environmental, political, and funding challenges. Recently, our Board adopted a new Strategic Plan that sharpens our focus on the most pressing environmental threats and strengthens our commitment to diversity, equity, and inclusion. We are excited to share this new vision with you over the coming weeks on our website and via member communications.

At the end of the day, however, our ability to make a meaningful difference in protecting and improving Narragansett Bay depends upon you. As a grassroots organization, we depend on our members, donors, and volunteers to help us achieve progress. Soon, warming water and summer air will draw us back to the Bay, to swim, sail, fish, or just enjoy the view. It's timely to reflect on our collective role as stewards of this extraordinary place called Narragansett Bay.

With appreciation,

Jonathan Stone **Executive Director**

TIDES MAGAZINE

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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.

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The Clean Water Act of 1972 set out a bold goal: to restore and maintain the chemical, physical and biological integrity of our nation's waters. Photo by Olga Strogonova.









ADVOCACY

The State of Public Access



BY DAVE PRESCOTT, SOUTH COUNTY COASTKEEPER

With over 400 miles of shoreline, the public's ability to access Rhode Island's rocky and sandy beaches is so inherent to our culture that it was embedded in our state constitution from the document's inception, as well as in the charter before it that established the Rhode Island government.

property owners' concerns as well as the public's desire and right to enjoy Rhode Island's coastline.

In 2021, we supported legislation introduced by state Reps. Terri Cortvriend and Blake Filippi that attempted to decriminalize trespassing over the invisible edge of the public shoreline. While

the bill did not pass, the representatives won passage of a resolution establishing a Rhode Island House Study Commission on Shoreline Access, the aim of which was to clarify the location of the "public" part of our shoreline, addressing the concerns of property owners and beachgoers alike. After months of testimony and review, the commission concluded that the General Assembly should clarify that the public area of the shoreline extend 10 feet inland from the recognizable high tide line, the line of seaweed and other debris left by high tides (also referred to as the "wrack line" or "swash line").*

Beyond these disputes, however, public access is constantly threatened by increased demands for coastal development, poorly maintained public access sites, hardening of the shoreline, coastal erosion, and other effects of sea level rise. Over 130 miles of our shoreline are hardened with riprap walls, bulkheads, and other manmade structures that make lateral access (access along the shore) challenging, if not impossible. And, while the Rhode Island Coastal Resources Management Council has designated 229 official rights-of-way to the shoreline, the illegal obstruction of those ROWsthrough the use of fences, boulders, and vegetative overgrowth—only exacerbates the issue.



Over the past two years, in the midst of a global pandemic, we've seen a resurgence in Rhode Islanders' desire to get outside and exercise their right to access our shorelines. Consequently, public access conflicts have been on the rise as well. Some shoreline users have been charged with criminal trespass since it is unclear what area of the shore is public, and no visible line exists to identify it; meanwhile, others struggle to make use of state-designated rights-of-way due to intentional obstructions and neglect.

Since Save The Bay's beginnings in 1970, we've been committed to improving public access to the Bay, its rivers, and its entire coastline. We are acutely aware of the complexities around public access and mindful of both coastal

"The people shall continue to enjoy and freely exercise all the rights of fishery, and the privileges of the shore, to which they have been heretofore entitled under the charter and usages of this state, including but not limited to fishing from the shore, the gathering of seaweed, leaving the shore to swim in the sea and passage along the shore; and they shall be secure in their rights to the use and enjoyment of the natural resources of the state with due regard for the preservation of their values [...]"

~ Article 1, Section 17 of the Rhode Island Constitution ABOVE: South Shore Beach; Opposite, top: While some of CRMC's designated rights-of-way are clearly marked and accessible, like the one shown here in Bristol Harbor, many are obstructed or neglected.



The Rhode Island Coastal Resources Management Council, charged with managing Rhode Island's ROWs, has set a goal of identifying at least one public right of way for each mile of shoreline. To support this goal, and address many of the concerns above, Save The Bay routinely assesses each of CRMC's 229 rights-of-way. We share the data we collect from our assessments directly with CRMC and work with the Rhode Island Attorney General—two state entities that have made public access a priority by identifying and correcting blocked and obstructed rights-of-way.

Save The Bay looks forward to continuing to advocate for a Narragansett Bay that is accessible to all by protecting Rhode Islanders' ability to access the shore and supporting measures that clarify our rights along the shoreline.

*At the time this publication went to press, legislation reflecting the commission's findings and recommendations was being drafted.

Past Public Access Victories

BLACK POINT, NARRAGANSETT

In 1985, Save The Bay embarked on a five-year battle to save Black Point from a proposed condominium development that would have eliminated public access along the beloved footpath. The fight to save Black Point took place before the local zoning board and town council, at CRMC hearings, and, eventually, in the courts. The effort galvanized support for Rhode Islanders' long-standing rights of public shoreline access, and culminated in Governor Ed DiPrete announcing the state's intention to buy Black Point for use as a state park, "as a symbol for the fight to ensure shoreline access."

PUBLIC STREET. PROVIDENCE

The eastern end of Public Street in Providence is one of the newest CRMC-designated rights-of-way to the shoreline. Dedicated in October 2021 after two years of advocacy by Save The Bay, the Washington Park Association, and South Providence Neighborhood Association, it is the first CRMC right-of-way within Providence's heavily-industrialized waterfront. Nearby residents will be able to enjoy access to the shoreline for fishing and observing wildlife, while plans for further enhancements to the site are being developed by the city.

RIGHT, TOP: The rocky shore of Black Point, shown here, nearly became the site of a condominium complex in 1985. The site's protection as a state park remains a pivotal victory in the history of shoreline access battles. RIGHT, BOTTOM: The eastern end of Public Street in Providence is one of the newest CRMC-designated rights-of-way to the shoreline. It is the first CRMC right-of-way within Providence's heavily-industrialized waterfront.





COMMUNITY

A Five-year Blueprint

BY JONATHAN STONE, EXECUTIVE DIRECTOR

SAVE THE BAY'S 2022-2027 STRATEGIC PLAN

At Save The Bay, our mission to protect and improve Narragansett Bay is more than just a slogan; it is our passion and lifeblood. Every day we ask ourselves: how do we translate this mission statement into effective action? How do we organize ourselves to make a real and lasting difference in the health and resilience of Narragansett Bay?

Over the decades, we have constantly refined our objectives to focus on the most pressing challenges. And we have honed the strategies we use to achieve results, by adding new programs, adopting the best available science, engaging more people, and investing in new capacity. By intentionally refreshing our strate-

gies and clarifying our areas of focus, we increase our impact and strengthen our ability to solve emerging challenges that threaten the Bay and its surrounding waters. This is where our strategic plan comes in. Over the course of 2021, our staff, Board and Board Committees dove headfirst into the task of charting the course for the organization for the next half-decade. This extensive planning process led to the development of our 2022-2027 Strategic Plan.

Much has changed since 2014, when our Board adopted our last Strategic Plan. One important priority of the 2014 plan was to stabilize Save The Bay's finances to ensure our ability to respond to the chal-

lenges posed by climate change and the urgency of engaging new constituents, partners and communities to achieve results.

Today, thanks to the generosity of our members, donors, and funders, Save The Bay's financial position is much stronger, affording us the opportunity to sharpen our focus on environmental objectives, strengthen our capacity to effect change, and expand and enrich our educational programs.

The co-chairs of our Strategic Planning process, George Shuster and Tim Palmer, led a yearlong effort to listen and learn. The Board solicited extensive input from our experienced staff, consulted





of school programs to urban ring communities and Massachusetts school districts.

Last but not least, we recognize that we have much work ahead of us to embed the principles of diversity, equity, and inclusion in all that we do, from the composition of our Board, Board Committees, and staff, to our communications, community engagement, and outreach efforts. We are prioritizing environmental justice communities in our advocacy efforts and strengthening relationships with individuals and organizations who share common values in promoting the environmental health of our communities and public access to the Bay.

Of course, the measure of any effective Strategic Plan is successful implementation. We are committed—at every level of the orga-

with expert volunteers on our many Board committees, and conducted an extensive series of eight focus group discussions. These focus groups included leaders of peer organizations, environmental regulators, educators, scientists, and community leaders with extensive experience in fostering diversity, equity, and inclusion in organizations.

The net result of this planning effort is Save The Bay's 2022-2027 Strategic Plan, which the Board formally adopted this February. This plan contains three major pillars:

- Sharpening the focus of our advocacy and habitat restoration efforts.
- Expanding and enriching our environmental education programs.
- Strengthening our commitment to diversity, equity and inclusion in all that we do.

From an advocacy and restoration perspective, we are focusing on specific geographies in and around the Bay that suffer from chronic pollution problems, habitat loss, and climate change impacts. We are also committed to hiring additional staff to accelerate the pace of restoration work along the Bay and in the watershed.

We see major opportunities to expand our educational programs, which are critical to our efforts to increase awareness of environmental challenges and inspire the next generation of Bay stewards. The relocation and expansion of our Aquarium in Newport is a big priority, as are our efforts to extend the reach



nization—to monitoring progress, ensuring accountability and achieving the specific goals and objectives of this plan. We count you, our members, volunteers, and supporters, as our partners on this journey.

Our 2022-2027 Strategic Plan will guide us as we hone our focus on our habitat restoration and adaptation work—like the efforts shown in Tiverton's Sapowet Marsh (LEFT),— our policy and advocacy efforts, and our education program—including our boat-based programs (TOP), in addition to strengthening our commitment to diversity, equity and inclusion. Above: Save The Bay's headquarters at Fields Point in Providence, R.I.

WHO SAVES THE BAY? STAFF PROFILE

Aura Hernandez: Save The Bay Student Turned Educator

BY MACKENSIE DUPONT CROWLEY, COMMUNICATIONS SPECIALIST

Aura Hernandez grew up in Central Falls and graduated from Roger Williams University before joining Save The Bay as an education specialist in 2021.

I hear you were a Save The Bay student, yourself?

My AP Environmental Science class at Central Falls High School worked with Save The Bay educators on a Narragansett Bay Field Studies program. We did restoration work at Lonsdale Marsh in Lincoln.

Was that your first field experience?

Yes! But I've always loved exploring the outdoors. Our family would drive down to Misquamicut or Scarborough beaches after school when I was a kid. My parents tell stories of our family trips to Mexico, where they're from, and how I would wander around outside all day.

The hands-on aspect of that field experience with Save The Bay stuck with me. It led me to pursue a LEAF internship with The Nature Conservancy, where I completed environmental stewardship work all over the Northeast.

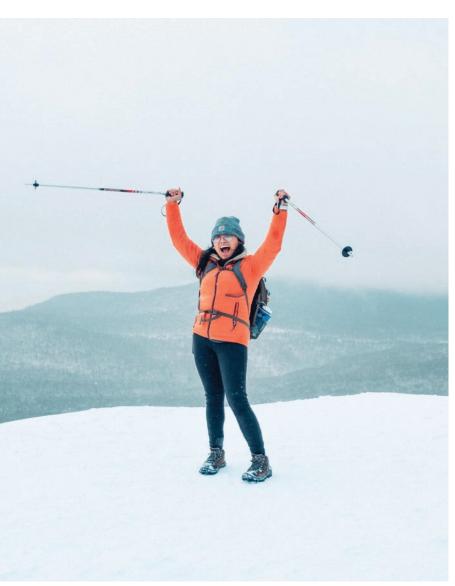


My first experience working with kids was as a mentor at Project GOAL, a program for underserved students that offered academic support and the opportunity to play soccer. I was able to explore my interest in the advocacy side of environmental science, too, as an intern with Senator Whitehouse, working under Karen Bradbury on environmental projects.

Has your experience as a Save The Bay student affected how you approach your role as an educator?

Totally! I've had the opportunity to develop my own style of teaching. As an educator and a person of color, I think it's important to provide students who might not have the opportunity to learn about Narragansett Bay the chance to experience it. Accessibility is important.

I also love going to classes with multilingual students! When these kids realize I speak Spanish, they are so excited to learn with me. Returning to Central Falls High School to teach water quality and macroinvertebrates programming to multilingual learners has been a full-circle experience. To get these students interested in environmental science, the way Save The Bay educators did for me, is so special.



From the mountains to Narragansett Bay, a love of the outdoors inspired Aura to pursue environmental education.

Save The Bay Action Updates

- Our new education vessel, the Rosemary Quinn, made her debut program
 appearance in Fall 2021 during our Westerly Seal Tour and Nature Cruise season.
 She'll be back out on the water again this summer supporting volunteer programs
 and BayCamps.
- Education programming is back in full force! During the 2021-2022 school year, our
 educators delivered more than 450 in-person and virtual programs that focused
 on environmental concepts like climate change, ocean acidification, the carbon
 cycle, and local species and habitats, with activities including dune grass plantings,
 visits to our Exploration Center and Aquarium in Newport and our Bay Center in
 Providence, and more.
- Following the 2021 legislative session, the Rhode Island House of Representatives established "study commissions"—working groups of legislators and non-legislative volunteers—to address three issues of great importance to Narragansett Bay:
 Coastal Resources Management Council structure and procedures; shoreline access; and land use. Save The Bay was named a member in each commission and has advocated for CRMC reform, for the protection of the public's guaranteed right to walk along the shoreline, and for ensuring the protection of natural resources is maintained and strengthened as zoning and planning laws are modified.
- Save The Bay established five legislative priorities for Rhode Island's 2022 legislative session: ensuring funding for the agencies charged with protecting the environment; funding climate adaptation; protecting shoreline access; reducing plastic pollution; and reforming CRMC. At the time this publication went to print, our staff had submitted either verbal or written testimony on nearly 20 bills addressing these priorities, with several weeks left in the session.



USE YOUR VOICE when you sign up for VoterVoice with Save The Bay! When we send you an Action Alert about an issue important to Narragansett Bay, VoterVoice will match you with your elected officials and guide you through sending either a personalized or pre-written message to your representatives. Learn more and sign up at savebay.org/advocacy.

VOLUNTEER WITH SAVE THE BAY this summer! We are looking for helpers at our Exploration Center and Aquarium this summer, for shoreline cleanups (taking place now through November), and for the 2022 Swim on Saturday, August 6, 2022. Learn more and find the perfect opportunity for you at savebay.org/volunteer.

Thank You...

Save The Bay's sponsors make all of our events possible! Thank you to this year's supporters:

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ABOVE: sponsor support allows us to bring Narragansett Bay supporters together for four major events every year, including our annual Taste of The Bay event, taking place this year on June 16. Read more on page 23.

COVER STORY

For Clean Water

CELEBRATING THE 50TH ANNIVERSARY
OF THE CLEAN WATER ACT—AND ALL THE
WORK THAT RESTS ON ITS SHOULDERS



BY SAVE THE BAY'S WATERKEEPERS

Narragansett Bay's transformation from an open sewer to the healthier Bay of today is no accident. It is a decades-long achievement earned by dedicated people demanding action by their government. It is also an achievement built on the foundation of a landmark federal law: the Clean Water Act. This year, we celebrate the Clean Water Act's 50th Anniversary, and the many ways it's helped improve Narragansett Bay.

Creating the Clean Water Act

In Rhode Island, efforts to enact laws protecting local waters from pollution date back to as early as 1920, when the "Of the Pollution of the Waters of the State" act created a Board of Purification of Waters. While the Board had the authority to regulate water pollution—even bringing the Town of East Providence to court over the 270,000 gallons of raw sewage it was jettisoning into the Seekonk River daily—federal legislation spurred the action needed to support the next era of water protection.

The Clean Water Act was the culmination of more than six decades of laws aimed at protecting the nation's waters: the Rivers and Harbors Act of 1899, the Federal Water Pollution Control Act of 1948, and the Water Quality Act of 1965. Together, these laws set clean water standards and established funding sources for wastewater plant construction and sewage treatment.

Despite these noble first attempts at protecting United States waters, in the late 1960s and early 1970s, environmental stories—from a massive fish kill in Florida to the Cuyahoga River catching fire in Ohio—were making headlines across the nation. Locally, raw sewage overflows made Upper Narragansett Bay and Mount Hope Bay off-limits to shellfishing and direct contact with the water unsafe. With the advent of the first-ever Earth Day protest and celebration in 1970, the people had their eyes on environmental health.

In 1972, Congress made major amendments to the Federal Water Pollution Control Act, including changing its name to the Clean Water Act. With the new Act came a bold goal: to restore and maintain the chemical, physical and biological integrity of our nation's waters.

1972 Clean Water Act Amendments

In 1972, a host of amendments to the 1948 Federal Water Pollution Control Act resulted in the Clean Water Act as we know it today. They...

- Granted the newly-created Environmental Protection Agency the authority to set up programs and delegate states with the authority to control water pollution
- Maintained existing requirements to set water quality standards for contaminants in surface waters
- Prohibited unpermitted point source pollution and identified the need to address issues caused by nonpoint source pollution
- Established a grants program to fund wastewater treatment plant construction

In Rhode Island, these state responsibilities—along with the enforcement and implementation of all Clean Water Act programs—are managed by the Rhode Island Department of Environmental Management. Once every two years, RIDEM



issues a report on the state of Rhode Island's waters. In the report, the agency identifies waterbodies that are not meeting water quality standards, the source of their contamination, and a plan to restore them to attain the designated uses. Save The Bay anticipates these reports and usually recommends steps to improve certain waterbodies, although many remain unassessed.

Capping Point Source Pollution

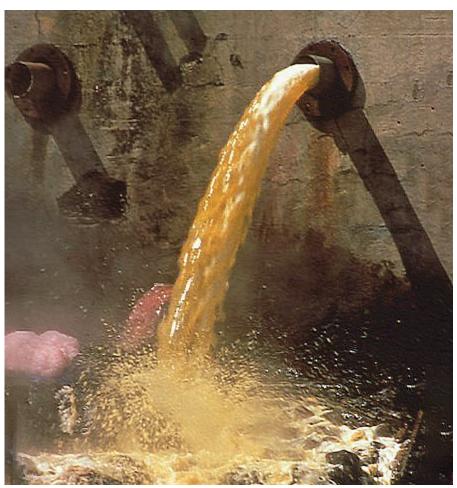
The Clean Water Act focuses on two potential pollution sources: point and nonpoint. Under the Act, point source (think: waste pipes emptying into a river) discharges can only happen within parameters determined by a National Pollution Discharge Elimination System (NPDES) permit. These permits control what can and cannot be discharged into a waterway to avoid degrading water quality or preventing the waterway from being used as designated.

In the 1970s, point source discharges from local industry and wastewater treat-

Identifying and Addressing

To meet the goals outlined in the Clean Water Act, states are required to develop water quality standards that form a basis for controlling water pollution. These standards must be sufficient to "protect the public health or welfare, enhance the quality of water and serve the purposes of" the Clean Water Act. The states are also responsible for identifying the "designated uses" of their waters (for example, recreational use, fishing, or scenic enjoyment), and managing a list of waters that are too impaired for their designated uses.

LEFT: The Narragansett Bay we know today is the result of decades of advocacy and effort—much of which was built on the foundation laid by the Clean Water Act. Photo by M.J. Offiler. ABOVE: Fishing and shellfishing are examples of possible "designated uses" of certain waterways. When water quality standards drop below what is allowed for those uses, the waterway is flagged as "impaired." RIGHT: Prior to the Clean Water Act, disposal of dyes and other waste products into nearby waters was common practice by local industry.



Tides Magazine Spring 2022

WOTUS, Revisions

The definition of the "Waters of the United States" determines which waterbodies are protected by the Clean Water Act. The definition has long been a point of contention, with advocates for clean water at odds with private industries seeking more lenient rules. This tug of war has reached the U.S. Supreme Court on



many occasions, with fundamental questions about the scope of the Clean Water Act at stake. What freshwater wetlands are covered by the Act? What about isolated waters. like ponds? Over the past several decades, different administrations have weakened and strengthened the WOTUS definition. Most recently, the Biden Administration in 2021 moved for a return to an earlier WOTUS definition that would protect more waters under the Act, but the continued debate around this definition serves as evidence that the legislation deserves our continued attention and advocacy.

ment facilities were the primary pollutants affecting the Bay. The Act put an end to the convenient industrial practice of dumping waste products in local rivers, and set a new standard requiring wastewater treatment facilities to use the "best available technology" to ensure their discharges are in compliance with the law. Today, local rivers no longer run red and orange with discarded dyes from factories. Upper Bay wastewater treatment plants have reduced the bacteria, nitrogen, and other pollutants that historically caused water quality problems in Narragansett Bay. In the last 15 years, treatment plant-based nitrogen pollution—a key contributor to algae growth that robs Bay waters of oxygen when it decomposes—has decreased by more than 50 percent.

NPDES permits can tell us a lot about how pollution in Narragansett Bay is being prevented. Since permit renewals present an opportunity to advocate for increased water quality protections, Save The Bay reviews all Rhode Island NPDES permits and renewals, as well as Massachusetts permits relating to Bay tributaries. In Rhode Island, we submit comments and recommendations to RIDEM; in Massachusetts, we submit them directly to the EPA, since they implement the Clean Water Act in the Commonwealth. In the past decade, Save The Bay has strongly advocated for permits to lower nitrogen limits.

Once untouchable river and Bay waters are now teeming with marine life and people fishing, paddling, and boating. Thousands of acres of shellfish beds have been reopened to harvest. Beaches in the Upper Bay are much cleaner and safer... most of the time. Point source pollution management alone has spurred spectacular restoration, but many waterways remain unsafe for recreational activities, fish harvest, or the species that

live in the Bay.

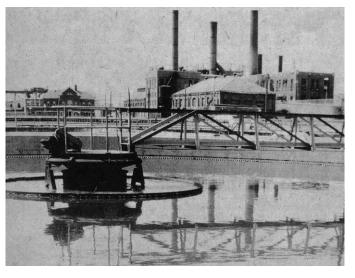
Wrangling Nonpoint Source Pollution

It's one thing to control sewage and industrial waste coming from pipes—but what about all the fertilizers, petroleum, pet and livestock waste, and litter that accumulate on land, then get flushed into local waterways during rainstorms? This is what is referred to as "nonpoint source pollution," and is believed to



Polluted stormwater runoff remains one of the biggest pollution challenges of our day. Evidence can be seen in pollution across the watershed, including in the Roger Williams Park ponds (TOP OF PAGE). When it rains, the stormwater flushes contaminants—animal waste, fertilizer, petroleum—into local waterways (ABOVE). This kind of pollution is referred to as "nonpoint source pollution."





be the primary reason for impaired water quality in the Narragansett Bay watershed today. It's why the ponds in Roger Williams Park and the drinking water supplies on Aquidneck Island are clouded with dangerous blue-green algae known as "cyanobacteria," and why Greenwich Bay beaches are sometimes closed to swimming after rainstorms.

Under the Clean Water Act, known non-point discharges—including the networks of pipes and catch basins

that redirect stormwater into local waterways—are governed by stormwater regulations. When a state agency or city violates those regulations, RIDEM and the EPA have the authority to step in—like when the EPA ordered the Rhode Island Department of Transportation to develop a long-term strategy to correct chronic stormwater pollution in 2015. After decades of neglect, RIDOT is now implementing a corrective plan for the state's stormwater infrastructure.

Save The Bay partners with cities and towns to identify the strategies and funding needed to reduce stormwater pollution, but

because it stems from every square foot of land in the watershed, it remains a pernicious challenge. Communities need more resources to manage stormwater flow and pollution. Farmers need help implementing measures to keep animal waste and fertilizers out of streams. And, in coastal areas, sea level rise is driving saltwater into stormwater pipes and catch basins, presenting new engineering challenges. Even with the Clean Water Act, additional funds are desperately needed, especially in Rhode Island, to enforce the Act and mitigate ongoing pollution.

Empowering Environmental Advocates

One element of the Clean Water Act stands alone for its ability to empower environmental advocates. Section 505(a), or the Citizen Suit Provision, gives citizens the right to sue those violating the Clean

Water Act, empowering individuals and organizations to enforce the Act themselves.

The provision is a powerful tool for environmental advocates everywhere, and can lead to significant action from the federal government. Using the Citizen Suit Provision, Save The Bay participated in a 1979 lawsuit against the City of Providence over the city's ailing Fields Point wastewater treatment facility. As a result, the facility, which had been cited as one of the worst in the country, was turned over to the newly-created, quasi-public Narragansett Bay Commission, which has earned national awards for its contributions to the cleanup of the Upper Bay.



The Enduring Value of the Clean Water Act

The Clean Water Act is a living, breathing document. Since its creation, it has undergone many changes, from evolving funding sources in the 1980s to dramatic shifts in, and challenges to, the definition of what constitutes the "Waters of the United States" (see "WOTUS, Revisions" at far left) right up to present day.

While times—and pollution impacts—have changed drastically since the Act was first penned, our need for it has not waned. As climate change threatens wastewater treatment plants with increased flooding and accelerated sea level rise, and aging stormwater infrastructure demands expensive repairs and reengineering, we need the Clean Water Act now more than ever. It represents, not only the most important pieces of federal environmental legislation to date, but also the foundation we need to protect Narragansett Bay today and in the future.

LEFT, CENTER: The Clean Water Act gave Save The Bay and other vocal environmental advocates the tools they needed to file a lawsuit against the City of Providence over its ailing Fields Point wastewater treatment plant. ABOVE: Allowing native plants to regrow in areas adjacent to local waters is one way that property owners and communities can help address stormwater pollution.

its watershed.

Five Key Environmental Laws and Regulations

The federal Clean Water Act is the cornerstone of many environmental advocacy efforts across the country, but state laws play their own role in supporting the health of Narragansett Bay. Below, we highlight five impactful state laws and regulations that are near and dear to our efforts to protect and improve the Bay and

Nitrogen Reduction Targets for Wastewater Treatment Facilities Legislation (2004)

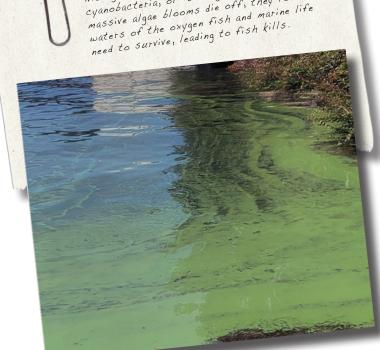
Excess nitrogen feeds algae growth and, when that algae decomposes, it robs Narragansett Bay waters of the oxygen fish and other marine life need to live. After documenting the 2003 Greenwich Bay fish kill, Save The Bay convened a group of scientists to recommend reducing the amount of nitrogen wastewater treatment plants were discharging into the Bay. We worked with the Rhode Island General Assembly to set in law a nitrogen reduction target of 50 percent by December 31, 2008. The goal was met and surpassed.



BY KENDRA BEAVER, STAFF ATTORNEY

The 1996 North Cape Oil spill spurred important state legislation that put safety measures for oil barges in place.

Nitrogen feeds algae-including dangerous cyanobacteria, or blue-green algae. When massive algae blooms die off, they rob local waters of the oxygen fish and marine life need to survive, leading to fish kills.



The Rhode Island Cesspool Law (2007, amended in 2015)

This law reduces cesspool sewage pollution in Narragansett Bay. Cesspools are stone- or brick-lined holes in the ground that hold household sewage and wastewater, but do not treat them like septic systems or centralized wastewater treatment facilities. Instead, cesspools leach bacteria and other toxic material straight into the ground. The 2007 law set deadlines and conditions for cesspool removal across the state; the 2015 amendment added that cesspools must be closed and replaced with either a septic system or tied into a sewer within one year of a property's sale or transfer. Save The Bay campaigned vigorously for the passage of both the law and the amendment, alongside Clean Water Action, the Rhode Island Builders Association, and the Environment Council of Rhode Island.

The Tank Vessel Safety Act (1997)

This law reduces the risk of a catastrophic oil spill in Rhode Island waters. Following the disastrous 1996 North Cape oil spill, in which an oil barge ran aground on rocks near Matunuck Beach during a nor'easter, Save The Bay advocated for strong state laws to protect the

15

Bay from the factors that led to the catastrophe. The Tank Vessel Safety Act requires safety measures—requiring oil barges to be either be double-hulled or escorted by a tug boat connected to the barge—and notes that "no tank vessel shall transport oil or hazardous material on or over waters of the state in conditions of limited visibility."

4 Stormwater Regulations (1990, 1993, 2010, 2018)

Stormwater pollution refers to the gas, oil, fertilizers, litter, and pet waste that is flushed off of the ground—

especially paved areas—into Narragansett Bay and local waterways when it rains or snows. In 1990, the EPA issued the first stormwater reg-



Freshwater wetlands play an important role in the overall health of Narragansett Bay and its watershed-which is why we advocated for stronger Freshwater Wetlands Act protections in 2015.

ulations to prevent polluted runoff from entering local waters. The Rhode Island Department of Environmental Management—delegated by the EPA to enforce the federal Clean Water Actresponded by setting state standards for stormwater con-

trol system design and, with the Rhode Island Coastal Resources Management Council, creating a design manual for developers. RIDEM has issued notices to enforce stormwater standards in several communities,

but the EPA had to step in to force action by the City of Providence. Save The Bay supports more robust enforcement of stormwater regulations, and supports communities looking to design and finance stormwater system improvements.

Freshwater Wetlands Act (1971, revised 2015)

The purpose of this Act is to preserve the purity and integrity of freshwater wetlands, buffers and floodplains vital to a healthy Bay and watershed, and the law regulates activities that impact them. Save The Bay served on the Wetlands Task Force that recommended the 2015 revisions that broadened RIDEM's authority to protect wetlands. We commented extensively on draft regulations and mobilized other groups to do the same. In the end, the regulations increased protections in some areas, while unfortunately limiting the protection of urban wetlands.

RESTORATION

Meanders for the Maidford





BY RIVERKEEPER, KATE MCPHERSON
AND ADVOCACY COORDINATOR, JED THORP

The first thing you notice when you see the Maidford River is just how incredibly straight it is. Draining the southeastern corner of Aquidneck Island, the Maidford has been pushed around, dug out, and generally ignored for generations. If you walk along Paradise Avenue or Berkeley Avenue during a rainstorm you'll notice the water is a brown muddy mess, degraded by suspended solids and less visible threats. Nitrogen and phosphorus pollution present in the water can create algae blooms, including blooms of potentially toxic cyanobacteria, and high bacteria levels can contribute to beach closures at Third Beach.

The Maidford River is the primary water source for Nelson Pond and Gardiner Pond—both part of the drinking water supply for Aquidneck Island. All of Aquidneck Island's drinking water reservoirs are currently listed by the Rhode Island Department of Environmental Management as impaired by phosphorus pollution. Pollution enters the river during storms through runoff from agriculture, lawns, roads, and parking lots.



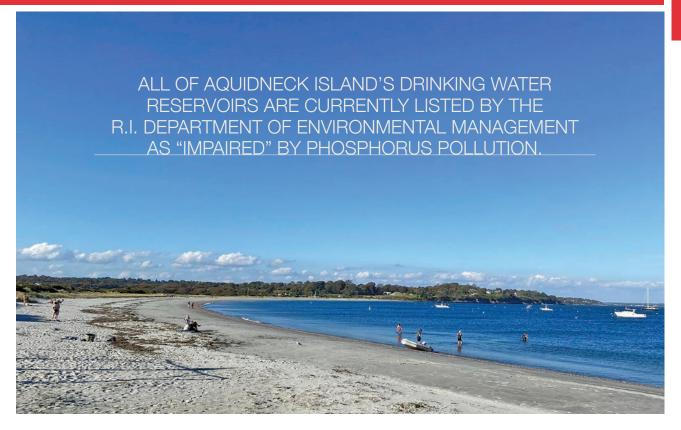
A 2017 conservation plan created for the Aquidneck Land Trust examined sources of river pollution and proposed strategies to

improve river health and alleviate flooding. In 2019, funding from the U.S. EPA's Southeast New England Program (SNEP) kick-started a partnership between Save The Bay, Aquidneck Land Trust, the Town of Middletown, Elizabeth Scott Consulting, the Eastern RI Conservation District and Fuss and O'Neill to start putting the conservation plan into action.

The Maidford River Restoration Project has two related goals: reduce flooding along Berkeley Avenue and nearby roads, and improve water quality and habitat. To address flooding, the project proposes replacing two culverts, constructing a berm, and raising a portion of Berkeley Avenue. To improve habitat, the project proposes creating meanders and microhabitats in the river, carving out the bank to create a floodplain, and restoring the river corridor to a more natural state. Migratory and resident birds use floodplains to find



TOP: Flooding of the Maidford River along Berkeley Avenue, a frequent occurrence during heavy rains. LEFT: A channelized (straightened) section of the Maidford River after a heavy rain event.



food and cover, while mammals—from small field mice to red fox—use them to den, forage, and hunt. The improved river habitat will support aquatic bugs that fish feed on, as well as the variety of reptiles and amphibians that live on Aquidneck Island.

Altering the flow of a river is complicated. The project team is currently completing land surveys, observing wildlife, creating site plans, and engineering a more natural river layout. Our next step is to secure written permission from landowners in the project area. Then, with the endorsement of the Middletown Town Council, we will work with state and federal regulatory agencies to secure the permits required for the project. Once permitting is complete—which could take some time due to the complexity of the project—we would secure additional funding and start construction. The team has also offered free advice to property owners that live along any stretch of the Maidford who are interested in planting natural vegetation on their respective properties.

While this project could, like so many restoration projects, take years to complete, we look forward to making progress in the restoration of the Maidford River, a project that will yield benefits for the Middletown community and Narragansett Bay for decades to come.



TOP: The Maidford River ends at Third Beach. ABOVE: Save The Bay's Riverkeeper, Kate McPherson, discusses buffer restoration options with a Middletown property owner.



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EDUCATION



BY MACKENSIE DUPONT CROWLEY, COMMUNICATIONS SPECIALIST

Who's at the Helm? Women Captains of Save The Bay

To be a woman on a ship before 1900, you would have had to be the wife or daughter of a captain or disguise yourself as a man. Relation to the captain might allow you to witness how the ship was run and learn navigational skills. However, your responsibilities would include serving meals, managing financial records, and cleaning below deck. It wasn't until 1974 that the first group of women was admitted to the United States Marine Academy.

While women today have the opportunity to hold the same roles as men onboard, the

industry is still heavily male-dominated. According to the International Maritime Organization, women account for only 1.2 percent of the global seafarer workforce as of 2021, with female captains making up a limited number of that already small percentage. At Save The Bay, 50 percent of our captains are women: introducing Captain and Public Programs Manager Jen Kelly and Captain and Education Specialist Meghan Kelly.



It has become commonplace at Save The Bay to develop captains from inside the education team instead of hiring them from outside the organization. Both Jen and Meghan attribute the opportunity to earn their captain's license to Director of Education Bridget Kubis Prescott.

"I like to give my entire team opportunities for growth. It does make me proud when one of my female staff members wants to seize an opportunity that is traditionally seen as a male role in the larger orbit of the world," Bridget shares. So far, five women from Save The Bay have gone through the training.

Anyone who intends to operate a vessel carrying passengers-for-hire must obtain a captain's license. At Save The Bay, our captains participate in a two-week, 80-hour course, where they learn skills like navigation, the rules of the road, and chart-plotting. Completing the course and passing a written test is only the beginning; the Coast Guard has a number of requirements, including 360 days at sea. Both Captain Jen and Captain Meghan completed their sea time under longtime Save The Bay Captain Eric Pfirrmann.

Navigating the Role

"It's an anomaly to have someone fill the captain-educator position," Jen shares. These are two skillsets that don't often overlap. Captains focus on boating; educators focus on teaching.

CAPTAIN MEGHAN KELLY

LEFT: Captain Meghan Kelly started at Save The Bay as an AmeriCorps member as part of the Ocean State Environmental Collaborative in 2013. Following a per diem year, she joined our staff as an education specialist. She began her boating journey at Save The Bay, received her captain's license in 2017, and is shown here helping out the Safety Squad during the Save The Bay Swim.

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All of our educators develop the skills to work onboard as a deckhand, like setting up the vessel for passengers and activities. To have some educators go on to also receive their captain license makes for a more versatile staff with a vast breadth of knowledge—they can do it all.

With the title of captain comes a host of other responsibilities. While navigating and driving the boat is a given, the captain is also the first at the dock to get things running, says Captain Jen. "You have to be comfortable with all our different vessels since they all drive differently. We're responsible for making sure everything on board is in working order, from filling out logs to double-checking the weather."

According to the captains, Save The Bay has robust protocols on when we will and will not operate, and things can change quickly on Narragansett Bay. "Half my day in the summer is checking the radar," says Captain Meghan. "If something like a storm pops up, we are getting kids out of the water and moving."

Women at the Helm

While most children onboard for a school program are unaware that a female captain is anything out of the ordinary, other schools make it a point to acknowledge the gender disparity in the maritime industry.

"When we bring out groups from the all-girls Lincoln School, they make sure to acknowledge that a woman is driving the boat and that there's an opportunity for them to do this one day!" says Captain Jen. "It's one of my favorite experiences as a captain."

For Captain Meghan, she thinks her presence at the helm is a surprise to some, at first. "I'm not only a woman but also young. I do see some adults get wide-eyed when I announce that I'll be their captain, especially when it was a male crew member who signed them in on the dock.

"It's empowering for me."

ABOVE: Captain Jen Kelly was a Save The Bay volunteer and seasonal staff member at the Exploration Center and Aquarium for a year before joining our staff as an education specialist in 2010. Today, she is our public programs manager. She grew up boating but received her captain's license in 2013, and is pictured here with her son during our summer BayCamp.

WHO SAVES THE BAY? VOLUNTEER SPOTLIGHT

Middlebridge School Students Make a Splash at our Aquarium



BY BAYLEY FORSHEE, DEVELOPMENT AND VOLUNTEER ASSOCIATE

At the start of the 2021 school year, Narragansett-based Middlebridge School students sought a volunteer opportunity that provided hands-on learning experiences and community participation. By October, the students were star volunteer docents at our Exploration Center and Aquarium! Jonah (J), Lily (L), and Middlebridge Internship Program Director Ellen Darling-Faria (E) share their motivation for volunteering with us, how the experience has impacted the students' education, and, of course, their favorite aquarium animals.

To start off, what made you want to volunteer with Save The Bay?

- **L:** I have a passion for animals and have always loved aquariums, so Save The Bay was a great fit for both interests.
- **J:** I'm interested in studying marine biology and wanted to do something that would make a difference.

What do you most look forward to while volunteering at the aquarium?

- **J:** My favorite part is educating guests about the touch tank animals and helping to take care of those tanks.
- **L**: I like learning from the other volunteers, interns and aquarists. Everyone knows a ton about the animals and you can always learn something new.

By now, you both know a lot about Bay species! What animal in the aquarium is your favorite?

- **J:** Smooth dogfish. The sharks are so cool.
- **L:** Baby trunkfish! I also like the skates and the egg cases in the hatchery.

How have your Save The Bay experiences impacted your education?

- **J:** The aquarium is a great opportunity to learn outside the classroom and explore interests that I might want to pursue in college.
- **L:** I like getting to learn more about my passion for animals and sharing that with guests.
- **E:** It's important for students to get real life experiences before they decide what to pursue in college. The Exploration Center lets students develop practical job skills while learning beyond the classroom.

Does anyone have plans of continuing their education in marine biology?

- **J:** I'm thinking of studying marine biology in college.
- **L:** I really like animals and want to work with them, and I like marine science, too. I actually put my experience with Save The Bay on my college applications and have been accepted to a bunch of schools.

Congratulations! Is there anything you'd want other students to know about volunteering with Save The Bay?

- **L:** If you have a passion for animals, it's a good hands-on approach to learning more about them.
- J: The more you know about the animals, the more you'll enjoy volunteering. You can talk with the guests and teach them a lot about all the animals you like. ■

SANTE TE

Interested in volunteering at our Exploration Center and Aquarium? Contact Save The Bay Volunteer and Internship Manager July Lewis at jlewis@savebay.org to learn more!

SAVE THE BAY_®

A Lifetime of Loving Narragansett Bay



BY JACKIE CARLSON,
MEMBERSHIP AND INDIVIDUAL GIVING MANAGER

"I must say my brother was always attached to the water," says Kenneth Mahler, remembering his late brother, Daniel J. Mahler III.

Daniel was born in Providence in 1940 and spent much of his childhood making memories on Narragansett Bay, from stopping by Rocky Point for clam cakes and chowder to sailing Narragansett Bay with his brother and parents and overnighting in a number of harbors, with Potter Cove being a family favorite. Kenneth recalls that, as children, the two brothers would marvel

"Daniel returned home each summer, and was pleased to see the health of the Bay improving..."

at the boats they saw crossing the Bay, especially the old M/V YANKEE that would pass Conimicut Point each evening at 7:24 on the dot.

These cherished family moments shaped

Daniel's career and adult life. After attending Roger Williams Junior College, he completed his bachelor's degree in Naval Architecture and Marine Engineering at the University of Michigan and joined a naval architecture firm in Seattle before owning his own firm. Even in semi-retirement, Daniel continued to work on boat design projects.

In his free time, Daniel was an avid sailor and his love for designing and working on boats started in high school. Kenneth recalls that, at that time, his brother and a friend even restored an old Yankee Dory sailboat:

"He rebuilt the dory from bones, learned the way to steam ribs or frames, built a mast and boom from a long piece of Sitka spruce, patched the old canvas sails, and sailed the daylights out of the boat with his friends, myself, or alone for several years."

Throughout Daniel's life, he was always connected to the water and had a special connection to Rhode Island's most magnificent natural feature: Narragansett Bay. As he grew older, he worried about the health of his beloved Bay. Even though he moved to Seattle in 1965, Daniel returned home each summer, and was pleased to see the health of the Bay improving during these trips. He attributed those improvements to Save The Bay's mission to protect and improve Narragansett Bay.

When Daniel passed away in August 2021, he left a generous legacy gift to Save The Bay as a member of our Seagrass Society. Kenneth shared that he and his brother shared the same hope that Save The Bay can continue to partner with state and local governments and the residents of the watershed to monitor the continued health and stability of the Bay well into the future.



When Daniel Mahler III passed away last year, he left a generous legacy gift to Save The Bay to support our efforts to protect and improve Narragansett Bay for years to come.

About the Seagrass Society

Remembering Save The Bay in your will is one of the most meaningful gifts you can make. Those who join our Seagrass Society by including Save The Bay in their estate plans help ensure the health of the Bay for generations to come. For more information about planned giving, please contact Maureen Fogarty at 401-272-3540 x109 or visit savebay. org/planned-giving.

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