The Nature Conservancy
Long Island

The Nature Conservancy, Long Island Chapter
250 Lawrence Hill Road
Cold Spring Harbor, NY 11724
nature.org/longisland

Long Island Conservation News Inside

Old-Fashioned Family Picnic

Long Island staff welcomed families to Mashomack Preserve for an old-fashioned picnic in August. Children, parents and grandparents unplugged from electronic devices and enjoyed a summer day of stories, music, pizza, kayaking, paddleboarding and a haul seine on the shore of Peconic Bay. Kids delighted in identifying crabs, porgies and other marine species. Parents learned about nitrogen pollution – and what they can do to protect Long Island's waters for the next generation.


© Anthony Graziano

Summer Benefit Raises Funds and Awareness for Water Quality

Thanks to the leadership of hosts Priscilla Rattazzi and Chris Whittle, and the support of 350 guests, our Summer Benefit: An Evening on Georgica Pond raised more than $850,000 for clean water and conservation on Long Island!

Cover Photo © Marian Lindberg/TNC
Marine scientist Chris Clapp with a horsehoe crab.

NATURE
LONG ISLAND

CONSERVATION NEWS FROM THE NATURE CONSERVANCY

The Nature Conservancy

Long Island

nature.org/longisland

FALL 2015/WINTER 2016

A Letter from The Director


© Marian Lindberg/TNC

Twice a year, we send you this update on the conservation work The Nature Conservancy is doing across Long Island. We always enjoy reporting good news – like the comeback of our birds of prey to Long Island's skies. For the second consecutive year, nesting bald eagles are gracing the coastline at the Conservancy's Mashomack Preserve and raising young there. Other good news: In Mastic and Lazy Point, novel programs are underway to remove vulnerable coastal homes whose owners wish to relocate, and the land will be open to the public. Our staff has been deeply involved in getting these programs approved and funded.

Of course, not all news is good – nearly every coastal and fresh water body on Long Island was compromised by nitrogen pollution this summer. But thanks in part to our efforts – and your voices – $5 million was earmarked in the New York State budget for development of a nitrogen reduction plan.

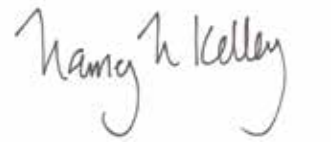
We enjoy telling you about our work to help solve the biggest environmental challenges on Long Island. We also recognize that your support, advocacy and concern drive the Conservancy's success on Long Island – and our organization's successes in 35 countries around the globe.

We would like to hear more from you! We encourage you to share with us how you are interacting with the natural world – what activities you enjoy, what you observe and what inspires you about nature. You can connect with us through our social media channels on Facebook and Twitter or email us at longisland@tnc.org.

Write letters, send photos, call or stop by our office. Tell us what's on your mind. Because we're conserving nature for plants and animals but also for you! After all, people are part of nature – not separate from it. The world we depend on depends on us!

NATURE.ORG/LONG ISLAND
Center for Conservation
142 Route 114
East Hampton, NY 11937

Uplands Farm Sanctuary
250 Lawrence Hill Road
Cold Spring Harbor, NY 11724



Nancy N. Kelley
Executive Director
The Nature Conservancy on Long Island

Ask a Scientist: Dr. Nicole Maher

Why do Long Island's ocean beaches look different in winter than in summer?

In summer, more water washes in on the incoming wave than rushes out as the wave recedes. Some water filters down through the porous sand, so that gentle waves tend to deposit sand. In contrast, the larger crashing waves we experience more frequently during fall and winter re-suspend sand particles and move sand off the beach.

Send your question to longisland@tnc.org.

On The Land

Ten Acres Donated for Preservation

Thanks to the generosity of a conservation-minded couple, ten acres are being added to already-preserved lands on the North Fork in East Marion. With close proximity to Peconic Bay, the wooded parcel, owned by Frank and Camille Sinatra, was donated to Southold Town in spring 2015. The Town accepted the donation for the purposes of passive recreation, as it adds to the network of existing preserved lands in the area, such as the Ruth Oliva Preserve at Dam Pond. Preservation of vacant parcels along Peconic Bay is important to maintaining good water quality in the region.

The Nature Conservancy played a key role in advising the donors and seeing the preservation of the parcel through to its completion.

"We are grateful for the generosity of the Sinatra family and for their commitment toward furthering the Town's preservation efforts," said Southold Town land preservation coordinator Melissa Spiro.

Kids for Conservation

Donning headdresses of various animals from coral reef, rainforest and other imperiled habitats, first graders from the East Woods School in Oyster Bay are playing an important role: they are learning about conservation and helping to contribute to its success. The students, taught by Christina Maass and Kate Aquilino, learn about endangered and threatened habitats around the world and are helping to save these species and places through their fundraising efforts.

The Nature Conservancy's Conservation Lands Director Joseph Jannsen says, "I love the enthusiasm and interest of these young philanthropists. They are so eager to understand more about the natural world around them and their support of conservation work is a critical component to mission success!"

Superstorm Sandy: Undevelopment in Brookhaven

Seven shoreline homes, precariously situated in low-lying marshland in Mastic Beach, will soon be demolished as part of a coastline restoration project in Brookhaven.

The houses, currently owned by New York State, were purchased after the October 2012 Superstorm Sandy. They were flooded at the time and are at high risk of future flooding. The Nature Conservancy is working with the Town of Brookhaven to restore the area to its natural state.

"Much of the flooding in the area occurs where runoff from major storms collides with a rising high tide from the bay," says Randy Parsons, the Conservancy's Conservation Policy and Finance Advisor. "The marshes here were historic flood plains around the fringes of the bay which stored water, absorbing it like giant sponges, then releasing it during low tides. Returning this land to its natural state will help reduce flooding impacts while also improving water quality."

Summer Interns Get Their Feet Wet

From social media to marine conservation, four young people spent this summer learning about different Nature Conservancy programs.

KRISSY LINACRE

"I am very grateful to have had the opportunity to serve as a social media intern. As a recent graduate of Adelphi University majoring in Environmental Studies, I am glad that I've gained experience working with one of the largest environmental organizations in the world so early in my career. I am inspired to continue using the power of social media to raise awareness about the important environmental issues The Nature Conservancy deals with daily."

MATTHEW GRASSO

"I thoroughly enjoyed working with The Nature Conservancy this summer as a Conservation Steward on Long Island. As a native Long Islander I enjoyed reconnecting with the landscape and working on various preserves and sanctuaries. The job was both challenging and rewarding and I learned the many complex responsibilities involved with stewardship and land management. I have always valued The Nature Conservancy and its mission and I hope to continue directing my career toward that vision."

KARA BOWERS

"This summer, I had the opportunity to work with The Nature Conservancy as the seasonal Marine/ Coastal Conservation Steward. Through this position I was exposed to many different facets of the Conservancy's work, from shellfish restoration to monitoring Piping Plover breeding sites. Most of my time was spent monitoring the hard clam population in the Great South Bay and raising oysters at Mashomack Preserve. Before this experience I knew very little about shellfish so I really enjoyed learning about clams and oysters and their ecological and economic importance to Long Island."

CHARLOTTE MULLIGAN

"I spent a lot of time on Uplands Farm when I was a child. Exploring the expansive campus had a tremendous effect not only on my character, but on my career path. I found the mysteries of nature and science to be enticing and wanted nothing more than to be a part of such an exciting field. This past summer, as a senior in high school, I interned on the beautiful lands where I started. Except this time, I was lucky to be working directly with the scientists whom I used to admire from afar!"

Russell Albanese: Innovator and Trustee

Russell Albanese, right, with his wife Marilyn and guests at the Conservancy's summer benefit. © Rob Rich

No rain dance is necessary for Russell Albanese. His company's Solaire apartment building obtains water in a more reliable way, by treating wastewater and reusing it for roof garden irrigation, cooling water, and toilet flushing.

Albanese, a trustee of the Long Island Chapter, has been involved in building construction his entire career, but in his role as chair of the Albanese Organization he began focusing on environmentally advanced approaches fifteen years ago. Now the Long Island native is a strong advocate for more widespread use of integrated water management systems like the one at Solaire, a certified LEED Platinum building managed in conjunction with Natural Systems Utilities.

Located in Manhattan's Battery Park City, the 293-apartment Solaire has reduced its water intake by 55% as a result of the treatment processes located in the building's very clean, pipe-laced basement. The building has also reduced its sewage outflow to the municipal sewer system by 64%. There are energy savings, as well.

Can such a system work on Long Island?

"Definitely," says Albanese. He points out that in addition to cost savings for building owners, such water reuse systems reduce the discharge of nitrogen and phosphorus and can therefore contribute to revitalizing Long Island's water bodies. Excess nitrogen from conventional systems – septic systems and cesspools – has fueled algae blooms, which are not only dangerous to humans and pets but also deplete oxygen, thereby endangering fish and other marine life.

"In general, buildings with projected wastewater flows greater than 15,000 gallons per day – about 125 units – should consider complete in-building water reuse systems," says Zach Gallagher, vice president of Natural Systems Utilities. Retrofit opportunities are available for existing buildings and developments.

Natural Systems Utilities is pursuing this concept with Suffolk County, suggesting that it follow the lead of places such as New Jersey, Connecticut, and Massachusetts, which allow in-building wastewater treatment and reuse where a high level of treatment is required and a responsible management entity with a proven track record of success is liable for performance.

"We're so fortunate to have Russ on our board," says Nancy Kelley, director of the Long Island Chapter. "He is a strong and fiercely intelligent advocate for Long Island's environment and people, which he backs up with action. He really cares about our quality of life now and for the future."

What's Happening in our Waters?

Dubbed by the Suffolk County Executive as "the biggest crisis this County has faced in generations," nitrogen pollution from sewage and the deterioration of water quality on Long Island present a serious but solvable problem.

Restoration and protection of Long Island's bays, harbors, lakes and the sole source drinking water aquifers for nearly three million Long Islanders require adjusting the way water is used and managed, as well as making substantial investments in upgrading the technology used to treat and transport waste-water. Groups as distinct as IBM and local environmental advocacy organizations agree on the need for these measures.

© Anthony Graziano

This year, thanks to advocacy from a host of organizations and citizens, $5 million was allocated for Long Island water quality improvement in the New York State budget. This funding will be used to create a plan to tackle our water quality challenges, and the Conservancy is working to ensure that the plan is thorough and well-executed.

We continue to work with business, community, and elected leaders to find reasonable ways to help homeowners pay for updated wastewater treatment systems, which will remove nitrogen from wastewater. Such efforts will likely include expansion of the community preservation funds and public funding through voter-approved ballot propositions, among other sources of funds.

In the meantime, public awareness of the issue continues to be a priority. Perhaps you read about a massive fish-kill in the Peconic Estuary this summer or about the diamondback terrapin die-off in the same location that was a direct result of nitrogen pollution in the water. Or maybe a neighbor told you about the closing of numerous ponds to swimming across the Island due to toxic blue-green algae. These events are indicators that our waters are in trouble. Raising public awareness is an important step in solving the problem.

Among other efforts, the Conservancy is completing a series of short videos to illustrate the vital role Long Island's bays play in the lives of residents, including a boat maker, fisherman, restaurant owner and coastal village mayor. The videos are personal vignettes that portray the connections these people have with our local waters, and what is at stake if water quality continues to decline.

To complement the personal stories, a series of educational videos will be produced on important topics such as where our drinking water comes from, the connections between land and water, a primer about septic systems, and the impacts nitrogen pollution has on our water. The videos will be disseminated online and will be available for public meetings, events and classroom use. Please contact us at longisland@tnc.org if you are interested in using the videos.

To see more about our efforts to improve water quality on Long Island, check out the centerfold map.

What's Old is New Again

Aerial view of the new inlet. © Charlie Flagg

It had been almost two centuries since water freely flowed in and out of Great South Bay through Old Inlet, across an undeveloped stretch of Fire Island's barrier beach southeast of Bellport Village – where the inlet gradually filled with sand and closed by the year 1800.

That all changed in October 2012 during Superstorm Sandy, and since then the area is more commonly called "New Inlet." After three summers, the fear and uncertainty that initially pushed some residents of the mainland to call for its manual closure have faded, and now people in these same communities can be heard saying that the New Inlet is the best thing to have happened to Great South Bay in their lifetimes.

Almost immediately after Sandy carved a new inlet through the Otis Pike High Dunes Fire Island Wilderness Area, the water in eastern Great South Bay (aka Bellport Bay) became clearer and saltier. Seals, river herring, and a variety of sport fish quickly became abundant; hard clams were growing faster. On the first anniversary of Sandy, National Geographic Society called the new inlet "Sandy's Silver Lining." [1]

On sunny days, the waters around the sand shoals and new islands ringing the inlet appear a turquoise that is more reminiscent of the Caribbean than Long Island. Families, paddle boarders, sailors, and fishermen flock to its clear, flowing waters.

This type of recovery has precedent: similar observations were made during and after the previous formation of other inlets along Long Island's South Shore bays. Perhaps the most famous was the well-studied resurgence of shellfisheries and the decrease of harmful algae blooms after Moriches Inlet was re-opened in 1953.

The decision (so far) to forgo spending up to $20M on dredges and bulldozers to close the new inlet, and instead allow for the kind of natural sand and water flow that has shaped and maintained Long Island's barrier beaches for thousands of years, was not made lightly. The state/federal decision not to rush in and close the inlet hinged on data from a network of water monitors that were in place before, during and after Sandy which invalidated predictions that a new inlet would threaten life and property on the mainland. Nature Conservancy scientists were instrumental in communicating scientific findings to community members and public officials so that decisions concerning the fate of the new inlet would be based upon facts and data rather than fear and speculation.

The inlet is still being studied by government agencies, and the ultimate fate of New Inlet remains uncertain. But science has so far helped to guide wise and cost-effective decisions. In the meantime, we can all enjoy the benefits of New Inlet, "Sandy's silver lining."

[1] http://video.nationalgeographic.com/video/news/hurricane-sandy-inlet-vin

Conservancy staff at the new inlet.

Eagles and Osprey Are Making a Comeback

Mashomack Preserve's nesting bald eagles. © Jim Colligan

Take a look at the skies above Shelter Island and you may spot a soaring bald eagle or two. This past summer, a pair of eagles has successfully fledged chicks at the Conservancy's 2,039-acre Mashomack Preserve – two in 2014 and three in 2015.

That's a lot to be excited about, according to Preserve Director Michael Laspia. "It's only been a few years since nesting eagles returned to Long Island. And there are only five pairs nesting in the New York metro area."

The eagles, along with other birds of prey, were severely threatened by toxic pesticides like DDT. The poison built up in the raptors' bodies as they ate birds and mammals that had consumed insects and plants contaminated with the chemicals. The result was diminished fertility, plus eggs with shells so fragile, they broke under the parents' weight.

Thanks to a ban on DDT, and massive re-introduction efforts, eagles across the nation are making remarkable recoveries. In 1963, there were fewer than 500 nesting pairs. In 2007, they were removed from the endangered species list with more than 10,000 pairs counted.

Continued vigilance is needed to protect these majestic rulers of the sky – including improving water quality.

"Because the bald eagles' diet consists mainly of fish, we have to do all we can to keep nitrogen pollution out of our waters," added Laspia. "But it's not just for the birds – there are a lot of people who live here and enjoy Long Island's marine waters."

Cormaria Welcomes Ospreys

Cormaria is a spiritual retreat house in Sag Harbor whose usual guests are humans, but in early summer 2015 a pair of osprey got a new home on the 18-acre site thanks to a nesting platform built by local Boy Scouts and The Nature Conservancy.

About a dozen scouts from Sag Harbor Troop 455 built the platform under the direction of Scoutmasters Chris Cook and Pat Witty.

Employees from the Conservancy, led by Paul D'Andrea, put the platform into position atop a locust tree cut from the backyard of scout leader Ken Yardley, and his wife, Mimi, a Scout volunteer.

Says Mimi Yardley, "Paul told me it might be a year before the birds used the platform. The next day I went down there and there was the start of a nest."

"I think the birds were watching us build it," added Jessica Donohue from the Conservancy.

A pair of chicks hatched in June.

Says Sister Ann Marino, "It's our responsibility to take care of the planet." Still, Sister Ann is glad that the osprey moved from their prior home – atop the Cormaria chimney.

Sister Ann Marino in front of Cormaria. © Marian Lindberg/TNC

Eelgrass Provides Important Water Quality Indicators in Long Island Sound

© Kristie Giannetto/TNC

In addition to being a nursery for fish and shellfish, eelgrass can serve as a "canary in the coal mine." When eelgrass ceases to grow where it once did – such as in the Long Island Sound – the change may signal water quality problems with negative consequences for people and nature.

Following a multi-year investigation into the causes of eelgrass decline across Southern New England that identified excess nitrogen as the main culprit, Nature Conservancy scientists decided to examine the north shore waters of Oyster Bay in more depth.

The easternmost town in Nassau County, Oyster Bay includes a stretch of Long Island Sound coastline from eastern Roslyn Harbor to Cold Spring Harbor. The Town has 65 square miles of water within its borders, most of it in the Oyster Bay/Cold Spring Harbor watershed, which is densely developed in parts.

Nitrogen pollution is recognized as a threat to local water quality, yet while efforts to mitigate the problem have been directed at stormwater management and sewage treatment plant upgrades, the impacts of nitrogen pollution from other sources persist.

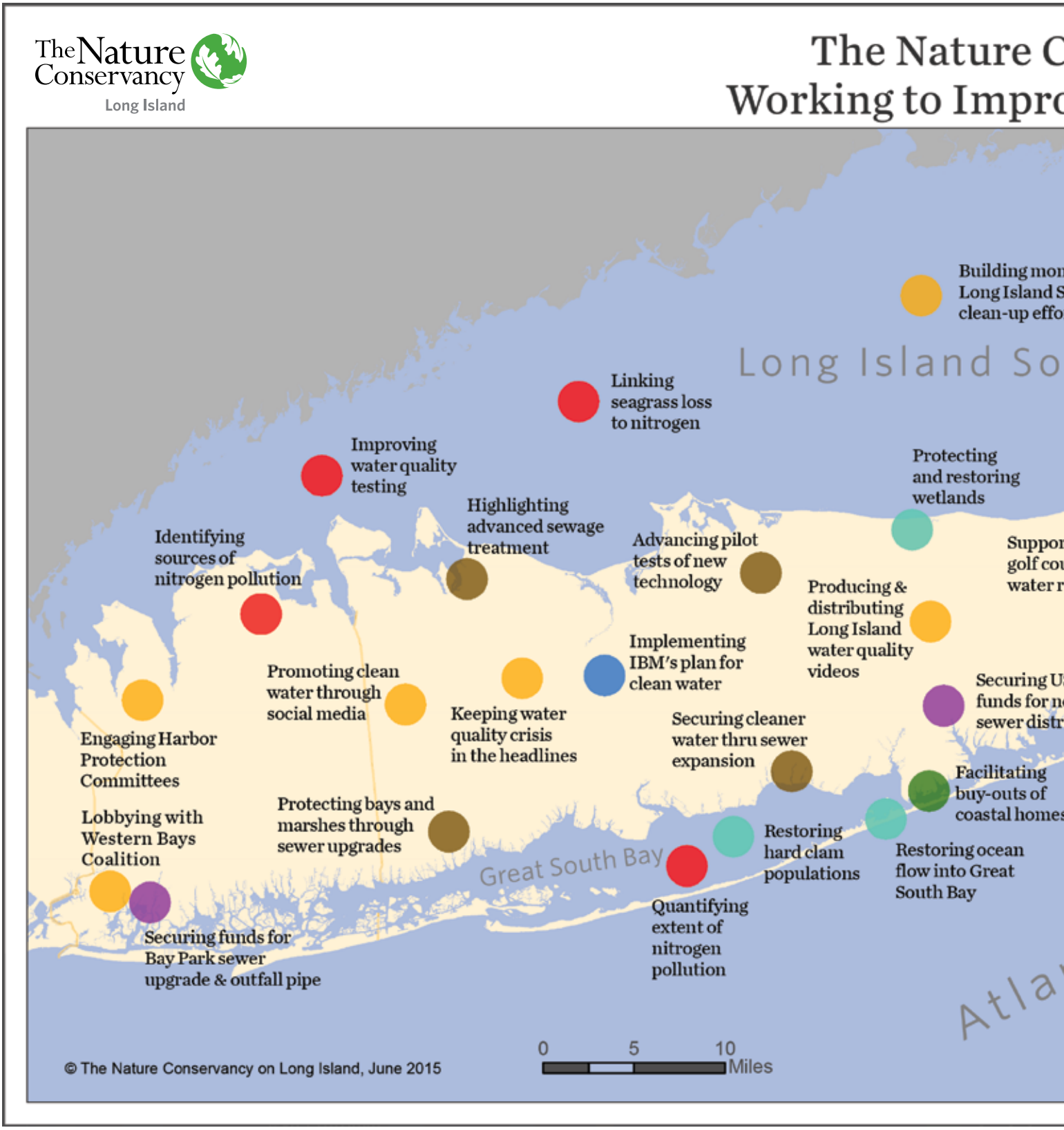
"Completing an assessment to better understand where nitrogen is coming from in northern Nassau County is a critical step toward helping communities set targets and develop strategies needed for water quality and habitat recovery," said Chantal Collier, director of the Conservancy's Long Island Sound program.

On the other side of the Sound in coastal Connecticut, the problem of eelgrass decline has also been enlightening.

"Historically, there was seagrass in Westport Harbor, but it hasn't been seen there since the 1940's" explains Holly Drinkuth, director of outreach and watershed programs for the Conservancy in Connecticut. "We knew seagrass had potential to survive; we wanted to know why it didn't."

Research identified excess nitrogen – which can lead to algae blooms that create unsafe water conditions, deplete oxygen, and ultimately kill sea life – as the cause. The surprise was where it was coming from: Only three percent of nitrogen pollution in the Saugatuck River watershed comes from the sewage treatment plant; the majority is from septic systems. Nitrogen pollution threatens eelgrass by allowing algae to grow out of control, which decreases light in the water and shades out the eelgrass. Water clarity declines and eelgrass becomes increasingly starved for light – this stress makes eelgrass more prone to disease, diminished growth and eventual die-offs.

"Connecticut and New York have worked hard to reduce nitrogen coming from sewage treatment plants," Drinkuth says. "To restore conditions that habitats and marine life in Long Island Sound need to thrive, we must direct attention toward the other sources like septic systems that leak nitrogen into our groundwater and streams."


The Nature Conservancy
Long Island
The Nature C
Working to Impro
Long Island So
Building mon
Long Island S
clean-up effo
Linking seagrass loss to nitrogen
Improving water quality testing
Protecting and restoring wetlands
Highlighting advanced sewage treatment
Identifying sources of nitrogen pollution
Advancing pilot tests of new technology
Suppor
golf cou
water r
Producing & distributing Long Island water quality videos
Implementing IBM's plan for clean water
Promoting clean water through social media
Keeping water quality crisis in the headlines
Securing U
funds for n
sewer distr
Securing cleaner water thru sewer expansion
Engaging Harbor Protection Committees
Facilitating buy-outs of coastal homes
Protecting bays and marshes through sewer upgrades
Lobbying with Western Bays Coalition
Great South Bay
Restoring hard clam populations
Restoring ocean flow into Great South Bay
Quantifying extent of nitrogen pollution
Securing funds for Bay Park sewer upgrade & outfall pipe
Atla
0 5 10 Miles
© The Nature Conservancy on Long Island, June 2015

Conservancy:
ove Water Quality