

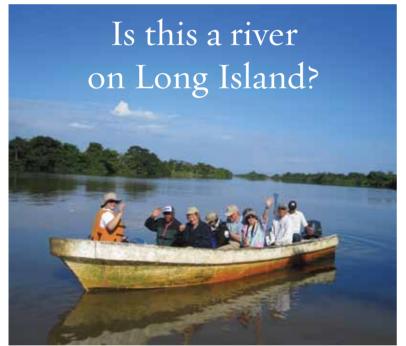
The Nature Conservancy on Long Island 250 Lawrence Hill Road Cold Spring Harbor, NY 11724 www.nature.org/longisland

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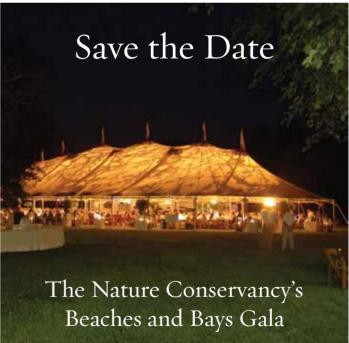
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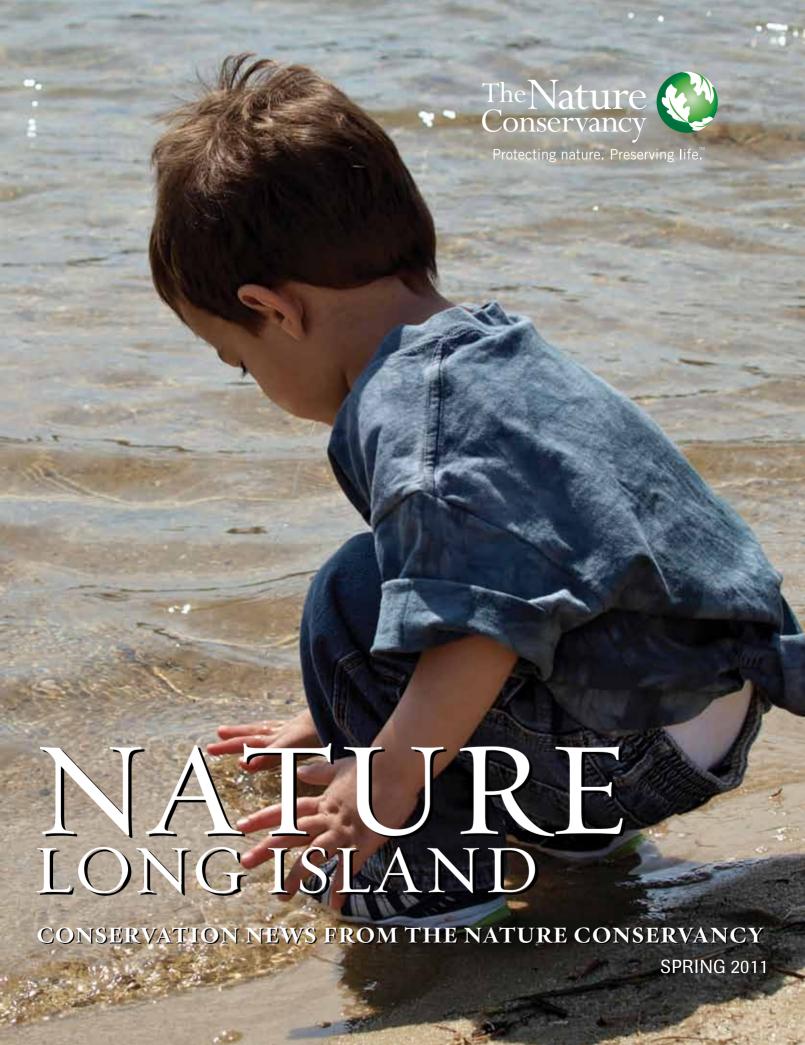


In fact, it's the Cuero y Saludo in Honduras, (look closely and you will see mangroves and palm trees). In February, a group of Long Island trustees traveled there to see the winter habitat of many of our local birds – osprey, warblers, tanagers and plovers. Natural areas in Honduras are threatened by development, warming temperatures and rising tides – just as they are on Long Island. The Conservancy's Latin American program is working closely with communities and government partners to raise awareness and funds to protect and manage land – for the birds and for our children – just as we are doing here. © Lucy Cutler/TNC



Honoring
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Director's Message Setting the Stage for Conservation Success

E arlier this year, Nature Conservancy staff in New York attended a three-day workshop to better understand how our changing climate will impact both our natural systems as well as humanity. On Long Island, a changing climate means a rise of sea level, loss of wetlands and threats to water quality. We are trying to get ahead of these threats by helping local towns use our coastal resilience tool (see article on page 7). This tool is intended to help decision-makers better protect people, property and natural resources.

Conserving nature in a changing climate may prove to be one of the greatest conservation challenges of our time. But one thing remains clear: we must continue to preserve lands and restore waters so that nature and people can persist well into the future, both here and throughout the globe.

Toward that end, we're near completion of some key land preservation goals in Pipes Cove (page 5), where we have worked with partners to protect 700 acres of sensitive wetlands, beaches, dunes, and upland

forests. And, we're looking to the future of other natural places – such as Plum Island (see article on page 3), where we hope to influence the preservation of another 800 + acres in the Peconic Estuary.

Nature has been and always will be one of our most valuable resources. Natural lands provide millions of dollars in benefits such as clean drinking water and storm protection, in addition to the peace, serenity and inspiration they evoke. These benefits have recently been *quantified* in a comprehensive way by the Trust for Public Land (see article on page 3).

We're continuing to keep our preserves as diverse and productive as possible by addressing today's threats and preparing for what may happen in the future. We're gaining ground on understanding the challenges to our clam restoration efforts and how water quality affects the productivity of our seagrass beds and the estuary as a whole (page 11). We're basing our work on the best available science, and working collaboratively with a diverse array of interests to adapt our conservation practices to help both people and nature adapt to a changing world. (see article on page 8 – Carmans River)

The Conservancy's work would not be possible without your help and influence. You can help by supporting the laws intended to protect our natural resources, by planting native plants this spring (read article on page 6), and by supporting local conservation efforts. We appreciate those who are enacting positive change (see article on page 10). We thank all of you who are helping fulfill the very important mission of helping nature and humanity co-exist.

We hope that you are inspired by this newsletter and by nature – its beauty, its function and its gifts.

Sincerely

Nancy N. Kelley Executive Director

The Nature Conservancy on Long Island

namy h Icelley



Scallops and other commercially important shellfish live in seagrass meadows. This important habitat is stressed in Long Island's and Southern New England's waters. © Carl LoBue/TNC

f you've enjoyed striped bass, scallops or clams this lacksquare year, you've got seagrass to thank for that meal.

But seagrass beds have been dying off in some of Long Island's bays and estuaries, contributing to the decline in finfish and shellfish populations and undermining local fishing industries.

In order to benefit both people and nature, The Nature Conservancy has been working to restore this key underwater habitat, starting with understanding the reasons for its decline in the waters of Long Island and Southern New England.

"Since the 1930s, regional seagrass populations have suffered massive losses from disease, brown tides, impacts from multiple uses of the waterways, and other causes not currently understood," explains Chris Clapp, estuary specialist. "Some areas are losing more than 50 percent of their historic acreage. We're working to restore seagrass to help restore our shellfish populations, increase commercial fishing opportunities and improve local water quality."

Seagrass beds are highly diverse and productive habitats that provide economic value. They provide shelter for scallops, clams, blue crabs and fish. This habitat is also a highly important link in the food chain, with hundreds of species feeding on seagrasses worldwide. Seagrass also provides "ecosystem services" – it buffers shorelines against wave action; traps, filters and recycles nutrients; stabilizes the bay bottom and improves water quality.

The Conservancy is studying both the genetic diversity of regional seagrass populations and the impacts of multiple stressors on seagrass health. It is generally believed that local seagrass has a limited gene pool, making the population significantly more vulnerable to impacts than a more diverse population would be.

"Rarely is there a single stressor that is the sole cause of poor health in seagrasses, however there has been little research done to determine the impacts of different stressors on seagrass health," explained Marci Bortman, director of conservation science. "Knowledge from this study will guide restoration efforts, both in terms of how to improve species resiliency in the water and how to address the threats to successful seagrass restoration."

A successful restoration of this critical habitat will provide far-reaching benefits towards improved quality of life for current and future generations who work and live upon the waters of southern New England and Long Island.

This initiative will be part of a long-term, comprehensive, multi-governmental effort to protect and restore our regional bays and estuaries. Efforts to rebuild populations of finfish and shellfish such as the Peconic Bay scallop are unlikely to achieve long-term success without adequate protection and restoration of seagrass meadows.

Ties to our Local Landscapes



A bird in the hand. Avid birder and conservation advocate Paul Vermylen shows off one of his Audubon prints. © Marian Lindberg/TNC

aul Vermylen, who lives next to the Conservancy's Matheson Meadows Preserve in Lloyd Neck, is a collector of Audubon prints. But for the last eight years, Paul has been collecting something else donations from neighbors for The Nature Conservancy to help defray stewardship expenses.

Paul's outreach has also led to annual gatherings, increasing his neighbors' understanding and enjoyment of the 40-acre preserve. Donated to the Conservancy in 1968 by Anna Matheson Wood, the preserve is home to kestrels, eastern meadowlarks and chipping sparrows.

The Conservancy is deeply grateful to Paul for his efforts: Not everyone who lives near a Conservancy preserve can display a first edition Audubon, but anyone can be a good steward of the land.

Good stewardship often starts by caring about a place, as demonstrated by Anthony Graziano, an information technology management consultant who frequently visits Calverton Ponds Preserve with his camera. The 350-acre assemblage of pine barrens and coastal plain ponds is cooperatively owned and managed by the Conservancy and Suffolk County Parks.

"Calverton Ponds is a subtle kind of place that requires multiple visits to appreciate," explains Tony. "This is true of many natural areas. The first time you see them you take in the big picture, but then each return visit reveals a bit more nuance about the place. Different seasons, different times of day reveal new moods, shapes, colors, light. No two visits are the same."

Tony photographs local Conservancy preserves "because it is important for people living here to be aware of the treasures that are all around them. My hope is that greater awareness will lead to greater support and funding of conservation programs."

For Sandra Walsh, an outdoor enthusiast and philanthropist with local ties to Westhampton Beach and the North Fork, getting people out into nature is important to her vision of a healthy society. Thanks to Sandy's support through the Leo S. Walsh Foundation, the Conservancy is refurbishing the boardwalk at the 20-acre Wolf Swamp Preserve on Millstone Brook Road. Southampton.

The preserve offers an opportunity to enjoy freshwater wetlands home to a diverse array of plants and wildlife.

According to the Conservancy's Joe Jannsen, who is responsible for stewardship of the Conservancy's 65 preserves on Long Island, "Spring is a great time to visit a preserve, whether it's a walk through the woods or along the shore, and at some preserves, such as the David Weld Sanctuary, you can experience woods, wetlands and beach on the same visit."

For those who might like to do more than walk through a preserve, opportunities exist for serving as a volunteer preserve monitor. Bob Kemmann has served this role for many years at the Weld Preserve in Nissequogue, often hosting beach clean-ups.



To find specific locations of the visitor preserves mentioned above, or another wild place open to the public near you, visit www.nature.org/longisland

\$2.74 Billion Payback from Protected Land

on Long Island!

Oes it pay to protect Long Island's parks and open space? You bet.

A report, The Economic Benefits and Fiscal Impacts of Parks and Open Space in Nassau and Suffolk Counties, found that parks and open space provides a \$2.74 billion annual economic boon to local governments and taxpayers.

Open space preservation is eight times less costly than new residential development. It saves taxpayer money by reducing demand for public services. The annual cost of public services (schools, police and fire departments) to new residential development in Nassau and Suffolk is \$33,000 per acre, while the cost of open space and parks in the two counties is just \$3,750 per acre.

In addition, a home's proximity to parks and open space increases its value.

"The good reasons to conserve land for health and well-being are backed with the strength of financial incentives," said Kevin McDonald, director of public policy and finance.

Recreation and tourism in parks, open space

- Non-resident visitors to Long Island's spend \$615 million annually, generating \$27.3 million in sales tax
- 611,000 residents engage in physical activities in parks, generating health benefits of \$164 million annually

Local agriculture and farms

- Agriculture produces direct sales of \$288 million annually
- Vineyards attract 1.2 million annual visitors, spending \$90 million during their visits, and \$33.3 million directly at wineries

Government cost savings

- Open space captures precipitation or slow its runoff and reduces stormwater management costs by \$23.9 million annually
- Trees and shrubs remove air pollutants reducing pollution control costs by \$18.9 million annually

Parks and open space provide "ecosystem services" or ongoing natural benefits free of charge.

Pine Barrens forests that overlie Long Island's aquifer help keep our drinking water supply clean and pure, thus eliminating the need for expensive water filtration systems. Protecting source water areas ensures clean drinking water and reduces water cost up to 10 times. Another example lies in Long Island's wetlands, which provide a natural buffer against storms and help keep the water in our bays and harbors clean. And, naturally-occurring seagrass meadows provide nursery habitat for commercially important seafood like striped bass, flounder and shellfish.





The report was prepared by the Trust for Public Land and sponsored by the Long Island Community Foundation and the Rauch Foundation.

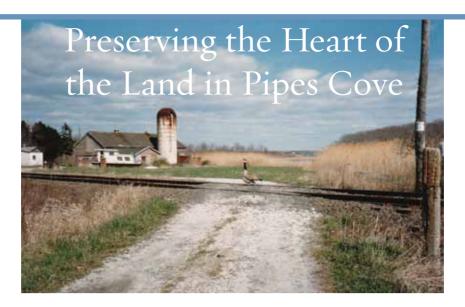
Copies of the report can be downloaded at www.tpl.org/longislandanalysis

Plum Island's Future

Cloaked in secrecy, Plum Island's animal research facility has long been the source of legend. It is infamous for hosting the federally-owned Animal Disease Center. It's even the title of a mystery novel by Long Island author Nelson DeMille and the conspiracy-theory work "Lab 257: The Disturbing Story of the Government's Secret Plum Island Germ Laboratory."

Now, the 840-acre parcel of land – nestled between the Peconic Estuary and Long Island Sound – is for sale. Its future is uncertain. (continued on page 5)

Plum Island sits between two nationally-recognized estuaries: the Peconic Bay and Long Island Sound. This largely undeveloped island, nearly three miles long and one mile wide has seven miles of natural shoreline. It is for sale and could be slated for development. © USDA



This spring, another 24 acres of land in the greater Pipes Cove region has been added to preservation efforts, thanks to the town of Southold, The Nature Conservancy and a family whose love of their land has spanned six generations.

Comprised of woodland, old field, fresh and saltwater wetlands, and a 2.5 acre pond, the land is home to osprey, geese, ducks, swans and deer. It was once the site of a dairy farm.

Today, the verdant pasture where Ayrshires, Holsteins, and Jerseys once grazed is overgrown. The milking barn has fallen to ruins. But the heart of the land very much remains.

In operation from 1898 to the 1960s, the Sill dairy was well known throughout the area. It delivered fresh milk and cream in Greenport, Southold, East Marion and Shelter Island (which the land looks out upon).

A great granddaughter of the original owners explained, "Great grandpa Sill was a blacksmith, great grandma Sill ran the dairy. She was a tough lady with a lot of heart. She had a name for each of her cows and was especially fond of two calves she named Maisy and Daisy who always got out and found their way home. She had beautiful flower gardens, fruit trees and a grape arbor by the old farmhouse."

"There are a lot of memories there," states her great granddaughter, with a nostalgic smile. "The land is so magnificent. You can smell the clover and honeysuckle. You can hear the Spring peepers. I love a windy day there. You can hear the wind in the woods. And the stars! In the open pasture, at night you can see all of the stars. You can close your eyes and almost see the cows grazing long ago."

The pond on site, surrounded by cows in family photographs, was formed when clay was mined for brick making by the Fulmer Brickyard, the farm's former owners.

The farm was passed down to Herman Sill; he and his wife Julia ran it up until the 1960s. Herman passed away in 1985 and Julia is now 101 years old.

"I am so happy that we were able to follow their wishes in preserving the land. They loved this farm and nature, and through dedicated efforts, their wishes have been fulfilled."

"I can't say enough great things about them. They were the most loving, generous and kind people." she states.

All of those traits seem to run in the family.



To see more photos of the farm visit **www.nature.org/longisland**









Photos courtesy of the Sill family

Too Much Nitrogen Troubling our Waterways



Marine scientist Carl LoBue prepares juvenile clams for their adult lives in unprotected waters. Clams help filter water and keep it clean, but they also need clean water to survive. Great South Bay's clam population remains susceptible to harmful algal blooms. Too much nitrogen is playing a role. © Kara Jackson/ TNC

For nearly a decade, The Nature Conservancy on Long Island has been working to restore depleted shellfish populations in the Peconic Estuary and the South Shore Estuary Reserve as part of an effort to return Long Island's bays and estuaries to their former glory. We've put about 5 million clams and 1.3 million scallops into our waters in order to jump-start spawning of new generations of clams and scallops and we have been documenting increasing numbers of wild-born shellfish in these areas.

But just putting clams and scallops into the water doesn't spell success. These bivalves are dependent on a food source that can be adversely affected by high levels of nitrogen going into our bays and estuaries. Too much nitrogen can lead to harmful algal blooms which threaten not only our natural systems, but also threaten human health.

Recognizing the need to identify sources of nitrogen entering our waters, The Nature Conservancy, New York State Department of State, and Suffolk County commissioned a study of Great South Bay and its watershed. The study advises on how to best invest water quality improvement dollars to maximize the benefits that can be achieved by reducing nitrogen loads to the bay.

"Nitrogen enters Great South Bay from a variety of sources including atmospheric deposition and fertilizer, but the dominant source is wastewater from septic systems," explains Carl LoBue, senior marine scientist. "Reducing the amount of wastewater entering our bays will benefit both humans and nature." Since the sole source of drinking water in Suffolk County is ground water, efforts to improve and protect the water quality of our bays also has a positive impact on the quality of the water we drink.

The Conservancy is working to identify more efficient residential septic systems and to implement public policies that include upgrading of existing septic systems.

According to Dr. Chris Gobler, Associate Professor at Stony Brook's School of Marine and Atmospheric Sciences, "We now know that excessive nitrogen loading is directly or indirectly promoting multiple species of harmful algal blooms in our bays which in turn diminish the abundance of eelgrass and bivalves."

"Long Island's bays and estuaries are under threat from too much nitrogen," said Wayne Grothe, marine conservation project director. "Removing it, either through sewage treatment plants or alternative septic systems, would result in the greatest positive change in water quality for our waterways."

Wise Planning for the Future of Carmans River and Great South Bay



The Carmans River overlies Suffolk County drinking water supplies. Over the past several years, local and county governments, civic and conservation groups, including The Nature Conservancy, worked in earnest to protect parcels of vacant land from development along the river. © Alida Thorpe

A rising in the heart of the Central Pine Barrens forest is the Carmans River, one of the largest and highest quality streams on Long Island. This 10-mile long water body – an important source of freshwater that feeds into Great South Bay – was facing intense development pressure that would have changed the fate of the river forever.

In February that scenario changed when the Brookhaven Town's Carmans River Study Group unanimously approved a watershed protection and management plan. The plan, created with the input of Nature Conservancy staff, will designate 9,100 acres to be preserved and places development and fertilizer use restrictions on 1,400 acres closest to the river.

"This plan is a classic implementation of Long Island's Last Stand, a coalition-based initiative to protect the most important 25,000 acres of open space on Long Island," said Kevin McDonald, director of public funding and policy, who advised the working group. "The Carmans River Plan cites development in proper, sensible places while protecting the area's most important body of water."

"The plan is arguably the most significant and productive partnership between government, environmentalists, and builders since the passage of the Pine Barrens Act of 1993," said Brookhaven Town Supervisor Mark Lesko.

"These tireless efforts will undoubtedly result in the protection of the Carmans River forever."

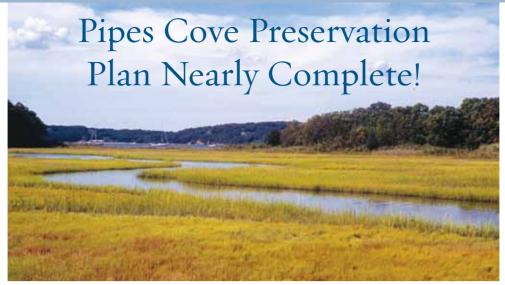
The plan also includes recommendations for invasive species eradication, containment of road runoff, and improved septic waste management, among other measures designed to protect the river's health.

"One of the restoration goals is to reduce the amount of nitrogen in groundwater that feeds the river to levels not seen since the 1980s," said Dr. Marilyn Jordan, senior conservation scientist who provided key scientific input for the plan. This reduction would not only improve the ecological health of the river, it also would improve water quality in Great South Bay and help reduce harmful algal blooms."

But the work is by no means finished. There are many hurdles to overcome as the plan moves into implementation. For now, an agreement has been reached that will protect the river, the forest and the Great South Bay, ensuring positive outcomes for both people and nature for future generations.



Read more about Long Island's Last Stand, our work to protect Long Island's last 25,000 acres at www.nature.org/longisland



Land preservation in Pipes Cove in the Peconic Estuary watershed helps protect the water quality in the bays and creeks of this nationally-recognized marine ecosystem. Clean water and healthy creeks and bays are critical to protecting these resources. © Kara Jackson/TNC

A juvenile osprey hovers over the water, emitting a series of staccato calls as if beckoning the fish below. A kayaker drifts slowly by the shoreline as a great egret stands at attention, awaiting its next meal.

This is Pipes Cove, Greenport and this peaceful scene will remain; 700 of a desired 800 acres have been protected in the greater Pipes Cove area.

Since 2003, The Nature Conservancy has been working with Greenport Village, Southold Town, Suffolk County, NYS Department of State and the U.S. Fish and Wildlife Service to protect the Pipes Cove wetlands, which lie within the Peconic Estuary.

The area is a beautiful mosaic of salt marshes, mud and sand flats, beaches and dunes, tidal creeks, open water, and forested uplands.

"Pipes Creek is one of few remaining undeveloped creeks in Southold, and one of very few such creeks in the entire Peconic Estuary watershed," says Randy Parsons, conservation finance and policy advisor. "Preservation of this habitat is important for both wildlife and people. Waterfowl, migratory birds, and commercially-caught fish and shellfish depend on this area. Preservation now will save hundreds of millions of dollars later for drinking water and surface water restoration."

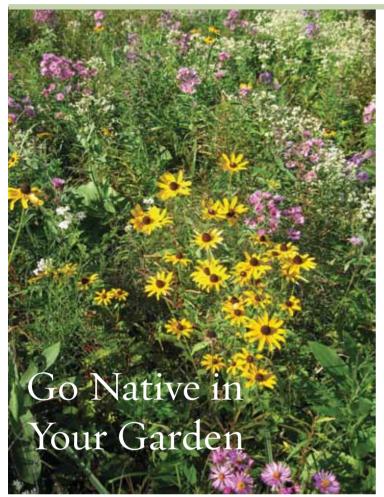
There are approximately 92 acres remaining in the Greater Pipes Cove area protection plan. When completed, a greenway will stretch from Long Island Sound to the Peconic Estuary.

Plum Island's Future (continue from page 3)

More than 90% of the island is undisturbed wildlife habitat and is considered a high preservation priority by The Nature Conservancy, and an "Important Bird Area" by Audubon. At 843 acres, with seven miles of natural shoreline, it's the largest haul-out site for wintering seals in the northeast, as well as habitat for federally threatened birds: piping plover and roseate terns. Plum Island is also home to osprey and bank swallows (a bird species in decline in New York).

In response to the proposed sale of the island, civic and conservation organizations including The Nature Conservancy have formed the "Preserve Plum Island Coalition." The coalition encourages a majority of the island be protected as a National Wildlife Refuge, administered by the U.S. Fish and Wildlife Service.





Providing displays of beautiful color, native plant gardens are also beneficial to wildlife such as birds, butterflies and bees. In addition, native plants require less water, and minimal fertilizer and pesticides in order to thrive. © Kara Jackson/TNC

magine you are in a suburban backyard with a mowed Lawn and typical landscape plantings.

This suburban landscape, although attractive, is full of invasive plants and supports little native wildlife except raccoons, opossums and squirrels. Birds find few insects to eat or feed to their babies. Butterflies can find no sustaining plants on which to lay their eggs.

What can you do to help make your yard more friendly to wildlife?

"Shrink your lawn and plant more native trees, shrubs and flowers," says Senior Conservation Scientist Marilyn Jordan. "You don't need to remove all of your non-native landscape plants, but wherever possible. plant a native – such as red maple, sumac, bayberry, summersweet, elderberry, Virginia creeper, white-top aster, and goldenrods."

You might have a few more insects on your plants, but birds and small animals will eat most of them (that is the point, remember?) Insects that devastate our gardens are typically introduced non-natives like the Japanese beetle and gypsy moth.

Now imagine you are in a garden in springtime, enjoying the pink and white blossoms of American dogwood, shadbush, and beach plum. Blue flag iris stand tall in a nearby pond. Birds sing in the trees, and take insects to the open mouths of their hungry babies. Now it is summer and colors shift to purple coneflower, brilliant red bee balm, and bright orange butterfly milkweed. Cool days of fall arrive, brightened by the red leaves of blueberry, red maple and Virginia creeper. The white of winter snow is accented by the red berries of American holly and winterberry, a welcome food for resident birds. Most of the plants in this garden are native to New York, or at least to the eastern United States, and provide sustenance for a rich variety of wildlife.

To learn more about sustaining wildlife in your garden, check out "Bringing Nature Home" by Douglas Tallamy (published by Timber Press). Tallamy includes recommendations for different kinds of plants native to the mid-Atlantic, southeast and Pacific Northwest. He may also open your eyes to the beauty and wonder of native insects, and the joy of gardening to nurture nature.



Did you know? A native and non-invasive garden plant list can be downloaded at http://ccesuffolk.org/nursery-and-landscape-current-projects/



Suffolk and Nassau counties passed a "do-not-sell list," stopping the sale of 63 invasive plant species. The law prohibits the sale, introduction and propagation of invasive species banned in Suffolk County or Nassau County. For more information on the law and its enforcement, and how you can collaborate in the enforcement of this law, please visit the Department of Consumer Affairs website:

http://suffolkcountyny.gov/Home/departments/CountyExec/consumeraffairs/Invasive%20Plant.aspx

What Will Happen to Long Island Beaches? Coastal Planning in a Changing World



Natural shorelines like marshes are vitally important coastal habitats. They filter pollution and help absorb the impact of storms. The Nature Conservancy is working to protect shoreline habitat and adjacent uplands that will convert to marshes as sea levels rise. © Kara Jackson/TNC

Picture your favorite Long Island beach. Is it a place where you fish? Swim? Or stroll? How often do you visit? Who goes there with you? How would you feel if it were no longer there?

Long Island boasts some of the finest beaches in the world. They attract locals and tourists who take advantage of the many recreational opportunities they offer. But the coast is changing and in some cases, the beaches we cherish are threatened. Sea levels could rise up to four feet or more by the end of this century — and some coastal towns are already experiencing the impacts.

Before we began building structures such as bulkheads and groins along the shore, the coast could adapt naturally to changes caused by tides, wind, erosion, storm flooding and sea level rise. Now in some areas, our coastline is so developed, it has lost its ability to adapt to these natural changes.

What does this mean for the places you love and the activities you enjoy?

As sea level rises, so does the ground-water table above it — and that could have serious implications for water quality. On Long Island, drinking water in our aquifers could easily be compromised by gradual salt water intrusion and the mixing of drinking water with contaminated water from nearby septic systems and storm drains.

Bathing waters and shellfishing grounds are also at risk of contamination. As sea level rises, more residential septic systems in coastal communities can flood and foul adjacent coastal waters.

The Power of Planning Ahead

Despite the impending risks, communities and local decision-makers have little access to the information they need to adequately respond to these changes. The Nature Conser-

vancy's newly expanded Coastal Resilience tool sheds light on how our coasts, infrastructure and natural resources can be more resilient in the face of sea level rise.

The Coastal Resilience Tool allows decision-makers in coastal Long Island (and now Connecticut) to explore different sea level rise and storm surge scenarios; analyze the potential impacts on communities and critical infrastructure like roads and schools; and develop solutions to address these realities.

The Nature Conservancy is working with Southold to participate in their comprehensive plan for 2020, using information provided by the coastal resilience tool. The tool can help wisely locate development and infrastructure and protect critical natural resources like drinking water supplies, marine water quality and tidal wetlands. Southold is a peninsula surrounded by the sea on three sides; sea level rise and coastal flooding information must be thoroughly considered and integrated into the thinking and actions of the town government.

"Decision-makers need clear and credible information in order to factor sea level rise and future flooding potential into their plans and their actions," says Dr. Nicole Maher, wetlands specialist. "This visualization tool helps determine which areas can accommodate responsible future development and which lands should be protected in their natural state. The mapping tool may also show areas most susceptible to sea level rise and storm surge where relocation or removal of existing development might be considered in order to avoid potential damage, injury and even loss of life. Protecting tidal wetlands and the essential role they play in healthy coastlines by giving them room to adapt to sea level rise is a high priority of The Nature Conservancy on Long Island."