



Restoring Our Magnificent Hudson

The Hudson River has always been essential to the lives of people who live along its banks – for drinking water, food, travel, commerce, manufacturing and recreation – and is known as “America’s River” for the crucial role it has played in shaping the history and culture of our nation.

Cumulative effects of dredging, shoreline hardening, pollution and development have caused negative impacts to the river’s natural habitats – including floodplains, tidal wetlands and shallow water areas – contributing to the decline of the abundant fisheries once present. These same natural habitats provide important buffers during flooding and storms and contribute to the ability of

our waterfront communities to limit damages caused by storm events.

Hudson River water quality has improved significantly over the last few decades, but lingering sources of pollution still need to be addressed. Aging and failing stormwater and sewage systems loom as an important but expensive issue for many riverfront communities. Rising sea levels and extreme weather events including frequent and severe storms

are likely to amplify challenges to communities working to manage and protect their waterfront infrastructure and natural assets.

The Hudson River is critical to providing the drinking water supply for numerous river communities and maintaining the quality of life and economic sustainability of the region. Recognizing that active protection of the Hudson River is vital

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Director's Message

Freshwater is a fundamental resource. However, unprecedented pressures are putting this resource at risk for both people and nature. This strain is being felt by our lakes, rivers and other natural systems. That's why we are working to safeguard these vital systems, bolstering their ability to support wildlife and provide for communities.

In this issue, you can read about our efforts in the Hudson River and the Delaware River Basin. First, over the past 18 months, The Nature Conservancy has successfully established a dynamic new partnership, *Partners Restoring the Hudson*, to create a comprehensive, federally recognized Hudson River Restoration Plan. The plan will allow Hudson Valley stakeholders to address current and emerging issues in a manner that results in more resilient human communities and natural systems.

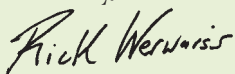
In addition, Eastern New York is one of four of Conservancy chapters collaborating across state boundaries to make a meaningful impact on the Delaware River Basin. We are working to reduce flood risk by restoring floodplains along the Neversink River, one of the major tributaries of the Delaware and to restore migratory fish to more sustainable levels than present levels.

Inside these pages, you can also meet some of our dedicated staff and volunteers. We showcase two members of our philanthropy team – Kathleen Hickey and Jon Kornfeld – and welcome our newest board member John Boulé. Each of them possesses an appreciation for the natural world and a deep understanding of the role nature plays in our lives.

Then of course there is you – our donors. We count each of you among the most important partners in our work. Every gift you give makes a difference in our ability to protect the health of our lands and water.

Thank you for all you do.

Sincerely,



Rick Werwaiss



Rick Werwaiss, Executive Director
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Joining Our Board

The Eastern New York Chapter welcomes John Boulé to its Board of Trustees. Mr. Boulé is a Vice President at Parsons Brinckerhoff. As part of the firm's Northeast Region Leadership Team, he is the senior manager for major work programs in the greater New York City area, including the Northeast Region's Superstorm Sandy recovery and mitigation efforts. Prior to joining the firm, Mr. Boulé had a long and distinguished career in the U.S. military where he achieved the rank of colonel and rose to the position of commander of the New York District of the U.S. Army Corps of Engineers. Mr. Boulé is "thrilled to be part of The Nature Conservancy, and to serve on the board that has responsibility for the watershed of one of our nation's greatest rivers, the Hudson, is clearly a special treat."



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to all whom benefit from it, The Nature Conservancy has established a dynamic and diverse new partnership, *Partners Restoring the Hudson*. Working with the U.S. Army Corps of Engineers, New York State, local communities and not-for-profit organizations, the partners are working to create a comprehensive, federally-recognized Hudson River Restoration Plan.



A single, comprehensive plan will result in a set of priorities to guide future action in the Hudson River in order to create a healthier, safer and more productive environment.

“The partnership draws upon the experience, knowledge and on-the-ground capacity of the scientific community and advocacy organizations who share our goals,” says Andy Peck, Freshwater Project Manager. “We have a unique opportunity to implement a region-wide restoration effort that aims to improve the function and health of our natural systems, enhance regional economic potential and reduce risk to our communities.”

A Crucial Step

A crucial step in this process is determining the extent and severity of habitat alteration and pollution that has occurred and continues to affect the vitality and resiliency of the Hudson River ecosystem.

Preparatory work for determining what areas along the Hudson require restoration is in progress with highly regarded researchers from The Nature Conservancy and partner organizations. Existing environmental data from federal, state, academic and scientific

sources will be compiled and synthesized for new uses related to developing the Hudson River Restoration Plan.

By pulling together existing data sets that have already been collected for the Hudson River, decision makers gain a better understanding of the river’s important habitat patterns and the way the system is used by fish and wildlife, as well as people. Early in 2014, the partnership will begin identifying restoration and resiliency strategies within the priority areas.

“With this effort, we have the potential to reverse devastating ecological losses, improve habitat, restore fisheries and create resiliency in community infrastructure,” says Rick Werwaiss, Executive Director. “The big picture is that the Hudson River Restoration Plan – with the Army Corps, New York State and our partners – will set the restoration and resilience agenda for the Hudson, as well as others who wish to model and replicate our processes, for decades to come.”



Cover: Bear Mountain Bridge from Bald Mountain ©Steve Stanne/NYSDEC
Clockwise from top left: Pulling traps ©NYSDEC Hudson River Estuary Program; Hudson River Day ©NYSDEC Hudson River Estuary Program; Bear Mountain State Park ©Carl Heilman II

Striking a Balance: Biodiversity and Energy Development in New York



New York State's clean energy goal is to obtain 30 percent of its electricity from renewable sources by 2015. While renewable sources of energy are essential to reduce greenhouse gas emissions, new wind energy generation projects, like other development activities, have the potential to affect New York's wildlife and biodiversity in a variety of ways. These impacts can be avoided with a proactive approach that includes biodiversity values in siting decisions.

With support from the New York State Energy Research Development Authority, The Nature Conservancy and partners are working on a project to protect New York State's biodiversity heritage while still advancing statewide energy

development and policy goals. Using geographic information system (GIS) technology, the project will identify and map important ecological resources, such as sensitive habitats, large forest blocks, and migration routes.

"Mapping areas with rich biodiversity and regions of great wind potential will give state and municipal decision makers as well as others a powerful tool to facilitate both the protection of the state's plant and animal populations and

the development of highly productive wind generation sources," says Cara Lee, energy team lead for The Nature Conservancy New York. "Wind energy developers will gain an understanding of which areas pose the highest and lowest levels of development concern, reducing costs and accelerating project development."

The project marks the first aggregation of such data in New York and the wildlife and habitat data being collected may also inform other energy and transmission development projects in the state, such as natural gas exploration and production and siting of transmission and gas pipe lines.

In the initial project phase, scientists developed a separate set of GIS map layers to identify advantageous sites for wind energy development. Through a collaborative stakeholder process, the maps were combined with the biodiversity maps to identify locations where wind power can be harnessed effectively with minimal impact to the state's plants and animals.

"By providing sound science, decision makers can better balance environmental concerns with energy infrastructure siting," adds Lee. "The synthesized maps are important tools that highlight optimal locations to explore for wind development which can be expected to present the lowest risk to biodiversity."

Scarlet Tanager
©Larry Master



Johnson Gift Boosts Delaware Basin Conservation Efforts

“Water has to be first on the importance list, because it affects everything,” says philanthropist Betty Wold Johnson. A great champion of river health and The Nature Conservancy, Mrs. Johnson has truly prioritized water by making a \$3 million donation through the Robert Wood Johnson 1962 Charitable Trust for The Conservancy’s efforts in the Delaware River Basin, which provides clean drinking water for more than 17 million people every day.

Mrs. Johnson became interested in river health when the Johnson family began initiatives to improve the condition of the Raritan River, which regularly flooded across from Johnson & Johnson’s factory in central New Jersey. “Robert Wood Johnson and his brother John Seward Johnson began quietly buying floodplains in the area and preserving them as passive parks,” she says. “It provided open space for local residents, but most importantly absorbed water and protected communities during the river’s natural flood cycles. And I thought – that idea really makes sense.”

“Water is a critical resource, especially as our population grows,” adds Mrs. Johnson, “and we need to be sensitive

about planning and developing riverfronts.” She’s put her trust in The Nature Conservancy to lead efforts to safeguard the Delaware. “I like every one of The Conservancy’s principles. I like your follow-through and commitment to results. For our fragile planet, we have to do a better job. I think The Nature Conservancy will be the resource others go to for honest answers to honest – and tough – questions about rivers and floodplains.”

Mrs. Johnson’s gift will fund the Conservancy’s work to study and address the Delaware River Basin from headwaters to bay. Our initiatives will include work to restore riverbanks and help control flooding in communities, to continue to ensure clean drinking water, to connect waterways for fish and wildlife and to combat urban stormwater pollutant runoff.

“We are thankful and honored to have the support of Betty Wold Johnson,” says Rick Werwaiss, Executive Director. “We are one of four Conservancy chapters working across state boundaries



Leaders in Environmental Action for the Future (LEAF) interns measure tree conditions at Spring Brook, a tributary to the Neversink River. ©Mari-Beth DeLucia/TNC

to make a meaningful impact on the Delaware River Basin. We play a leadership role in the floodplain restoration and fish population restoration strategies. Scientists are working to restore floodplains along the Neversink River, one of the Delaware’s major tributaries and to achieve our migratory fish goals and restore population to levels that are at least more sustainable than current levels. These are two very key elements in fulfilling the Delaware River’s ecological, economic and cultural potential.”

A portion of the gift will also be dedicated to work in the Mississippi River Basin, where Mrs. Johnson spent part of her childhood.

ON THE WEB »

See a slideshow of our work to restore a floodplain forest along the Neversink River at [nature.org/neversink](https://www.nature.org/neversink)

From the Ground Up

On an early July morning, a large red balloon floats 500 feet above a marsh near Tivoli Bay on the Hudson River Estuary. With the glee of a child, conservation information manager Simcha Levental handles the balloon like a kite. The wind can be a factor, but by pulling on the string holding the 4-foot helium balloon, Levental moves the balloon in the desired direction.

All eyes look up as the balloon moves across the sky.

Balloon mapping allows users to capture on-the-ground images that are normally made from satellites and airplanes. This inexpensive technique requires only string, a helium balloon and digital cameras.

Levental and conservation ecologist Chris Zimmerman are exploring how they can use balloon mapping as a

monitoring tool that will enable scientists to gather information about vegetation patches in tidal wetlands.

To capture the images, Levental modified a point and shoot digital camera to only utilize the infrared portion of the light spectrum and paired it with a high resolution digital camera to create the sensor unit. Both cameras were mounted on a small weather-style balloon and used in a low-altitude flyover of a marsh near Tivoli.

The goal of the balloon mapping is to gather information about vegetation patches more efficiently than other on-the-ground methods and with more detail and precision than traditional remote sensing data. The images from the infrared and high resolution sensors are analyzed using GIS and the unique reflective signatures of different vegetation types.

Collecting images is a first step in creating maps. The next step involves aligning the aerial image with a map of the same area for examination. This allows for the analysis of patterns of existing Phragmites (common reed) stands that have been treated or have yet to be treated. Phragmites, a perennial grass, can grow up to 15-foot tall and pose one of the largest threats to tidal marsh habitat.

“Balloon mapping may be a great technology to detect Phragmites stands when they are small and more effectively treated. Surveying for small stands of Phragmites in the large tidal marshes along the Hudson River has been complicated and time consuming,” says Zimmerman. “While we are still in the process of analyzing the field data, we are very excited by the potential of this technology. It is a low cost and easy-to-use method that can also have other conservation applications.”



Simcha Levental and intern Jeremy Roberts ready a helium balloon for a balloon-mapping flight. ©Chris Zimmerman/TNC

MEET OUR TEAM »

Director of Philanthropy **Kathleen Hickey** recently joined the Eastern New York chapter of The Nature Conservancy to engage donors in supporting local, regional and global conservation initiatives. In

addition to her most recent post as Chief Public Affairs Officer at Clarkson University's Beacon Institute for Rivers and Estuaries, she has held senior and consultant roles at The Julliard School, the U.S. Military Academy at West Point and Columbia University Medical Center. She currently serves on the board of the Dutchess County Economic Development Corporation.



Kathleen is especially passionate about the Conservancy's work on the Hudson River, having spent her childhood summers on the river at her family's Adirondack camp near Hadley, NY.

Based in the New Paltz office, Kathleen says she is "inspired daily by the beauty of the Shawangunk Ridge." A trained musician and avid dancer, she can be found swing, waltz and contra dancing throughout the Hudson Valley and Capital District.

Senior Donor Relations Manager **Jon Kornfeld** is passionate about the local to global connection of the Conservancy's work.

"I love that our local work can have global impacts and that small-scale projects can be applicable to our global work. For example, our Hudson restoration and adaption work has applicability to work we are doing on rivers elsewhere. I find it amazing that the small tree planting activity on a tributary of the Neversink River may be replicated as an effective means of floodplain restoration in other locations."



Prior to joining the Conservancy, Jon was the executive director of the Washington Inner-City Lacrosse Foundation. A life-long lacrosse enthusiast, Jon currently volunteers as a coach/mentor with CityLax, a New York

City based organization and Doc's Lacrosse, a youth-based lacrosse organization.

Speaking Up for Eels

An advocate for fisheries along the Atlantic seaboard, Senior Fisheries Ecologist Mari-Beth DeLucia, is deeply engaged in American eel conservation and policy work on a national and international scale. In 2012, the Atlantic States Marine Fisheries Commission (ASMFC) stock assessment for American eels determined that the American eel population is at or near historic lows.

In response, the ASMFC eel board drafted a new addendum to its fishery management plan for the eel to reduce mortality on all life stages. Mari-Beth was nominated to the ASMFC eel board's Advisory Panel, and then appointed to vice chair of the group that advises the eel board on various aspects of the eel fishery.

In July, Mari-Beth attended a meeting of the Zoological Society of London as a member of the Anguillid Specialist Sub-Group which is part of the International Union for the Conservation



Senior Fisheries Ecologist Mari-Beth (pictured front row, second from left) at the London Zoological Society. © Kazuo Uchida ©TNC

of Nature (IUCN). The purpose of the meeting was to assess the Red List status of the American eel as well as 14 other eel species. The IUCN Red List is widely recognized as the most comprehensive, objective global approach for evaluating the conservation status of plant and animal species. The Red List is about assessing the risk of extinction in the near future of a species and is used by others to make management and conservation decisions globally and locally.

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Protected and Endowed: A Secure Future for Sam's Point Preserve

New York State Office of Parks, Recreation, and Historic Preservation (NYS OPRHP) recently acquired 1,080 acres at Sam's Point Preserve, adjacent to Minnewaska State Park Preserve, completing the State's purchase of the preserve which was initiated with a purchase of approximately 4,000 acres in 2006.

At the highest point along the Shawangunk Ridge, Sam's Point Preserve is well known for its spectacular scenic views and striking cliffscapes, and is home to an extensive, globally rare mountain dwarf pitch pine barrens, as well as nearly 40 rare plant and animal species.

The Nature Conservancy has managed Sam's Point Preserve to protect ecological values while encouraging sensitive recreational use since its acquisition by The Open Space Institute from the Village of Ellenville in 1997, and will continue to do so through June 2015, when management will be assumed by NYS OPRHP. The property was purchased by New York State for \$2.4 million through the Environmental Protection Fund. As part of the transfer agreement, the Open Space Institute and The Nature Conservancy have created a

\$3 million endowment through contributions that will be used for the future management of Sam's Point Preserve and Minnewaska State Park.

"We are proud of our conservation 'imprint' at Sam's Point Preserve and grateful to our partners for their dedication to the protection of this extraordinary Shawangunk landscape," says Cara Lee, Director of the Conservancy's Shawangunk Ridge Program. "This acquisition adds a new chapter to the conservation history of this remarkable resource for New York State residents and visitors."

