Presented to the Hudson River Estuary Management Advisory Committee
in accordance with the provisions of the Hudson River Estuary Management Act, NYS Environmental Conservation Law Section 11-0306

NEW YORK STATE | Department of Environmental Conservation

2022 ANNUAL HUDSON RIVER ESTUARY PROGRAM COORDINATOR'S REPORT

Kathy Hochul, Governor | Basil Seggos, Commissioner

Wendy Blanchard

MESSAGE FROM DEC'S COMMISSIONER

Commissioner Seggos visits students at Corning Park Preserve during "A Day in the Life of the Hudson & Harbor."

NYSDEC

Dear friends and colleagues,

I am pleased to present the 2022 annual report for the Hudson River Estuary Program. This year's report showcases the actions the Department of Environmental Conservation's (DEC) Estuary Program is taking to help protect, restore, and improve the ecological health and vitality of the Hudson River Estuary.

In 2022, the Estuary Program worked closely with local communities, government agencies, and other stakeholders on several important initiatives to improve the estuary's water quality, restore critical habitats like wetlands and shorelines, and develop new public access points along the river to connect more New Yorkers to this incredible resource.

With more than $3 million from New York's Environmental Protection Fund, the program awarded 23 estuary grants, supported 10 research projects, and provided technical assistance to 57 municipalities and three counties throughout the Hudson River Valley. The program also worked to raise awareness about the importance of the Hudson River Estuary through robust education and outreach and numerous events and workshops to engage local communities and provide tools they need to become stronger stewards of the estuary.

The water quality of the Hudson, health of its tributaries, protection of the aquatic habitat vital to the survival of migratory fish, conservation of natural areas within the watershed, and an engaged public are all critical to the Hudson's intricate web of life and ecosystem management. DEC funding also provides communities with resources needed to implement locally identified and prioritized projects that increase resilience, adapt to climate change and improve the environment all while delivering economic benefits. Our local, state, and federal government partners, academic, civic and environmental groups, and residents are all part of this effective team.

I am incredibly proud of the work that the Hudson River Estuary Program has accomplished over the past year, and grateful to our dedicated staff, our partners and the communities we serve for their continued support and collaboration. DEC looks forward to continuing the work to implement a shared, targeted, and inclusive vision for the future of this historic national treasure.

Sincerely,

Basil Seggos, Commissioner
June 2023

OUR MISSION

The Estuary Program's staff and partners work to achieve the following benefits for the public:

- A Vital Estuary Ecosystem
  - Sustainable Estuarine Fisheries
  - Robust River Habitats
  - Clean Hudson River Water
- A Thriving and Resilient Watershed
  - Healthy Tributaries
  - Climate-Adaptive Communities
  - Conserved Natural Areas
- People Living Well with Nature
  - An Informed and Engaged Public
  - An Accessible Hudson River for People of All Ages and Abilities

DEC's Hudson River Estuary Program helps people enjoy, protect, and revitalize the Hudson River. The program provides funding and technical assistance, and conducts scientific research to empower citizens, communities, and agencies to make informed choices.

Estuary Program Advisory Committee

- Stuart Findlay, Cary Institute of Ecosystem Studies, Committee Chairman
- Corey Allen, Habitat for Humanity of Greater Newburgh
- Allan Beers, Rockland County Division of Environmental Resources
- Andy Bicking, Scenic Hudson
- Jim Bonesteel, Rensselaer Plateau Alliance
- Peter Brandt, U.S. Environmental Protection Agency
- Janet Burnet, Ramapo River Watershed Intermunicipal Council
- Diana Carter, NYS Office of Parks, Recreation and Historic Preservation
- Carla Castillo, Hudson Valley Regional Council
- Scott Croft, Hudson River Boat and Yacht Club Association
- Martin Daley, Capital District Regional Planning Commission
- David Decker, Constitution Marsh Audubon Center and Sanctuary
- Chris DeRoberts, New York Power Authority
- Noreen Doyle, Hudson River Park Trust
- Todd Erling, Hudson Valley Agri-Business Development Corporation
- Walter Garschagen, Sea Tow Central Hudson
- Joshua Hunn, NYS Department of State
- Oded Holzinger, Groundwork Hudson Valley
- Karen Imas, Waterfront Alliance
- Lucille Johnson, Vassar College and Environmental Consortium of Colleges and Universities
- Scott Keller, Hudson River Valley Greenway
- Jessica Kounen, NY Sea Grant
- Jon Kramer, Hudson River Foundation
- Suzette Lopane, Westchester County Department of Planning
- John Mylod, commercial fisherman
- Peter Park, SUNY Farmingdale
- Rob Pirani, NY-NJ Harbor and Estuary Program
- George Schuler, The Nature Conservancy
- Dan Shapley, Riverkeeper
- Ed Skorupski, recreational angler, outdoor writer
- Richard Slingerland, Historic Hudson River Towns
- Steve Stanne, Hudson River Sloop Clearwater
- Emily Svenson, Hudson 7
- Shino Tanikawa, NYC Soil and Water Conservation District
- Audrey Van Genechten, NYS Department of Health
- Peter Weppler, U.S. Army Corps of Engineers

Scott Snell

LOCAL FUNDED PROJECTS 2022

In 2022, DEC's Hudson River Estuary Program awarded 23 Estuary grants, supported 10 research projects, and provided technical assistance to 57 municipalities and 3 counties throughout the Hudson River Valley. More than $3 million in New York State Environmental Protection Funds supported these projects, which included tree plantings, climate-adaptation plans, water quality monitoring, fish habitat restoration, river access improvements, and education programs.

2022 BY THE NUMBERS

- **23 ESTUARY GRANTS** totaling **$1,423,474 WERE AWARDED**, with **87% GOING TO ENVIRONMENTAL JUSTICE COMMUNITIES.**

- **3,740 LOCAL DECISION-MAKERS** in **57 MUNICIPALITIES AND 3 COUNTIES** received training on best management practices for **CLIMATE-ADAPTATION, WATERSHED PROTECTION, CONSERVATION AND LAND USE, AND RIVER HABITAT CONSERVATION.**

- **1,768 PEOPLE VOLUNTEERED** to **HELP AMPHIBIANS** cross roads, **COUNT EELS, PLANT TREES**, and record fishing **DATA FOR STRIPED BASS.**

- 2022 marked the **44TH YEAR OF TRACKING** and monitoring the dynamics of **MIGRATORY FISH** populations in the Hudson River Estuary.

- **937 VOLUNTEERS** counted and released **313,879 EELS.**

- Submerged Aquatic Vegetation (SAV) monitoring **VOLUNTEERS DOCUMENTED SAV** cover with **279 OBSERVATIONS AT 15 SITES.** Throughout the estuary, the percentage of **PLACES WHERE SAV WAS POSITIVELY IDENTIFIED WAS 23%.**

- Trees for Tribs staff and more than **456 VOLUNTEERS PLANTED** more than **3,844 NATIVE TREES** and shrubs, **RESTORING 7 ACRES ON 1.1 MILES OF STREAM.**

- **17 COMMUNITIES** have plans underway or completed to **PROTECT THE WATERSHEDS** of their **DRINKING WATER** supplies and **7 WATERSHED GROUPS** worked with us to achieve **REGIONAL STREAM CONSERVATION GOALS.**

- **56% OF COMMUNITIES** in the Hudson Valley have taken the **CLIMATE SMART COMMUNITIES PLEDGE**, and **19% ARE CERTIFIED** Climate Smart.

- **10 NEW RESEARCH PROJECTS** will inform conservation actions for **FISHERIES MANAGEMENT, WATERSHED PROTECTION, AND CLIMATE JUSTICE.**

- **32,400 VISITS** were made to **HRECOS.ORG, THE HUDSON RIVER ENVIRONMENTAL CONDITIONS OBSERVING SYSTEM WEBSITE**, from universities, nonprofit organizations, boaters, and state and federal agencies interested in environmental monitoring data.

- **6 DEC ESTUARY GRANTS** totaling **$269,716 WERE AWARDED** to local governments and nonprofit organizations to **ENHANCE RIVER ACCESS** in their communities and **IMPROVE ACCESSIBILITY** for everyone, including people with disabilities.

- **65,700 PEOPLE SUBSCRIBE** to our e-newsletter ***HUDSON RIVERNET*** and nearly **18,500 SUBSCRIBE** to the ***HUDSON RIVER ALMANAC***.

Hudson Valley Drones

ESTUARINE FISH

DEC's Hudson River Fisheries staff have been managing the migratory and resident fishes of the estuary since the 1980s through numerous long-term monitoring surveys. Long-term data are extremely valuable for documenting population trends over time, as they can reveal patterns in abundance not evident from single-survey events or short-term studies. Migratory species are managed in collaboration with other coastal states through the Atlantic States Marine Fisheries Commission (ASMFC).

Do Breaching Sturgeon Indicate Population Abundance?

Atlantic sturgeon populations have declined by 99% from their historic numbers due to the combined effects of overharvesting, habitat loss, and human interactions. Recovery efforts have been ongoing for more than two decades. However, logistical, endangered status, and fiscal constraints make it difficult to estimate population size and evaluate the efficacy of conservation. Occasionally, some sturgeon can be observed breaching (leaping above the water) in the Hudson. What can breaching sturgeon tell us about population recovery?

During 2022, in collaboration with academics, federal scientists, and a local yacht club, we embarked on a novel project to monitor adult spawning Atlantic sturgeon for breaching in the Hudson River. There has been an increase in the number of reports of sturgeon surfacing near the spawning area. Could the number of breaching adults serve as an index of abundance? We are using a remote camera to film Atlantic sturgeon at a known spawning site in the Hudson River. We will correlate the number of surfacing sturgeon to a suite of environmental variables and estimates of local spawner abundance. Results will be used to determine if breaching behavior occurs more often during certain times of day or tides. The data will also provide outreach material to help minimize human-sturgeon interactions.

River Herring Coastwide Stock Assessment Underway

Hudson River Fisheries staff are participating in the 2023 ASMFC Coastwide Benchmark Stock Assessment for River Herring. Migratory river herring comprise two closely related and jointly managed species, alewife (*Alosa pseudoharengus*) and blueback herring (*Alosa aestivalis*), that range from Newfoundland to North Carolina and from Cape Breton, Nova Scotia, to the St. John's River in Florida.

The river herring stock assessment will evaluate the current stock status of both river herring species across their entire ranges, including the Hudson River, and will be used to inform future management actions. Several surveys conducted by Hudson River Fisheries will provide crucial data during this assessment.

A coast-wide stock assessment for river herring is currently underway.

In New York, river herring are an economically and culturally important species. Spawning populations in the Hudson River are commercially and recreationally used as bait for recreational fishing and for human consumption under New York's approved sustainable fisheries management plan. Participation by DEC staff during this stock assessment will ensure that New York's interests are protected and that the supplied river herring data are analyzed correctly. The assessment is ongoing, and results are anticipated in late 2023.

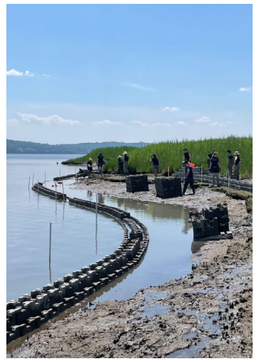
Rob Santini Photography

Breaching Atlantic sturgeon

RIVER HABITATS

Piermont Marsh Pilot Shoreline Stabilization Project

Piermont Marsh is one of four sites within the Hudson River National Estuarine Research Reserve (HRNERR) and is the largest brackish tidal marsh in the estuary, providing ecologically significant habitat that is uncommon in the region. However, the shoreline has significantly eroded over the past 75 years, resulting in an overall loss of marsh area and native low-marsh vegetation.



More than 8,000 oyster castles, each weighing 35 pounds, have been installed entirely by hand at low tide to construct the two intertidal sills. These castles installed here are not intended to support oyster settlement and growth, but sediment accretion.

Since July 2022, HRNERR, in partnership with the New York State Thruway Authority (NYSTA), the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), and the Hudson River Valley Greenway, have been working on a pilot project to stabilize the shoreline to help protect against marsh loss and bolster the resilience of the adjacent Village of Piermont.

Coir logs and two parallel oyster castle sills are being installed in the intertidal zone along the edge of the marsh. Coir logs are long, coconut-fiber tubes that are nearly two-feet in diameter. Oyster castles are made of specially formulated concrete and have a modular design that allows flexibility in configuration. Once completed, the sills and coir logs will reduce wave energy and promote the accretion of sediment.

Side Channel Restoration at Gay's Point

Historic dredge and fill activities for the construction of the federal navigation channel resulted in the loss of nearly 4,000 acres of shallow water habitat, including the near-complete elimination of side channels in the upper third of the Hudson River estuary.

In 2013, HRNERR began working with NYSTA to design and construct a new tidal side channel at Gay's Point in Stockport. The 1,200-foot-long by 100-foot-wide side channel was completed in 2017. More than 5,000 native plant seedlings and 600 woody cuttings were planted to restore a mosaic of shallow water, tidal wetland, and shoreline habitats. The channel design incorporated a variety of habitat enhancements, including alcoves, root wads (tree trunks with roots still attached), deep pools, and broad, flat intertidal marshes along the channel edge to increase structural and functional diversity and provide refuge and cover for fish and wildlife.

Monitoring marsh vegetation.

An intensive monitoring program was designed to document pre- and post-restoration conditions, to evaluate the success of this first-of-its-kind project on the tidal Hudson River. Preliminary results suggest that the flow of water through the channel is sufficient to maintain its depth and prevent the channel from filling in with sediment. The rapid establishment of tidal marsh vegetation and benthic invertebrate and fish communities, including river herring, also indicate the success of the project.

Dockside Sustainable Shorelines Demonstration Project

Dockside Park, in the Village of Cold Spring in Putnam County, is known for its exceptional views of the Hudson Highlands and access to the shores of the Hudson River. Owned by OPRHP, it is part of the Hudson Highlands State Park Preserve.

Installing shoreline stabilizers at Dockside Park in the Hudson Highlands.

DEC's Estuary Program funded a preliminary design study to develop conceptual plans to stabilize the eroding shoreline while also restoring or enhancing habitat to improve resiliency to large storms and sea-level rise. OPRHP and DEC provided funding for final design and construction. Construction began in December 2021 and was completed in October 2022. The shoreline treatment varies within the site to enhance visitor use and to mitigate exposure to waves and currents.

HEALTHY TRIBUTARIES

Water quality in the Hudson River estuary and the web of life it nourishes depend on the health of the many tributary streams and rivers that flow into its waters. Tributaries provide essential habitat for fish and wildlife and drinking water for millions of people.

Assessing Water Quality in Tributary Streams

DEC's Estuary Program is collecting water samples from four unassessed streams within the Hudson River estuary watershed—the Taghkanic Creek, Punch Brook, Quassaick Creek, and Tin Brook. Each stream was sampled four different times during the summer of 2022. Monitoring will continue within the same stream segments during the summer of 2023. Water chemistry (presence or level of nitrogen, phosphorous, and other chemicals) and data on macroinvertebrates are being collected.

Collecting a water sample.

The goal of this project is to provide confirmed assessments for each of these streams, and support engaged local partners working to protect and restore these waterbodies through local land-use planning, watershed management, and community outreach. Confirmed assessments are accurate indications of stream conditions, based on at least two consecutive years of water-quality monitoring data, and follow DEC standards to ensure the data collected can be used for reporting to the United States Environmental Protection Agency.

Improving Regional Road-Stream Crossings

DEC's Estuary Program and NEIWPCC provide funding to help municipalities prioritize improvements to places where roads cross streams to restore aquatic habitat and become more resilient to climate change. This year, two county-wide and intermunicipal projects were funded through the State's Environmental Protection Fund.

Ulster County was awarded $125,464 to develop an interactive map and prioritization web tool to support county and municipal decision-makers in addressing current and future inadequate road-stream crossings. The project also will assess road-stream crossings in five municipalities in the lower Esopus watershed and will complete conceptual designs for eight priority crossings within the City of Kingston and the towns of Hurley, Marbletown, Olive, and Ulster.

Trout Unlimited was awarded $129,776 to identify priority road-stream crossing replacement projects that reconnect high-quality aquatic habitat and improve community flood resiliency and road infrastructure conditions within the towns of Berlin, Grafton, and Brunswick. The project will include the development of conceptual and final designs for the highest priority aquatic barriers in each town.

Measuring the depth of water in a culvert.

In addition to these planning and engineering efforts, DEC's Estuary Program and partners assessed over 1,300 road-stream crossings throughout the watershed. Estuary Program staff also hosted or assisted in three North Atlantic Aquatic Connectivity Collaborative (NAACC) non-tidal field trainings (for passability of aquatic organisms) and one NAACC terrestrial field training (for wildlife) throughout the state. More than 40 people from watershed groups, environmental organizations, engineering firms, DEC, and NEIWPCC were trained this year in the NAACC protocols.

NAAC field training.

Protecting Drinking Water

A cooperative effort among five municipalities in Westchester County is underway to develop an intermunicipal, conservation overlay-zone to protect water quality in the Indian Brook-Croton Gorge watershed. The project stems from a recommendation in the 2008 Indian Brook-Croton Gorge Watershed Conservation Action Plan (PDF).

Darcy Salinger

The five municipalities seek to adopt unified environmental regulations that will protect drinking water in the Indian Brook Reservoir and Croton Gorge aquifer by minimizing the potential for contamination in the areas that feed these public water supply sources. DEC's Estuary Program is supporting this project through grant funding and technical assistance.

Planting Native Trees to Protect Streams

Hudson Estuary Trees for Tributaries (Tribs) offers free native trees and shrubs to qualifying projects in the Hudson River Valley. This year, Trees for Tribs planted more than 3,844 native trees and shrubs at 26 sites along 1.1 miles of stream with the help of more than 456 volunteers. Trees planted along streams help protect water quality, fish, and wildlife, and also reduce erosion and flooding. Tree-planting events also provide an opportunity for the public to learn more about native plants and how they can benefit streams and may help to reduce long-term maintenance costs.

Twelve of these plantings took place on public lands where municipal staff, land trusts, and local volunteer groups teamed up to help plant more than 2,200 plants. The Hudson Highlands Museum in Cornwall, the Riverbend Trails at Gardiner Park, Chaucey Park in Dobbs Ferry, Devries Park in Sleepy Hollow, and Tibbetts Brook Park in Yonkers were among the locations where large plantings took place.

CLIMATE-ADAPTIVE COMMUNITIES

DEC's Hudson River Estuary Program helps communities plan for future flooding and sea-level rise along the tidal Hudson River and its tributaries using natural, nature-based, and socially equitable solutions.

Helping Communities Envision Their Future

The Climate-Adaptive Design (CaD) Studio links graduate students in landscape architecture with high flood-risk Hudson riverfront communities to explore design alternatives for more climate resilient and connected waterfronts using natural and nature-based solutions. Community stakeholders are engaged during the course of the studio to help inform the design process and support more usable results for the municipality. The design program has taken place in Kingston, Hudson, Catskill, Piermont, Ossining, and Poughkeepsie.

Residents of Hudson review resilient designs.

In 2022, Tarrytown was selected through an open application process to host the CaD Studio. Along with the local effects of climate change, students in the program took into consideration Tarrytown's history, ecology, economy, and community needs in creating their designs.

Implementable design projects are underway in the City of Hudson and Town and Village of Ossining, through Design Advancement (Phase II) funding. Since 2014, nine resilient waterfront design concepts and four implementable design projects have been completed.

Building Adaptive Capacity Across Our Communities

Resilience is deepened when communities come together to tackle common environmental hazards. The Estuary Program and partner organizations Hudson River Watershed Alliance, Scenic Hudson, NY Sea Grant, and the Consensus Building Institute regularly convene the Flood Resilience Network, a group of local municipal leaders from 21 riverfront communities to discuss current and future flood risk. In 2022, the network met in person for the first time since the start of the pandemic. The City of Hudson hosted the meeting and provided a tour of the waterfront resilience projects under consideration.

The Estuary Program also provides funding for the Climate Resilience Partnership of Cornell Cooperative Extensions (CCEs). Across six counties, the CCEs partner with local municipalities to complete Climate Smart Communities resilience actions and certification. In 2022, CCEs helped 17 communities complete 18 resilience actions and assisted 8 communities to become Climate Smart Certified. Resilience actions include culvert management plans, flood guides, incorporating resilience into comprehensive planning, and more.

Unfortunately, flooding isn't the only climate risk in the Hudson Valley. Extreme heat and short-term drought are becoming increasingly prevalent. The Estuary Program participated in the 22-state-agency Extreme Heat Action Plan Working Group to develop actions for immediate implementation to help prepare communities for a heat emergency and address acute heat-related impacts and needs.

Members of the Flood Resilience Network meet in Kingston.

AN INFORMED AND ENGAGED PUBLIC

DEC's Estuary Program, in partnership with HRNERR, provides a wide range of education field programs, community science opportunities, interactive exhibits, and curricula to introduce people of all ages to the Hudson River estuary and its watershed.

A Day in the Life of the Hudson and Harbor

The waterfronts of the Hudson River and the piers of New York Harbor bustled with activity as thousands of students armed with seine nets, minnow pots, and water testing gear collected data and studied the Hudson River during DEC's twentieth annual A Day in the Life of the Hudson and Harbor. First graders through college students participating in "Day in the Life" partner with DEC staff and environmental education centers to collect scientific data using hands-on field techniques, capturing a snapshot of the river's ecology. The program also gives students the opportunity to don waders or use a fishing rod to catch and identify some of the Hudson's 220-plus species of fish and myriad invertebrates. In 2022, nearly 4,500 students and educators participated at 80 sites from the New York Harbor to Waterford.

Students check river turbidity.

Fostering the Next Generation of Environmental Scientists

The Institute Discovering Environmental Scientists (TIDES) is a paid, summer field-research and laboratory science experience that takes place at the Norrie Point Environmental Center in Staatsburg. Transportation is provided to help students from traditionally underserved areas participate in the program.

During TIDES, high school and college students from communities across the Hudson Valley conduct environmental research projects along the banks of the Hudson River and in freshwater tidal wetlands, examining the water quality, plant life, and fish biological diversity of the estuary. This was the fourth year of the program, and many previous participants returned as mentors to guide new students through their projects. Guest scientists led research seminars for the students throughout the program, introducing them to a wider world of environmental science monitoring and communication. The students worked together to formulate scientific questions, gather field data, conduct scientific analysis, and present their final research. TIDES is a program of DEC's Hudson River Estuary Program, HRNERR, and the Cary Institute of Ecosystem Studies.

Eels Along the Hudson

Releasing eels in Black Creek.

From late March to early May, teachers, students, and partner environmental organizations participate in DEC's Hudson River Eel Project to monitor migrating juvenile American eels (*Anguilla rostrata*). American eels hatch in the Sargasso Sea north of Puerto Rico, and every spring they arrive in estuaries like the Hudson River as translucent, two-inch-long "glass eels." In 2022, the fifteenth year of the eel community science project, 937 volunteers helped catch, count, and release of 313,879 eels at 12 streams that flow into the tidal Hudson from Staten Island to Troy, contributing data for multistate management plans for eel conservation.

CONSERVED NATURAL AREAS

The Hudson River estuary watershed has remarkable biological diversity. The Conservation and Land Use team of DEC's Estuary Program works to protect this biodiversity by helping communities develop plans and policies based on current scientific information and conservation principles. Our success relies on the dedication and hard work of municipal and conservation partners from across the Hudson River Valley.

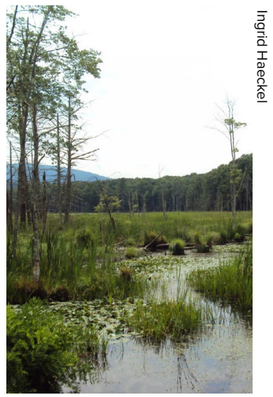
Inventorying Natural Resources

Natural resource inventories (NRIs) compile maps and descriptions of natural areas and provide a reference for planning in a community. By knowing where resources like forests, wildlife habitat, and aquifers are located, a municipality can identify conservation priorities and create land-use plans and policies to protect what the community cares about.

Explaining NRI maps during a public meeting in Mt. Pleasant.

With technical assistance from the Estuary Program and partner Cornell Cooperative Extension of Dutchess County, the Town and Village of Rhinebeck and Town of Hyde Park completed NRIs this year.

Since 2015, we've helped 34 municipalities to complete NRIs and nearly 40% have used their inventories to create local plans and policies.



Ingrid Haeckel

Fresh water wetlands are vital natural resources.

Designating Critical Environmental Areas

Municipalities can designate critical environmental areas (CEAs) to bring attention to unique and exceptional natural areas during environmental reviews. With assistance from the Estuary Program and our partner Hudsonia Ltd., three municipalities used their NRIs to inform CEA designations this year:

- The Town of New Lebanon in Columbia County designated two new CEAs that include the contribution area for a warm spring and cool-temperature ravine habitats found along tributaries of the Wyomanock and Kinderhook creeks.
- The Town of New Paltz in Ulster County designated the Shawangunk Ridge CEA, which includes globally significant habitats and connected forests, unique geology, and drinking water resources.
- The Town of Woodstock in Ulster County designated the Zena Woods CEA, a regionally significant intact forest and wetland area flanking the Sawkill stream corridor.

Craig Westcott

Municipal volunteers and Darrow School students visiting a cool-temperature ravine in New Lebanon.

These CEAs help us reach our target of 50 new or updated conservation practices, plans, and policies by 2030.

Laura Heady

Shawangunk Ridge

Financing Future Conservation

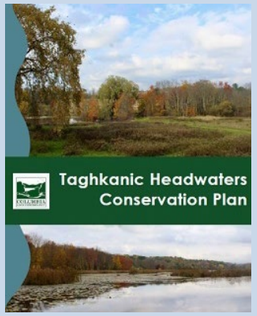
Community preservation plans were adopted by the towns of Gardiner and Marbletown in Ulster County, and wide majorities of voters in both towns approved the creation of community preservation funds through ballot measures in the 2022 election. These initiatives contribute to our 2030 target to see five watershed municipalities establish local land acquisition programs to advance their conservation priorities.

Keeping Habitats Connected

Maintaining connectivity of natural areas enables wildlife to move safely between habitats, keeps streams flowing freely, and allows for shifts in the ranges of plants, animals, and natural communities in response to environmental and climate change. People also benefit from clean water, cooler temperatures, flood control, and recreational and scenic values.

Laura Heady

Gardiner's preservation plan will help protect scenic and natural resources



This year, the Taghkanic Headwaters Conservation Plan was completed under the leadership of Columbia Land Conservancy. The plan's vision includes stewardship of the Taghkanic Creek headwaters watershed in Columbia County to protect clean water and habitat connectivity. The project was funded by an Estuary Grant and helps us reach our target of 10 new planning projects that support landscape-scale conservation by 2030.

The Hudson Highlands are a significant biodiversity area with excellent examples of large, unfragmented forest.

Laura Heady

AN ACCESSIBLE HUDSON RIVER

The Hudson River estuary and its shores offer exceptional opportunities for outdoor recreation. Today, nearly every community along the tidal Hudson has some form of public access to the river. DEC's Estuary Program annually offers River Access grants—competitive funding opportunities to tidal Hudson River communities for upgrades to docks, boat launches, fishing piers, swimming beaches, and facilities to accommodate people with a wide-range of abilities and to improve resiliency to flooding. These grants are funded by New York State's Environmental Protection Fund.

In 2022, DEC's Estuary Program awarded $156,389 for three River Access grants, all of which will serve disadvantaged and underserved communities. This funding supports creating community action plans for potential Hudson access sites on the north shore of Staten Island and the Bronx; purchasing adaptive equipment for paddlers of all abilities, including people who are blind or visually impaired, to enhance the programs of New York Outrigger, Inc.; and improving the safety and resiliency of floating docks used by padding and rowing groups within the Hudson River Park.

New York Outrigger

Paddling on the Hudson In New York City

Downtown Boathouse is an all-volunteer organization that provides free kayaking on the Hudson for people of all ages and abilities in lower Manhattan and Governors Island, serving nearly 30,000 people each year. The kayak programs increase recreational opportunities for New York City residents and visitors and provide a connection to and better understanding of the tidal Hudson. River Access grants over the past several years have funded docks on Pier 26 and Governor's Island and enabled Downtown Boathouse to purchase life jackets, boats, and paddling equipment, expanding the capacity of their free kayaking programs. Grant funding also enabled the organization to purchase two adaptive boats equipped with outriggers, for people of all abilities. Downtown Boathouse also offers training for volunteers and community outreach programs for youth groups and children with special needs. In 2022, Downtown Boathouse reached a milestone of half-a-million kayakers who took advantage of the free paddling.

Getting ready to launch an adaptive kayak at Downtown Boathouse.

Improving Access for People with Disabilities

Kingston Point Beach

Kingston Point Beach, within easy walking distance from downtown, provides one of the few public beaches along the tidal Hudson River. In addition to a large swimming area, the park includes a public motorboat launch, volleyball courts, kayak and canoe launches, and a picnic pavilion. Beginning in 2017, the City of Kingston took steps to improve accessibility for people with disabilities at Kingston Point Beach, following the recommendations of an on-site assessment by the Northeast ADA Center (Americans With Disabilities Act) which took place through the Hudson Estuary Accessibility Project (PDF). With funding from a River Access grant, Kingston installed an accessible beach mat, purchased a beach wheelchair, improved accessibility to and within changing rooms and restrooms, and designated accessible parking. These improvements, completed in 2022, implemented the recommendations of the on-site assessment.

Chris Bowser

Students with eels from Quassaick Creek in Newburgh.

Help us protect the Hudson and learn more about DEC's Hudson River Estuary Program.
Find out how you can become a partner in conservation.

Phone: (845) 256-3016 | Email: hrep@dec.ny.gov | Web: www.dec.ny.gov/lands/4920.html

View of the Hudson River from
Sojourner Truth State Park in Kingston

Laura Heady