

The Nature  
Conservancy



New Jersey

# NEW JERSEY | ANNUAL REPORT

JULY 1, 2022 - JUNE 30, 2023



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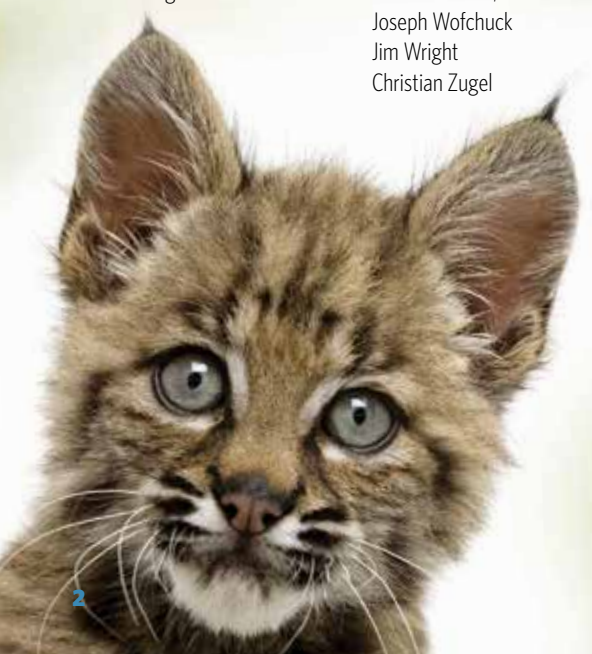
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# Dear Friends,

The thick orange haze of Canadian wildfire smoke that blanketed our towns and most of the northeastern United States earlier this year was a very tangible reminder that we live in a connected world where negative climate and biodiversity impacts in one place can reverberate in another part of the globe. Fortunately, that also holds true for positive conservation efforts! Our work in New Jersey to address climate and biodiversity challenges—funded by your generosity—is critical here, but also resonant well beyond state lines.

I am proud to share this report detailing the incredible accomplishments we have achieved in the last year and want to thank you on behalf of the entire Nature Conservancy team for catalyzing so much progress. Together, we are protecting and connecting land in New Jersey's corner of the Appalachian Mountains, a continental stronghold of resilience. We are freeing

New Jersey's rivers from hazardous, antiquated dams, and sharing our learning in the US and Europe.

We are advocating and taking action to restore and maintain coastal salt marshes which protect people from accelerating sea level rise and are nurseries for numerous Atlantic Ocean species, we are infusing nature's benefits into the landscape of New Jersey's cities, and we are making TNC's flagship preserves in New Jersey more accessible and welcoming to people from varied backgrounds.

Remember, your support made these advances for people and wildlife possible. I hope you will join us in celebrating the outcomes and committing to a future of meaningful conservation for our state and our planet.

Yours in conservation,

Dr. Barbara Brummer

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# WHERE WE WORK

## BOBCAT ALLEY

Expanding the vision and the protected land footprint in this critical wildlife migration corridor, with a goal to protect 20,000 acres by 2030



Johnsonburg Swamp Preserve

High Mountain Park Preserve



## PAULINS KILL WATERSHED

Scaling up dam removals and assessing river restoration efforts using data from the last eight years of traditional monitoring and new eDNA techniques

## POLICIES FOR NATURE

Advocating in Trenton and Washington, D.C. for nature-friendly policies like the Recovering America's Wildlife Act, dam removal legislation, and policy changes to increase habitat connectivity

Maurice River Bluffs Preserve

South Cape May Meadows

Garrett Family Preserve at Cape Island Creek



## CITIES

Engaging with partners in cities to implement greening projects and nature-based solutions that increase resilience to the effects of a changing climate and enhance quality of life for residents

## COASTAL

Providing science, strategy and leadership to prioritize and accelerate coastal marsh restoration

## PRESERVES

Incorporating insights from different user groups to improve accessibility and enhance visitor experience at our flagship preserves

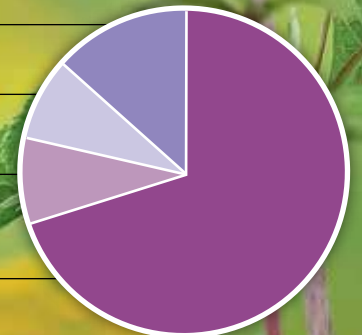
# Financial Overview

The Nature Conservancy in New Jersey ended FY23 on solid financial ground. Total operating revenue was \$10.2 million, almost 70% of which came from private contributions. Operating expenses stood at \$8.2 million, a 23% increase from FY22, influenced largely by growth of our Cities and Government Relations programs and filling open positions. The pie chart below shows sources of operating and capital revenue. Our endowments portfolio gained value (4.9%), ending the year at \$25.6 million. Investment income from endowments contributed about \$1.4 million to our operating revenue (13%).



## Sources of Operating and Capital Revenue

- Investment Income 13.3%
- Other Income and Mitigation Credit Sales 8.1%
- Government Grants and Contracts 8.8%
- Private Donors 69.8%



MAP TOP TO BOTTOM Bear cub © Jim Thomson; Water sampling in the Paulins Kill © Ellen Creveling/TNC; Tree planting at Newark's Branch Brook Park © Tricia Aspinwall/TNC; Paulina Dam © Kiera Malone/TNC; Shark tagging © Mary Conti/TNC; Accessible picnic table at Garrett Family Preserve © Alicia Calkins/TNC RIGHT A common yellowthroat perches in a field full of Joe Pye weed © Shannon Merolla/TNC Photo Contest 2022





# Lands

## Bobcats Without Borders

Since 2014, when The Nature Conservancy launched efforts to protect Bobcat Alley, the region has taken on increasing importance. This corridor connecting the New Jersey Highlands to the Kittatinny Ridge is a key link in the 2,000-mile Appalachian Mountain range—one of TNC’s four global focal areas for resilience. TNC science shows that plant and animal species are shifting 11 miles northward and 36 feet upslope every decade in response to climate change, and the Appalachians provide an essential habitat refuge and migratory corridor to accommodate that movement.

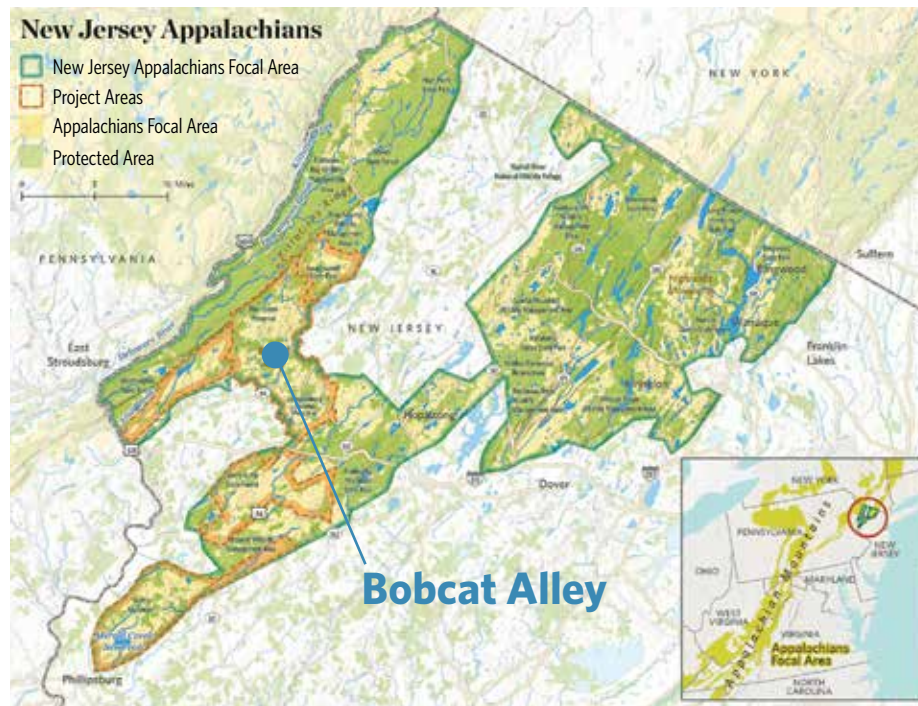
Recognizing the magnitude of Bobcat Alley’s significance to biodiversity in eastern North America, TNC has reimagined the project’s scope, tripling its planned footprint to more than 96,000 acres. Our expanded vision includes intact forests in the Kittatinny Ridge and the Highlands, which connect respectively to Pennsylvania and the Hudson Valley into the Berkshires. Together with partners, we aim to protect 20,000 acres in Bobcat Alley by 2030!

### A Boffo Year in Bobcat Alley

TNC and our partners have protected just over 1,600 acres in Bobcat Alley to date, including these parcels in the past year:

- Sixteen acres with The Land Conservancy of New Jersey at their Yards Creek Preserve in Blairstown, increasing the site to more than 300 contiguous acres
- Ten acres in conjunction with Ridge and Valley Conservancy that connect lands in our shared Blair Creek Preserve
- Thirty-six acres with both partners that will be stewarded by Ridge and Valley Conservancy as the base of their new Millbrook Seeps Preserve adjacent to the Kittatinny Ridge

All these resilient, newly conserved lands provide space for wildlife species like bobcats and black bears to move and adapt to evolving environmental conditions.



TNC is tripling  
Bobcat Alley's  
scope to  
more than  
**96,000**  
ACRES





# Conservation Blueprint Plus+

The Nature Conservancy, New Jersey Conservation Foundation and Rowan University continue to upgrade and promote the New Jersey Conservation Blueprint, a free, interactive online mapping tool that empowers users to identify the most important lands to protect before the state reaches build-out—when all land is either developed or preserved. Most recently, the coalition has developed a companion tool called the Conservation Blueprint Plus+, which features:



- Every parcel displayed according to its priority model ranking, so users can easily view single or multiple important land areas together
- Clear display of how and why parcels are prioritized—for example, what natural features a site contains to earn a particular ranking
- Ability to create, save, print and share reports for single or multiple parcels, including priority rankings, natural resource characteristics and tax information
- Custom filters to view criteria like acreage and agricultural value

The Blueprint Plus+ is being tested in focus groups for refinement before its scheduled public launch in the fall of 2023. The tool will provide vital information to help municipalities and local organizations determine the most important remaining lands to preserve in their communities.

**15,500**  
**ACRES PROTECTED**

The Conservation Blueprint is being used by dozens of conservation organizations across NJ and has influenced the protection of nearly 15,500 acres over the last three years!



Scan to learn more  
about Conservation  
Blueprint







# Preserves

## Nature for All



South Cape May Meadows is brimming with new features including a solar phone charging station, shade structure, ADA-compliant benches and compacted surfaces for strollers and wheelchairs, and next year we will unveil a new all-persons boardwalk through the freshwater marsh (see rendering). Maurice River Bluffs Preserve now boasts a much-needed, ADA-compliant portable restroom near the parking area.

Garrett Family Preserve—which welcomed a whopping 40,000 visitors in 2022!—offers an accessible picnic table and benches, and was the pilot location for a digital accessibility guidebook that individuals with mobility issues can use to plan their visit. The guide will be tested, refined and replicated for other TNC preserves.



### High Mountain Happenings

Guided hikes at High Mountain take on extra value when staff and volunteers can gather visitor feedback and ideas to make the preserve more welcoming. Last fall, our stewardship team welcomed Hikeolution, whose mission is to inspire more people of all backgrounds to get outside.

Their group provided valuable input about how TNC can create an atmosphere of safety for people who may not be familiar or comfortable with being in nature.

To make our five flagship preserves more welcoming, The Nature Conservancy has been gathering feedback from guests and individuals from diverse communities to better understand visitor needs. We are already using the insights to guide projects that enhance the user experience at these TNC outposts.

At Johnsonburg Swamp Preserve, we added two ADA-compliant picnic tables and a scenic overlook area. Named for the donors whose generosity made conservation of this preserve possible, the Snyder Overlook is wheelchair-accessible and looks out on the beautiful Mud Pond. At High Mountain Park Preserve, we installed specially designed benches that allow people who use wheelchairs to move onto the seating or pull up alongside it.





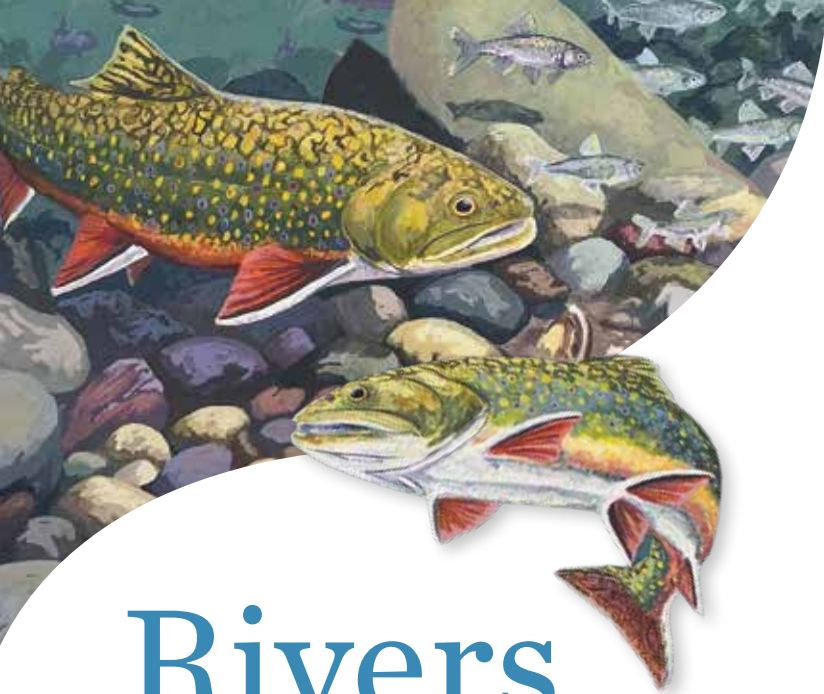


## Monarch Mania

The Garrett Family Preserve was protected in part with funding from the estate of artist and nature lover James Garrett. TNC honors this legacy with permanent art easels, a poetry trail, and now a larger-than-life, interactive butterfly sculpture created especially for TNC by artist Rubem Robierb. The gleaming orange statue, called Dream Machine Monarch, was unveiled this past year during a special event that brought together the artist, community and conservationists, with remarks from ABC-TV meteorologist Sam Champion and the local mayor. It celebrates the positive transformational power of nature while highlighting TNC's work to support habitat for the endangered monarch butterfly and other pollinators at the site—and makes for a fun photo op, too!







# Rivers

## Another One Bites the Dust

As of fall 2022, one less impediment is blocking the Paulins Kill. The County Line Dam, a privately owned structure on the border of Warren and Sussex counties that collected unhealthy sediment and kept migratory fish from reaching historic spawning grounds for 100 years, is no more. The Nature Conservancy led removal of the four-foot-high, 230-foot-wide dam in concert with the supportive owner, the U.S. Fish & Wildlife Service and the New Jersey Department of Environmental Protection (NJDEP). A relocation and recovery plan for sensitive freshwater mussels was included in the restoration plan, ensuring their full potential to recolonize in the river. Our monitoring is already showing improvements in water quality.

The final of TNC's three planned Paulins Kill dam removals is in our sights. Blairstown's Paulina Dam is not only disconnecting the river, but is also classified by the State as a significant hazard, endangering people and property. This year, TNC updated the design for removal of the Paulina, gathered technical information and developed a mussel relocation plan. Permit review is underway, and we expect to begin removal in the late fall of 2023, with completion projected for 2024.

Removal of these three dams—the Columbia, County Line and Paulina—will reconnect a total of 45 miles of the mainstem Paulins Kill and tributaries!







## On a Quest in the Pequest

The Nature Conservancy is working with the State of New Jersey and two private owners to remove two dams on the Pequest River. The Upper and Lower E.R. Collins Dams lie in the center of Belvidere in Warren County, just upstream from where the Pequest meets the Delaware River. Unfortunately, these dams do more than just prevent fish passage; they cause flooding to adjacent homes and businesses with every severe storm.

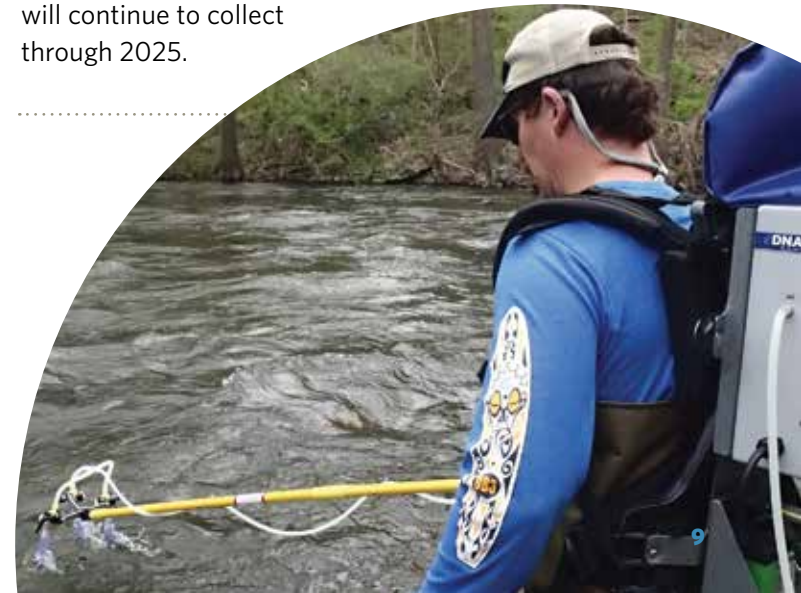
We are now in the midst of design and engineering for the removals. In mid-June, TNC staff and our engineering firm held a community outreach event at a local park to

share dam removal plans. The meeting had an open format and encouraged community input, design suggestions, and voicing enthusiasm and concerns around the project. Topics of discussion included how flooding is exacerbated by stormwater, whether trees would be removed, and interest in kayaking and fishing opportunities. It is vital to connect with community to address potential concerns and find opportunities to incorporate their desires into the removal plan. We look forward to continuing to work with Belvidere residents over the coming year as the design is finalized and we move into permitting.

## Science Is in Our eDNA

TNC continues working with Rutgers University and NJDEP to collect fish data in the lower Paulins Kill watershed, using new eDNA methods to monitor the presence or absence of American shad, river herring and sea lamprey. The annual sampling...includes all critical life cycle stages: spring migration, spawning, egg development, larval growth and fall migration. During the 2022 season, American Shad DNA was detected at all sampling locations. DEP biologists also documented American brook lamprey and spawning sea lamprey for the first time in many years in the Paulins Kill. The presence of these species is a good indicator of watershed health and connectivity because they need different habitat at various life stages.

Understanding the impact of dam removals on species recovery is imperative to measure the success of each project and demonstrate the need for more dam removals. This data supplements the existing biological and water quality data that TNC has collected throughout the Paulins Kill watershed since 2015 and will continue to collect through 2025.







# Climate

## A Bright Spot for the Lighthouse Center

Fifty acres of degraded wetland at the Lighthouse Center in Waretown, Ocean County, are a visible reminder of the challenges—like erosion, accelerating sea level rise and increased tidal inundation—that all of New Jersey’s coastal salt marshes are facing. We cannot afford to lose these habitats, which are critical for marine life and help protect human communities. TNC is co-leading a team to rejuvenate the Lighthouse Center’s ecology over the next five years, coalescing partners that bring specialized expertise in hydrology, beneficial use of dredged sediment and marsh edge protection to the initiative. Enabled by

recent public funding opportunities, together we will begin rigorous site assessment in fall 2023, and phased implementation of science-based, site-appropriate restoration techniques in fall 2024. Learning from the project will be valuable to guide best practices for future marsh restorations.

*Partners: Ducks Unlimited, Inc.; Natural Resources and Education Foundation; New Jersey Department of Transportation; New Jersey Department of Environmental Protection; U.S. Fish and Wildlife Service*

### Swiping Right for Resilience

At the request of NJ Department of Transportation, and since summer of 2022, TNC has been working with Stockton and Monmouth Universities to unify how nonprofits and government agencies approach goals, targets and policies for handling sediment in the Garden State’s coastal estuaries. The strategy involves matching boat channel dredging projects with impaired coastal marshes that need a “mud boost” to keep from drowning. TNC will lead partners over the next two years to develop this shared framework for the state agencies, which will promote beneficial sediment use for widespread restoration of New Jersey’s struggling salt marshes.





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## That's a Wrap @ Gandys Beach

In 2023, TNC concluded seven years of physical and biological monitoring of New Jersey's first-ever oyster reef breakwater in Gandy's Beach, Cumberland County. Topline results—which were presented at the Restore America's Estuaries Conference in December 2022—showed that the breakwaters successfully mimicked intertidal reefs, were colonized by oysters and other shellfish comparably to regional natural oyster beds, provided habitat for juvenile fish, and met or exceeded national success standards for oyster restorations. Project insights have been shared with regulators and restoration practitioners to improve new designs. The project established a strong relationship among the involved partners, sparking ongoing collaboration throughout the state.

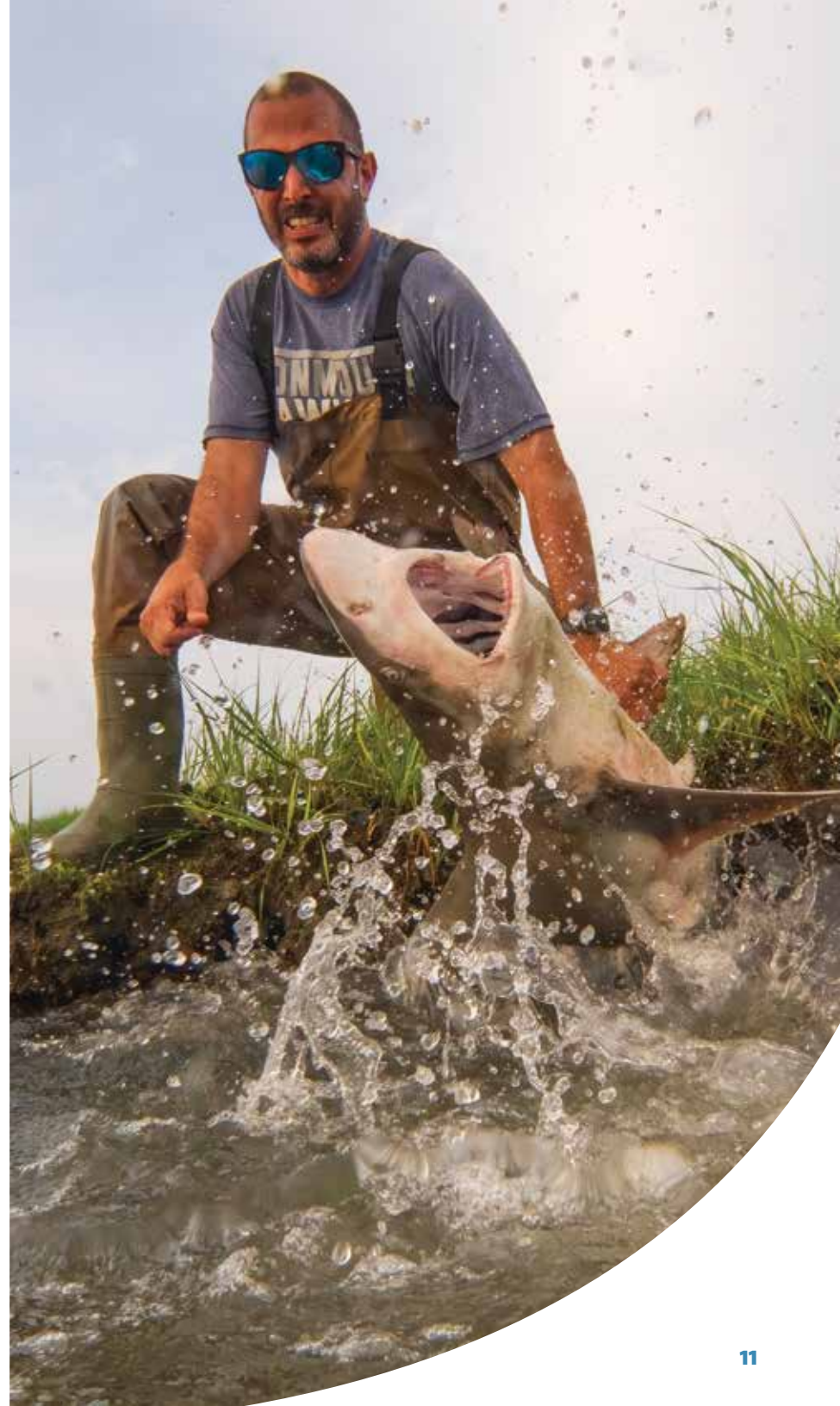
*Partners: Partnership for the Delaware Estuary; Rutgers University Haskins Shellfish Laboratory; Stevens Institute of Technology; U.S. Fish and Wildlife Service*

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## Making a Mark for Sharks

With their toothy grins and glimmering fins, sharks are among the most charismatic—and important—marine wildlife species in New Jersey's waters, and our 200,000 acres of coastal wetlands are critical for their survival. Smooth dogfish, sandbar sharks and sand tiger sharks use New Jersey's back bays as important nursery areas, with their pups relying on the resource-rich salt marsh habitat to hide, feed and grow. These sharks benefit from healthy coastal habitats and in return play a vital role in marsh function and biodiversity balance, as well as being an important part of the food web in the Atlantic Ocean.

With many of New Jersey's salt marshes eroding and drowning due to accelerating sea level rise, boat wakes and hardened shorelines, the nurturing resources and conditions they provide to sustain sharks and so many other species are at risk. TNC is funding tagging, monitoring and other research through Monmouth University that will help us better understand the symbiotic relationship of coastal salt marshes and these three shark species, and to plan and implement regional conservation actions to help them survive for the future.







# Greening Our Cities

## Branching Out

This year, TNC developed a new relationship with the nonprofit Branch Brook Park Alliance. America's very first county park, Branch Brook Park is located in Newark's North Ward and has the country's largest collection of cherry trees, with visitors flocking to see the blossoms each spring. Branch Brook Park Alliance requested TNC's support to plant 200 new trees in the spring of 2023. We provided funding for the trees and planting equipment, and our staff joined partners to plant 14 varieties of trees throughout the park. Going forward, TNC's expertise in freshwater restoration could help to address flooding and related restoration of water bodies within the park.

## Newark Tree Canopy Initiative

It is no coincidence that with a tree canopy cover of less than 14%, Newark has the second-worst urban heat island effect nationwide. Trees play a vital role in reducing urban heat, as well as improving air quality and helping to absorb stormwater—both of which are also major issues in Newark.

The Nature Conservancy is working with the City of Newark and New Jersey Institute of Technology on the Newark Tree Canopy Initiative. This project builds on our Newark



Greenprint, an interactive mapping tool developed with the City and Rowan University to identify areas of the city most in need of greening. TNC worked with the Canopy Initiative team to secure a \$1.2 million NJDEP Natural Climate Solutions grant to the City of Newark, which will support planting 331 trees across five neighborhoods with low canopy cover.

We also led an expanded team to submit a proposal to the USDA that would dramatically increase the number of trees planted, add permeable tree pits to absorb stormwater, and incorporate a paid workforce development program, training Newark residents to plant and maintain the new trees. The larger initiative would partner with anchor community-based organizations like the South Ward Environmental Alliance, Ironbound Community Corporation, Greater Newark Conservancy, and Unified Vailsburg Services Organization, and support a long-term goal to increase Newark's canopy cover to 25%.

We are currently working to determine the scope of the Tree Canopy Initiative. Most importantly, increasing shade, air quality and stormwater absorption will benefit current Newark residents and generations to come.





## Green Light for Green Infrastructure

Over the last two years, we have been building relationships with partners in the city of Paterson. We are working closely with the City administration and Rutgers University's Water Resources Program on the Fair Street Green Street project, through which Paterson's Fair Street will be transformed with green improvements to absorb and filter stormwater to help reduce flooding. TNC led a coalition of partners to secure state funding for this project. Over the coming year, the partnership will engage neighborhood residents in a design for the Fair Street Green Street.

Another important partner is Passaic County Habitat for Humanity, which is leading

development of Clinton Street Park. A design for the new city park was developed with community input and includes not only play equipment, performance space, and game tables, but also green features that will help absorb stormwater and prevent it from running off into local streets and the city's combined sewer overflow system. These include a terraced garden, picnic lawn, rain garden, and many new trees. The Nature Conservancy will provide funding and technical assistance with tree planting and other green stormwater infrastructure elements at the new park.

## Nature's On Tap at the Great Falls

The Nature Conservancy is excited to collaborate with Montclair State University on development of a New Jersey Green Innovation Center in Paterson. Located within the boundaries of the Paterson Great Falls National Historical Park on a portion of the former Allied Textile Printing site, the Green Innovation Center will be a hub for research, education, and innovation in the areas of sustainability, environmental justice, and economic development.

We will provide technical assistance on increasing public access to the Great Falls and the Passaic River, brownfield redevelopment planning, public participation, and environmental justice. The University brings expertise from its faculty and staff to maximize environmental conservation, K-16 environmental education opportunities, and economic development for Paterson.

TNC and the University signed a memorandum of understanding in October 2022, demonstrating our commitment to working together in partnership with the local community to help create a sustainable future for Paterson.









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**TO LEARN MORE, PLEASE CONTACT  
Kelly Grassi at [kgrassi@tnc.org](mailto:kgrassi@tnc.org)**

