



The Nature Conservancy  
Maryland/DC

2022 ANNUAL IMPACT REPORT

# Change is Here



**The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.**

ON THE COVER © Katherine Rosenberger;  
THIS PAGE Tim Purinton © TNC

## In the winter of 1991, I took a class on climatology at McGill University where I vividly remember Professor Pollard lecturing about the greenhouse gas effect.

I don't recall if he called it "global warming"; he certainly didn't say "climate change." That term came into use later as "global warming" didn't capture the full weight of the crisis: an unfolding disaster that includes not only extreme heat but also rising seas, biodiversity loss, floods and ocean acidification.

Scientists have been warning policy and decision makers for at least three decades to take climate change seriously. After tepid and regressive responses to date, the U.S. government has finally leaped into action. With the passage of the Inflation Reduction Act (IRA), we have a fighting chance to meet a substantial part of our commitments under the Paris Agreement that the United States signed in 2016. All our state chapters, most notably our TNC colleagues in West Virginia, leveraged strong relationships with our legislators, built over decades, and urged our senators and congressmen/women to support the IRA. I'm proud to note that in Maryland, eight of our nine senators and congressmen voted for its passage.

Here in Maryland and D.C., policy makers have been steps ahead of the federal government in setting renewable portfolio standards, providing incentives for clean energy technology and jump-starting the green economy. The Climate Solutions Now Act, which passed in 2022, positions Maryland as a national leader, setting a goal to reduce greenhouse gas emissions by 60 percent by 2031 and to achieve net zero emissions by 2045.

As a member of Maryland's Greenhouse Gas Mitigation Working Group, I'm excited that our next priority will be incentivizing zero emission vehicles and their infrastructure, a follow-up to our influential *Decarbonizing Buildings in*

*Maryland* report. The report was embraced by the legislature and established energy performance standards for structures over 35,000 square feet in area, that would enable a 20 percent reduction in direct emissions from buildings by 2030 and net zero by 2040. Buildings and vehicles are two of our largest sources of carbon pollution.

To support this ambitious vision of a climate-resilient Maryland and D.C., in 2018 we launched the \$70-million *Change Is Here* campaign. Thanks to you, we have reached more than 90 percent of our fundraising goal for this bold campaign, which concludes in July 2023. To complete the effort, we are making a final push to protect one of Maryland's most climate resilient and biodiverse areas, as well as one that is rich in carbon stocks—the Appalachians. I urge you to learn more (see pages 10–11) and consider supporting our new *Essential Forest Fund*, which will help us protect, restore and manage critical lands and waters in the Appalachians' Allegheny Front—a landscape that is a critical connector to large swaths of protected lands to our north and south.

Thank you for all your support over the many past years. Without it we could not have expanded our work to meet the challenge of the century, climate change. This challenge needs organizations like TNC that are willing to innovate and drive practical and positive conservation solutions with a diversity of partners.

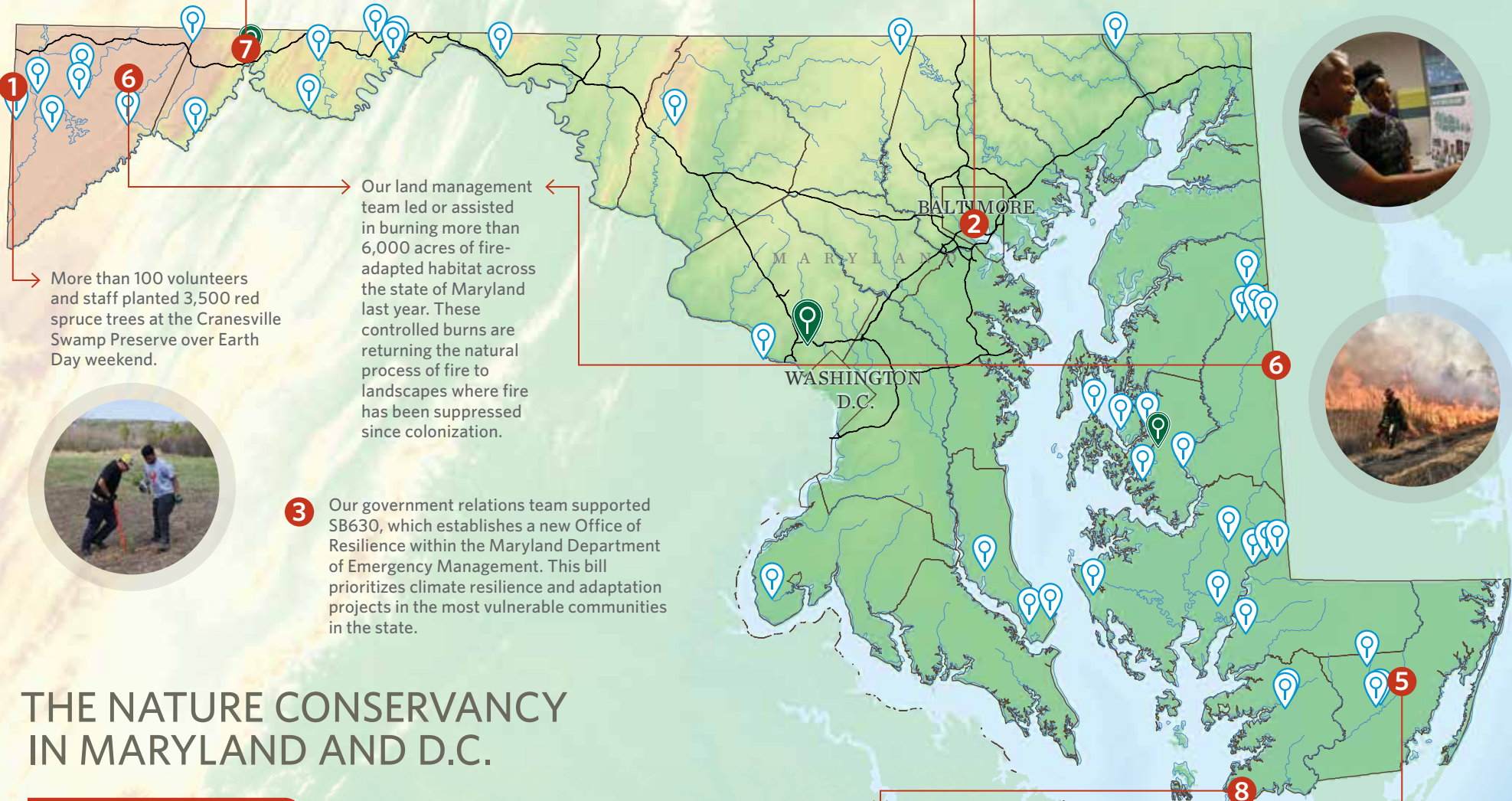
*Tim Purinton*

Tim Purinton,  
Executive Director of the Maryland/DC chapter



Through a partnership with the American Forest Foundation, we supported the enrollment of 844 acres of private, family-owned forestland in western Maryland into the Family Forest Carbon Program.

Our Baltimore conservation team led the community design workshops and subsequent planting of more than 100 trees in the Turner Station neighborhood as part of a partnership called between TNC and the local community called the Witness Trees Project. Read more on page 4.



More than 100 volunteers and staff planted 3,500 red spruce trees at the Cranesville Swamp Preserve over Earth Day weekend.

Our land management team led or assisted in burning more than 6,000 acres of fire-adapted habitat across the state of Maryland last year. These controlled burns are returning the natural process of fire to landscapes where fire has been suppressed since colonization.

Our government relations team supported SB630, which establishes a new Office of Resilience within the Maryland Department of Emergency Management. This bill prioritizes climate resilience and adaptation projects in the most vulnerable communities in the state.

Our government relations team supported the Climate Solutions Now Act, which commits the state to net-zero emissions by 2045 and to a 60 percent reduction in carbon emissions by 2031—the strongest near-term emissions reduction goal in the country.

Our resilient coasts team—along with other partners—started working with an advisory committee of Crisfield, MD community leaders on strategies to improve long-term flood resilience in this vulnerable coastal community.

Our on-the-ground wetland restoration team restored 114 acres of degraded wetlands along the Pocomoke River last year. These 114 acres are now part of a multi-year effort that has led to the restoration of wetlands and floodplains along approximately nine miles of the once channelized Pocomoke River.



# THE NATURE CONSERVANCY IN MARYLAND AND D.C.

## 2022 AT A GLANCE

- TNC Offices
- TNC Preserves and Easements

# We Build Green Cities



ABOVE Andrea van Wyk © TNC; RIGHT Residents of Washington, D.C., play at the splashpad in Canal Park, which is made from about 70 percent stormwater retained from the park over the summer and fall seasons. © Greg Kahn INSET, TOP AND MIDDLE Turner station residents participate in a community design workshop led by TNC. © Severn Smith/TNC; BOTTOM Painting of Herietta Lackson on display at the Lyon Homes Community Center.

**Baltimore Program Goal:** We're collaborating with partners to address the twin challenges of environmental justice and climate adaptation through nature-based infrastructure and human-centered design. These tools and techniques will contribute to advancing equitable conservation across scales—from the neighborhood to the estuary.

## Baltimore Conservation Team Grows

In January 2022, Baltimore Program Director Isaac Hametz hired Andrea van Wyk as the chapter's new Baltimore Community Projects Manager. As an accomplished community organizer, Andrea has already hit the ground running by leading volunteer events, community design workshops and youth engagement projects in Baltimore's Turner Station neighborhood.

## Witness Trees

This past summer, the Baltimore conservation team led a series of community workshops with residents of Turner Station as part of a community-driven partnership called the Witness Trees Project. The project aims to increase tree canopy cover in the neighborhood through a design process that incorporates the community's history and values through art. During the workshops, Turner Station residents provided feedback on the preliminary site and interpretive design developed from community input and visioning. Next, TNC staff and contractors will plant more than 100 trees across the community. The final phase of the project will pair those trees with storytelling through artwork.

**Washington, D.C. Program Goal:** We'll catalyze the creation of a robust Washington D.C. stormwater retention credit (SRC) market by constructing green infrastructure projects and selling stormwater credits. SRCs function like carbon credits; companies can purchase them to offset environmental damage from projects, thus incentivizing environmental investments and protection.

## D.C.'s Stormwater Retention Credit Market Grows

The Nature Conservancy's goal in Washington, D.C. has always been to help the city's Department of Energy and Environment create a robust stormwater credit-trading market. Through this market, developers and other land-owners in the District are incentivized to meet their legal stormwater management obligations by purchasing credits through a regulated market. TNC and others are installing green infrastructure projects in critical parts of the city's Anacostia and Potomac River watersheds where they will have the greatest impact on water quality. Those projects generate high-impact credits that can be purchased by developers who can't meet 100 percent of their stormwater management requirements onsite for a variety of reasons, including the need to maximize amenities, cost considerations, building footprint and more. By helping catalyze this first-of-its-kind stormwater market, TNC is helping establish D.C. as a worldwide leader in urban water quality.



## D.C.'s Stormwater Credit-Trading Market Continues to Grow

TNC—through a wholly owned subsidiary called District Stormwater—is currently the largest voluntary supplier of Stormwater Retention Credits (SRCs) in the District's stormwater credit-trading market. Note: One SRC = one gallon of stormwater stored per average rain event.

### Mount Olivet Cemetery

Total SRCs generated: 217,717

Total annual gallons of retention: 5.4 million

Trees planted onsite: 420

### Knollwood Life Plan Community

Total SRCs generated: 91,054

Total annual gallons of retention: 3 million

Trees planted onsite: 49

### District Stormwater Credit/ Sale Summary

Total credits certified: 1,216,215

Total credits sold: 1,002,637

Total credits currently available: 213,578

Total credits coming online in 2023: 56,621

Average price per sale: \$2.01

**Coming Soon!** We recently signed a contract with Washington Hebrew Congregation in Northwest Washington, which will generate an estimated 100,000 additional SRCs through annual stormwater retention of 3.4 million gallons.



# We Strengthen Coasts

**Program Goal:** We're working to ensure that Maryland's coastal habitats and communities are resilient in the face of sea-level rise.

## Lockheed Martin Boosts Coastal Resilience Program

Last year, the Lockheed Martin Corporation, headquartered in Bethesda, Maryland, donated \$2 million to the Maryland/DC chapter to fund climate adaptation for vulnerable coastal communities and ecosystems. Among other things, Lockheed Martin's grant will support TNC staff who are working with the Department of Defense Readiness and Environmental Protection Integration Program to protect up to 4,000 acres of habitat in the Middle Chesapeake Sentinel Landscape—home to one of the Navy's premier aircraft testing locations, and a site that TNC scientists identified as one of the most climate-resilient and biodiverse landscapes in the region. Through this support, the chapter's Coastal Resilience team has added new and strategic capacity this past year: Dr. Elizabeth (Liz) Van Dolah, Ph.D., joined the team in the role of Environmental Anthropologist. Liz is working with some of the Chesapeake Bay's most vulnerable communities around climate adaptation

**“Lockheed Martin proudly supports The Nature Conservancy's efforts to help strengthen and protect the natural ecosystems in the Chesapeake critical to our national security.”**

— Meagan Campion, Director of Social Impact, Lockheed Martin

strategies. Joe Galarraga also joined the team as the Coastal Resilience Project Manager—a role that will support initiatives across the team, with a focus on managing our land protection and community engagement projects.

## Studying the Ecological Effects of Sea-Level-Rise

We are working alongside George Mason University and the Maryland Department of Natural Resources to better understand how marshes and other coastal habitats can reduce wave energy from storms and mitigate flooding in coastal communities. This work is funded by a NOAA Ecological Effects of Sea-Level Rise grant. In 2022, our partnership completed the multi-year field work and data collection phase of the project, and we are now moving into the analysis, statewide modeling and recommendations phase. The results and models will be used by the Maryland Department of Natural Resources, local municipalities and other land use decision-makers to make better choices about where to restore and protect coastal habitats so that they provide the greatest ecosystem services to local communities.

## Preserving Coastal Parklands

In 2022, the Maryland/DC chapter formed a partnership with the National Park Service and the University of Virginia (UVA) through a grant administered by the U.S. Army Corps of Engineers. The partnership's mission is to research, develop and test Natural and Nature-Based



U.S. Navy aircraft conduct regular training flights over the Middle Chesapeake Sentinel Landscape—a region TNC has prioritized due to its high biodiversity and climate resilience. These overlapping values have led to a conservation partnership between TNC and the Department of Defense. © U.S. Navy photo by Paul Lagasse



Features (NNBFs) for three coastal national parks in the Chesapeake Bay region: Colonial National Historic Park, Harriet Tubman Underground Railroad National Historical Park and Assateague Island National Seashore.

The project aims to preserve the natural and cultural resources of the parks that are valued for the enjoyment, education and inspiration they provide—features that are under threat from sea-level rise. The team will work to develop NNBF designs that provide natural alternatives to

protect these coastal parks and their associated communities from flood impacts. In 2022, the team initiated the project with a focus on Colonial National Historic Park in Jamestown, Virginia. After a site visit and design workshop, the UVA design team has created a series of NNBF-based landscape design concepts that are now under evaluation and review. TNC staff will continue to serve as project advisors and consultants as the project moves forward with additional design and implementation tasks across all three parks.

A section of shoreline at the Colonial National Historic Park illustrates the impacts of flooding caused by sea-level rise. © Jackie Specht/TNC; INSET Scenes from a field workday where team members checked monitoring equipment as part of the Studying the Ecological Effects of Sea-Level Rise project. © Jay Fleming

# We Transform Agriculture

**Program Goal:** We will support an agricultural economy in which farms provide healthy food, preserve sources of clean water and show resiliency to climate change, as well as supporting a healthy Chesapeake Bay where people and nature thrive.

## New Staff Enhance Program Capacity

This past summer, we hired two new employees to support our regenerative agriculture program: Agriculture Program Director Daniel Sweeney and Applied Agricultural Scientist Dr. Kristin Fisher. They will work directly with the local agricultural community and other partners in Maryland and Delaware to increase the adoption of conservation practices that improve local water quality and build resiliency to climate change. Former Program Director Amy Jacobs will now oversee The Nature Conservancy's agriculture work across the entire Chesapeake Bay watershed.

Dan Sweeney previously worked for the Maryland Agriculture and Resource-Based Industry Development Corporation, delivering finance programs to farmers and other industries. He has also worked for the Maryland General Assembly.

Kristin Fisher holds a PhD in soil and watershed science from the University of Maryland and served as an agricultural programs consultant for Montgomery County. Her previous work has focused on nitrogen transport and cover crops.

## Understanding Landowner Attitudes Toward Wetland Restoration

We must restore degraded land in key locations across the Chesapeake Bay watershed so that natural systems can function well again. These systems can improve water quality and climate resiliency, provide habitat for terrestrial

and aquatic species, reduce flood risks and replenish our aquifers. Achieving restoration at scale depends on having private landowners in our priority locations across the watershed voluntarily enroll in restoration programs. TNC led a landscape analysis with our partners to identify priority locations where restoration will have the greatest benefits to improve water quality and increase climate resiliency.

To better engage these priority landowners, we need a better understanding of their views, concerns, motivations and awareness of restoration programs. In spring 2022, TNC partnered with Ducks Unlimited and the Natural Resources Conservation Service and U.S. Fish and Wildlife Service to survey landowners across the Delmarva Peninsula.

The survey revealed that most priority landowners support habitat restoration and its benefits. Specifically, they value the opportunity to see more wildlife, improve water quality and earn money from restoration programs. However, there is a significant lack of awareness around restoration opportunities and programs, as 65 percent of landowners reported that they had never been contacted about potentially enrolling their land in a voluntary restoration program. We are now reaching out to these landowners through a direct mail campaign to provide them with information and contact information for wetland restoration programs.



Postcard created by TNC for a direct mail campaign to raise awareness of wetland restoration programs with private Delmarva landowners.



## Expanding Precision Agriculture Through Voucher Program

With funding from the Chesapeake Bay Trust, TNC partnered with two agribusinesses to work with 12 Maryland farmers to promote precision agricultural practices through a unique voucher program. Each farmer received a \$1,000 voucher to spend on expenses associated with advisor time, data entry, soil sampling, map generation, and other best practices for precision nutrient management.

Most farmers who were interviewed at the conclusion of the program reported that having the voucher helped them adopt new precision nutrient management practices. In the first year of this pilot program, the participating farmers used enhanced nutrient management practices on more than 2,400 acres, which improves water quality for the Chesapeake Bay and soil health for farmers. In 2023, TNC and our agribusiness partners will use what we learned from the pilot to expand the voucher program into additional geographies within the Chesapeake Bay watershed, using a larger network of trusted agribusiness partners.

INSET, TOP TO BOTTOM Submerged aquatic vegetation is a sign that water quality is improving in the Chesapeake Bay. © Jay Fleming; We are learning that Delmarva landowners have favorable attitudes toward wetland restoration as habitat for wildlife and for improving water quality. © Severn Smith/TNC; LARGE Attendees of a TNC-led regenerative agriculture field day learn about best practices that improve nutrient management on farm fields. © Matt Kane/TNC



# We Conserve Forests in the Appalachians



**Program Goal:** We will work to conserve and strengthen our piece of the Appalachians—the Allegheny Front—a critical migratory corridor for thousands of species in this globally important landscape.

## Welcome to Our New Allegheny Front Land Protection Manager

As our new Allegheny Front Land Protection Manager, Denny Nurkiewicz will conduct landowner outreach, build partnerships, and oversee research and due diligence to develop and close land protection projects in the region. In this shared position, Denny will work in Maryland, Pennsylvania and West Virginia within the Allegheny Front Focal Landscape in the Central Appalachians.

Denny grew up hunting and fishing in southeastern Pennsylvania. He holds a B.S. from Pennsylvania State University and a law degree from Thomas M. Cooley School of Law. Denny's work experiences include practicing law, working for a land trust in Pennsylvania and working for the energy industry. Denny says he is "excited, like a child" for the opportunity to contribute to TNC's mission in the Appalachians.

## Monitoring Partnership Established at Two Old-Growth Demonstration Sites

In 2021, TNC established two old-growth demonstration sites in western Maryland where we are utilizing innovative silvicultural practices to accelerate old-growth characteristics in even-aged forests. In 2022, we established a new long-term monitoring partnership with the Allegany College of Maryland's Forest Technology Program to sustain long-term annual monitoring at the sites. Data will help us tell the story and build our understanding of how our management actions shape the forest over time.

The curriculum at this award-winning two-year degree program emphasizes practical skills like plant identification and forest inventory methods. Associate Professor and Forestry Program Director Marie Perrin Miller is always looking for real-world laboratories where her students can hone their skills. Thanks to this newly established partnership, TNC will have the person-power to complete annual monitoring, as well as a chance to share with future forestry professionals the importance of managing forest for old-growth habitats.

## Planting Red Spruce: Welcome Back Volunteers!

After a two-year hiatus due to COVID-19, we were thrilled to bring back in-person volunteers this year, particularly for the annual red spruce plantings in TNC's Cranesville Swamp Preserve. In April 2022, approximately 80 volunteers of all ages planted more than 3,500 red spruce seedlings there.

Red spruce once covered thousands of acres in western Maryland, but logging and subsequent wildfires at the turn of the 20th century drastically reduced its range. In the Central Appalachians, as much as 90 percent of the original red spruce forest may now be gone.

We've been planting red spruce in western Maryland nearly every year since 1996 and have begun revisiting sites that we planted 10 years ago to introduce age diversity. Over the past 25 years, volunteers have planted more than 65,500 red spruce trees in the forests of Western Maryland.



LEFT TNC Forest Restoration Scientist Pabodha Galgamuwe, G.A., Ph.D. poses with students from the Allegany College of Maryland during a training session as part of a new monitoring partnership. © Donnelle Keech/TNC; THIS PAGE, TOP TO BOTTOM Allegany College of Maryland students record data during an old-growth demonstration site monitoring trip © Pabodha Galgamuwe/TNC; Denny Nurkiewicz © TNC

# We Support Smart Climate Policies



The Maryland/DC chapter is working in the town of Crisfield, MD to help the community develop climate adaptation strategies. © Jay Fleming

**Program Goal:** We support science-based, pragmatic policies that promote conservation, climate mitigation and environmental justice in Maryland, D.C. and beyond. Sound underlying policies make conservation gains possible and reduce the risk from conservation losses.

## A New Office of Resilience in Maryland

In 2022, our government relations team supported SB630, an important bill that prioritizes climate resilience and adaptation projects in the most climate vulnerable communities in Maryland. The bill passed in the Maryland General Assembly and was signed by Governor Hogan. It establishes a new Office of Resilience within the Maryland Department of Emergency Management, led by a new Chief Resilience Officer. This office will coordinate climate resilience activities across state agencies and, more importantly, connect the agencies' work with the needs of local governments, communities, and businesses impacted

by climate change. It will also strengthen Maryland's competitiveness for pre-disaster mitigation funding through the Federal Emergency Management Agency and identify other programs or resources that can be leveraged to support Maryland's most at-risk communities in rural or urban environments.

## Climate Solutions Now Act

In 2022, we also supported SB0528, the Climate Solutions Now Act, which also passed in the Maryland General Assembly. This bill commits the state to net-zero emissions by 2045 and requires a 60 percent carbon reduction goal by 2031—the strongest near-term emissions reduction goal in the country.

Now, TNC will continue to work with elected officials and partners to support the implementation of this new law by focusing on the three highest emitting economic sectors in our state: Transportation, buildings and energy. We are doing this by: 1) Promoting and supporting state and local governments that lead by example through policies and programs that seek to reduce emissions from government-owned and operated entities. 2) Promoting state and local policies that set standards and goals for public and private entities by creating and improving upon the systems in place to provide incentives for reduced emissions through infrastructure development and maintenance. 3) Grounding emissions reductions programs and policies in the communities where they are implemented by building on work that is currently happening in communities across the state, with a lens towards equitable collaboration from TNC that puts partner organizations and communities at the forefront of decision making.

# We Manage Our Lands for People and Nature

**Program Goal:** When TNC acquires a parcel of land, we commit—both legally and ethically—to steward that land in perpetuity. We will continue to apply the highest land management standards to our 25 nature preserves in Maryland. We will also work with public and private landowners to improve the ecological management of non-TNC lands in priority geographies.

In 1955, just a few years after The Nature Conservancy was founded, the Mianus River Gorge was under threat from developers. With only a week’s notice, a devoted committee raised the funds needed to purchase the land. Approximately 20 years later, TNC was gifted 154 acres of high conservation value land along Nassawango Creek in Worcester County, Maryland and the Maryland/DC chapter was born. Land protection is in our DNA and will always be one of the most important tools in our toolbox.

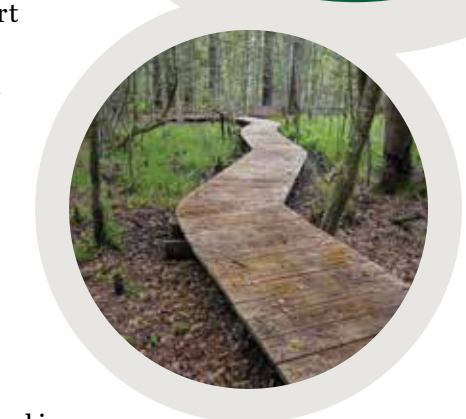
## Introducing Flagship Preserves

TNC owns 25 nature preserves in Maryland, 15 of which are open to the public. When TNC acquires a parcel of land, we commit—both legally and ethically—to steward that land in perpetuity for both people and nature. In 2022, the Maryland/DC chapter initiated what we are calling the “Flagship Preserves Project.” Of the 15 preserves that are open to the public, we are focusing in on a small subset of those preserves and partner sites that present the greatest opportunity to inspire visitors around our mission, vision and local conservation priorities. Focusing on these Flagship Preserves will help focus future investments that will lead to deeper and more strategic levels of engagement with preserve visitors, local communities, TNC members and other parties that share TNC’s vision to create a world where people and nature thrive together. In 2023, we will deploy several strategies to help us gain a baseline

understanding of preserve visitation and visitor experience. To see a comprehensive list of local TNC preserves, visit [Nature.mdplaces](https://www.nature.org/marylanddc/places).

## New Partnership with Nause-Waiwash Band of Indians

In 2022, the Maryland/DC chapter launched a new initiative to gain a better understanding of the indigenous histories connected to our 25 nature preserves. We are working with a subject matter expert to engage authentically with the current day tribes and communities that hold the historical connections to our preserves. We started the project last year by initiating a new partnership with the Nause-Waiwash Band of Indians—a community of approximately 300 descendants of the original Nanticoke Indians, whose home was, and still is the Eastern Shore of Maryland. We are focusing this research partnership on TNC’s Robinson Neck Preserve, which is located on Taylor’s Island in Dorchester County, Maryland. With our consultant, and in close coordination with leadership of the Nause-Waiwash, we are performing primary research to develop landscape histories and stories that bring out the ecological and cultural connections between the Tribe and the land that is currently the Robinson Neck Preserve.



TOP TNC staff attend the Nause-Waiwash 30th annual Native American Festival in Vienna, MD. © KC Theisen/TNC; BOTTOM Nassawango Dreck Preserve © Kent Mason

# Introducing the Essential Forests Fund



As the climate changes, plants and animals are shifting their ranges to adapt and thrive. This map shows where mammals, birds and amphibians are moving—circled in red is the Appalachians landscape, a virtual superhighway for nature. © Dan Majka/TNC (adapted for print by Nicholas Rapp); RIGHT An illustration of the Allegheny Front and some of the species that call it home. © Katherine Rosenberger

In 2018, the Maryland/DC Chapter launched an ambitious, five-year capital campaign to finance a science-based strategic plan to tackle the challenges we face. We pursued two conservation priorities where we knew our local actions would have the greatest regional and global impacts for nature and people (and staying power into the future): protecting clean water and tackling climate change.

In the past four years, we've deployed our donor support and leveraged public grants to move the needle on a number of projects. These include leading the largest river restoration project in the state, passing key legislation to make Maryland a leader in climate policy, expanding both public and private partnerships, decreasing stormwater pollution into our rivers and the Chesapeake Bay, establishing a robust coastal resilience program to protect vulnerable coastal communities and habitats, and expanding our equity-focused conservation work into Baltimore.

Now, in the final year of the campaign, we turn our attention to western Maryland, where we aspire to close out our campaign with a capstone project that will lead to lasting climate solutions for the region and the planet.

More than 400 million years ago, natural forces created the Appalachians, one of the most resilient, diverse and productive ecosystems on planet Earth. This ancient chain of forested mountains, valleys, wetlands and rivers stretches approximately 2,000 miles from Alabama to Canada. The Nature Conservancy has prioritized conservation across the Appalachians as a global imperative.

Corridors of connected, healthy forests, long understood as the lungs of the planet, are now appreciated for their vast

carbon storage potential and as strongholds of biodiversity. But these benefits only accrue if the forests are *intact* and *healthy*. Science tells us that well-managed, protected forest landscapes can provide refuges for species that are forced to move due to climate change pressures. They are **essential**.

To protect this landscape, we are launching the Essential Forests Fund. These funds will help TNC protect, manage and restore our section of the Appalachians—the Allegheny Front—at the scale necessary to safeguard its global significance.

These climate-resilient forests are also the best places in North America for sequestering carbon and already hold more than 4 billion tons of it. With proper management, we could improve the capacity of an estimated 6.5 million acres to capture carbon, offering the most cost-effective, scalable means of slowing climate change.

The Appalachians play a growing role in preventing the most devastating outcome of climate change: the loss of biodiversity. They contain shady gorges and high, exposed hillsides, running the gamut from wet temperate forests in the south to near-boreal conditions. The mountain range's





north-to-south alignment means that species can migrate as their preferred habitats shift northward or to higher elevation. Current scientific estimates tell us that species must move approximately 11 miles north and 36 feet higher in elevation each decade. The area of highest biodiversity migration runs directly through western Maryland (see adjacent map). Habitats must remain healthy along this critical migration route. However, at this point, 66 percent of these priority resilient and connected lands are unprotected, making them vulnerable to development pressures and further fragmentation.

The Essential Forests Fund aims to increase the amount of protected forest land and the health of those forests. We'll use these funds to:

- Act quickly to protect key tracts when they become available, and ensure that private landowners know we are ready to help them manage their forests to be healthy and resilient.
- Partner with communities and resource managers to increase the acres of forest under management for

old-growth characteristics, to keep forests diverse and healthy.

- Recruit owners of smaller parcels into the Family Forest Carbon Program, which expands their power to enter carbon credit markets and generate income from well-managed forests, while sequestering carbon from the atmosphere.

TNC led a 12-year study with a team of 150 scientists that identified the Appalachians as the *most climate-resilient landscape on the continent*. These mountains retain the ideal mix of topographies, geologies, core habitat, and other characteristics for nature to thrive as the climate changes. We must act now to protect the Allegheny Front—our piece of the Appalachians—and the species that call it home before we lose what we cannot replace. A climate-resilient Appalachian landscape is like an insurance policy for our planet.

To support the Essential Forests Fund, please contact: [EFF@TNC.org](mailto:EFF@TNC.org).



A healthy and protected old growth forest at Cathedral State Park, WV. © Severn Smith/TNC; INSET A map of the Allegheny Front—a priority landscape for The Nature Conservancy. © Michelle Canick/TNC



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LEFT TO RIGHT © Kent Mason; © Jay Fleming; © Kent Mason



**THANKS TO OUR STAFF AND PARTNERS FOR  
 WORKING THROUGH ANOTHER DIFFICULT YEAR.  
 TOGETHER, WE ACHIEVED GREAT THINGS**