

# *Marking Milestones*



PROGRESS IN CONSERVING LAND  
IN THE CHESAPEAKE BAY WATERSHED

# Contents

## THE CHESAPEAKE CONSERVATION PARTNERSHIP

The Chesapeake Conservation Partnership grew out of a one-day meeting in 2009 to discuss ways to enhance land conservation and public access in the Chesapeake watershed. It has become a coalition of more than 50 partner organizations working at every level within the watershed to extend the conservation of culturally and ecologically important landscapes to benefit a vibrant, healthy, and sustainable quality of life for the Chesapeake region. The Partnership provides a forum to advance conservation through collaborative efforts, networking, influencing policy and funding, and sharing best practices. It works to build the financial, scientific, social, and policy capacity to achieve both short-term and long-term landscape conservation goals and to support the partners in carrying out specific land protection actions. For information, visit [www.chesapeakeconservation.org](http://www.chesapeakeconservation.org) or contact [info@chesapeakeconservancy.org](mailto:info@chesapeakeconservancy.org)

## THIS REPORT

This report is one of a number of products developed by the Chesapeake Conservation Partnership. It presents a wide range of information from many Chesapeake partners to illustrate the progress, status, and needs of land conservation in the watershed. While each partner's work in conserving the quality of life in Chesapeake communities is crucial to our shared effort, this report should not be read as implying every partner's endorsement of its entire contents.

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Chesapeake Conservation Partnership  
716 Giddings Avenue, Suite 42  
Annapolis, MD 21401

Covers: A view of the Chesapeake Bay from above  
CHESAPEAKE BAY PROGRAM/WILL PARSON

Opposite: Blackwater National Wildlife Refuge on the Eastern Shore of Maryland is an internationally recognized birding area. More than 170,000 visitors come to Blackwater each year to view wildlife and explore a classic Chesapeake marsh landscape.

© JERRY MONKMAN/ECOPHOTOGRAPHY

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# Introduction



“Here is your country. Cherish these natural wonders, cherish the natural resources, cherish the history and romance as a sacred heritage, for your children and your children’s children.”

— THEODORE ROOSEVELT

## LAND

It’s as important as air but we often take it for granted. Land grows our food, cleans our water, and sometimes even takes our breath away with its beauty. Land anchors life.

The Chesapeake watershed spans 64,000 square miles from Cooperstown, New York, to Virginia Beach, Virginia, and from the Delmarva Peninsula to the mountains of West Virginia, and it is home to more than 18 million people. Land supports values we care about—water quality and supply, climate change resilience, wildlife habitat, recreation opportunity, scenic beauty, historical and cultural heritage, agriculture, economic sustainability, and overall quality of life.

For more than four decades this region has engaged in efforts to ensure the health of the centerpiece of the watershed—the Chesapeake Bay—one of the most extraordinary places in America. It is the first estuary in the nation to be the focus for restoration of an integrated watershed and ecosystem. A series of Chesapeake Bay agreements, the first of which was signed in 1983, now represents the shared commitment of six states, the District of Columbia, US Environmental Protection Agency and other federal agencies, and the Chesapeake Bay Commission to restore the Bay and its watershed.

Protected lands provide space for recreation and renewal—and a place to experience the grandeur of the Potomac Gorge and the Great Falls.

MARYLAND DEPARTMENT OF NATURAL RESOURCES/BOB JULIA



Paddlers enjoying the picturesque rivers and streams that thread through the Chesapeake watershed know the recreational value of protected lands.  
NPS CHESAPEAKE

## 160 Years of Chesapeake Land Conservation

In 1858 a group of visionaries organized to save the iconic Potomac River estate of George Washington. The Mount Vernon Ladies Association recognized the need for preservation, rallied the support, and raised the funds to acquire and restore the deteriorating property. This moment in the Chesapeake region gave birth to the historic preservation movement that continues today.

A century later, a new threat to Mount Vernon emerged—proposed development that would destroy the view across the Potomac so important to the historic plantation’s setting. The Mount Vernon Ladies Association again rallied support—including the US Congress. In 1961, President John F. Kennedy signed legislation establishing Piscataway Park, the first unit of the National Park System created specifically to preserve a scenic viewshed.

But Mount Vernon is just one of countless conservation successes that have been happening here in the Chesapeake region. Unlike western states where vast areas have long been in the public domain, the Chesapeake watershed is dominated by privately owned lands. At the close of the 19th century, very little land in the watershed was permanently protected—just one or two percent, if that. The greater Chesapeake landscape—in all its diversity—has required, and inspired, concerted conservation efforts for well over a century and a half.

In the early 20th century, conservationists worked to protect and restore overwhelmingly deforested lands, forming the basis of what are now extensive state and national forests—magnets for recreation. In the 1950s and 1960s, Supreme Court Justice

William O. Douglas was a vocal advocate for establishing what would become the Chesapeake and Ohio Canal National Historical Park—a significant landscape conservation corridor along the Potomac River, and one that crosses another major corridor, the Appalachian Trail. Leadership at the state level in the watershed spawned innovation that set national examples and stimulated adoption across broader regions. Major state land protection programs were created. Pennsylvania established one of the first state heritage area programs and Maryland followed suit. The intensive development of heritage areas in the region in the late 1980s and 1990s fueled the rapid growth of heritage areas nationwide, including the 3.4 million-acre Journey Through Hallowed Ground and the newly established Susquehanna National Heritage Area, both entirely within the Chesapeake region. At the same time, there has been a surge in the creation and growth of nonprofit land trusts—now numbering more than 170 in the Chesapeake watershed. Like the Mount Vernon Ladies Association decades earlier, these organizations recognize the needs, rally the support, raise the funds, and act to conserve valued lands.

A key to the success of land conservation in the Chesapeake is the long history of collaboration across jurisdictional boundaries. People working in this field are used to regional goal-setting and sharing data and analyses. Partners in conservation know that for a continued record of success, they must be always vigilant for both new threats and opportunities. The story of land conservation in the Chesapeake is still being written.

These agreements have been regularly updated and reflect the best thinking for ensuring a healthy Chesapeake, including land conservation. A 2010 strategy document called for protecting an additional 2 million acres and adding 300 public access sites by 2025.<sup>1</sup> Codified in the 2014 *Chesapeake Bay Watershed Agreement*,<sup>2</sup> these goals spurred action by regional partners in the Chesapeake Bay Program.<sup>3</sup> A coalition of partners—the Chesapeake Conservation Partnership—emerged to lead efforts to achieve the land conservation and public access goals. This coalition now includes more than 50 organizations and agencies engaged in land conservation and related fields.

The Chesapeake Conservation Partnership provides a forum to advance land conservation in the watershed, working across jurisdictional boundaries, using action-oriented and non-bureaucratic collaborative approaches to protect, manage, and restore natural and cultural resources. The end result can take many forms, such as a national or state park, playground, dairy farm, historic battlefield, forestland, wetland, or wildlife sanctuary, among many others.



1. These goals were defined in *The Strategy for Protecting and Restoring the Chesapeake Bay Watershed*, 2010. Available online at <https://bit.ly/2XGYYQ2>
2. *Chesapeake Bay Watershed Agreement, 2014*. Available online at <https://www.epa.gov/sites/production/files/2016-01/documents/attachment1chesapeakebaywatershedagreement.pdf>
3. <https://www.chesapeakebay.net/>

Dignitaries celebrate conservation success at the dedication of Piscataway Park in 1961. Established to “preserve historic vistas,” the new national park also protected a sacred historic Piscataway site, important wildlife habitat, and public access to the Potomac River. Local landowners, conservationists, descendant Indian communities, and other diverse interests rallied to protect the multiple values of the shoreline viewed from Mount Vernon.

ACCOKEEK FOUNDATION



Protected lands provide opportunities for youth to connect with nature, here near Wrightsville, Pennsylvania, through the “Every Kid in a Park” initiative.

NPS CHESAPEAKE

As this report shows, we’ve reached some impressive results, with substantial progress toward achieving the 2025 land conservation and public access goals. What follows is a snapshot of the state of land conservation in the Chesapeake Bay watershed through 2018. Here we celebrate important progress and compelling successes—results that build on well over a century of land conservation in the Chesapeake region and remarkable accomplishments in recent years. We provide summary data showing progress on achieving key goals as well as the status and sources of state and federal funding to support conservation.

Yet, this report also recognizes there is still much more to do. As 2025 approaches, the Chesapeake Bay watershed—and the Earth itself—face challenges unlike any that have come before. There is overwhelming evidence that climate change, loss of natural areas, and dramatic increases in extinction of animal and plant species threaten the systems and landscapes that support the economics, culture, health, and life of humans.

It is time for a renewed and urgent call to action to sustain the places upon which we all depend. This report addresses both short-term and long-term goals and priorities for the Chesapeake Conservation Partnership in advancing Chesapeake land conservation for the future. And it calls for a new milestone in that effort: conserving 30 percent of the watershed by 2030.

## 2018 CONSERVATION SUCCESS STORIES

There are scores, if not hundreds, of individual conservation actions occurring each year in the watershed. Throughout this report you will find highlights of some of the success stories from 2018. They represent the jurisdictions that make up the watershed—Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia, and the District of Columbia—the diversity of our conservation partners, and our conservation goals. Whether large or small, each story represents the work of many caring people, and each is a stepping stone toward 2025 and beyond.

### 2018 SUCCESS STORY



Cookie Davis on her Riverfront Farm  
USFWS/© STEVE DROTTER

### Riverfront Farm Protects Important Habitat

Wrapped on two sides by the beautiful Rappahannock River, the Davis family farm near Port Royal, Virginia, protects 2.3 miles of riparian habitat important to one of the largest concentrations of bald eagles on the East Coast. The wetlands, forests, and shorelines on the property also attract high concentrations of migratory bird species, several of which are considered species of conservation concern, leading to National Audubon Society designation of the Davis property as part of a globally significant Important Bird Area.

But for owner Carolyn “Cookie” Davis, the importance of the easement on the 500-acre property completed in 2018 is more personal. She grew up on the family farm. “It’s beautiful land,” she says. “My father always wanted to keep it the pristine riverland that it is.”

The easement ensures that the verdant riverfront land will never be developed. Not only does the easement uphold the family farm legacy, but it makes the Davis property one of the latest pieces in the effort to stitch together parcels of land to form a corridor of protection along the historically and

culturally significant Rappahannock River—a 195-mile tributary of the Chesapeake. The US Fish and Wildlife Service (USFWS) has helped create easements to the north and south of the Davis farm and manages the nearby Eastern Virginia Rivers National Wildlife Refuge complex. USFWS was instrumental in garnering the easement funds for the Davis property, along with the US Army, which seeks to protect open space near installations, such as nearby Fort A.P. Hill. Virginia Outdoors Foundation will hold the easement and steward the property in perpetuity.

Christina Ryder, a wildlife biologist for USFWS Chesapeake Bay field office, summarizes the importance of easements such as this: “Family farms are a dying tradition here and nationally. Easements are a way to keep the tradition of family farms going while conserving habitat for wildlife and improving water quality of the river.”

For Cookie Davis, “This easement is a way of keeping our family together.”

# Building on Success

Over decades, land conservation in the 64,000-square-mile Chesapeake watershed has produced great treasures, among them:

- More than 4 million acres of state-owned parks, forests, and wildlife management areas
- Over 2.1 million acres of privately owned farm, forest, and historic lands protected through conservation easements
- Hundreds of nature preserves and cultural sites managed by nongovernmental organizations
- Over 1,300 public access sites along rivers and the Chesapeake Bay
- 57 units of the National Park System, 17 national wildlife refuges, and 2 national forests

Permanently protecting these special places is the work of landowners, citizens, nongovernmental organizations, and government agencies, which seek to improve and preserve our quality of life. Donations, philanthropy, private sector funding, and essential state and federal programs facilitate the efforts of these conservationists.

The Cottingham Farm, Easton, Maryland, produces sustainably grown, locally distributed, and certified organic food.  
CHESAPEAKE BAY PROGRAM/KEITH RUTOWSKI

## WHY THIS WORK MATTERS

These treasures have both tangible and intangible values. For example, in 2017 (the most recent year for which there is data), 59 million visitors spent an estimated \$1.7 billion in local gateway towns and cities while visiting National Park Service sites in the Chesapeake Bay watershed. These expenditures supported a total of 24,300 jobs, and almost \$2.4 billion in economic output in the Bay watershed.<sup>4</sup> The overall numbers in the Chesapeake watershed for outdoor recreation are even more significant, with more than \$52 billion dollars being spent annually. Outdoor recreation employs nearly 1 million people at nearly 700 businesses in the six watershed states.<sup>5</sup> In Virginia alone, according to a recent study by Virginia Tech University Pamplin College of Business, state parks stimulated approximately \$338.7 million in total economic activity and supported approximately 3,858 jobs in the commonwealth during 2018.<sup>6</sup>

The intrinsic and economic values of protected lands—sometimes referred to as ecosystem services—are significant and diverse.<sup>7</sup> These are the benefits people derive from ecosystems, such as goods like food, wood, and raw materials; plants, animals, and other organisms that provide essential regulating services such as pollination, prevention of soil erosion, and water purification; and an array of cultural services like recreation. A 2011 study determined that natural resources in Virginia, for example, provided over \$21.8 billion in ecosystem services annually.

4. 2018 National Park Service Visitor Spending Effects: Economic Contributions to Local Communities, States, and the Nation. Natural Resource Report NPS/NRSS/EQD/NRR-2019/1922. Available online at <https://www.nps.gov/subjects/socialscience/vse.htm>
5. Chesapeake Conservancy. "New Data Shows the Power of Outdoor Recreation on the Economy in Chesapeake Bay States," April 18, 2018. <https://chesapeakeconservancy.org/2018/04/18/new-data-shows-power-outdoor-recreation-economy-chesapeake-bay-states/>
6. Magnini, Vincent P. *Virginia State Parks Economic Impact Report 2018*. Available online at <http://www.virginiaparks.org/document/2018-economic-impact-study.pdf>
7. de Brun, Constance T. F. *The Economic Benefits of Land Conservation*. The Trust for Public Land, 2007. Available online at <https://www.tpl.org/economic-benefits-land-conservation-0>

State and federal protected lands generated more than \$5.1 billion of this amount, and the more than 700,000 acres in private land protected through conservation easements generated \$520 million of the total.<sup>8</sup>

Conserved forests protect drinking water and important wildlife and plant species and help control flooding. Protected working farms ensure the availability of local foods; and orchards, vineyards, wineries, crop and vegetable fields, and dairies support related businesses. Conserved habitat sustains wildlife populations, blue crab and rockfish populations, and streams that are clean and full of trout for sport and food. Many of these are culturally and economically valuable. In 2016 for example, 60 million pounds of blue crabs were commercially harvested from the Chesapeake Bay.

Through decades of research scientists have studied the associations between nature and human health. The findings address some of the most urgent human health challenges: stress, obesity, mental health, and loneliness. Medical research increasingly shows how vital time spent outdoors in natural areas is to our physical, emotional, spiritual, and mental health. Likely as a result, studies document that homes near well-maintained natural area parks have higher real estate values. While access to conserved lands may not be the whole remedy for human health challenges, any margin of benefit is important as healthcare represents a major expenditure for areas like the Chesapeake with dense populations.

8. Paul, A. *The Economic Benefits of Natural Goods and Services: A Report for the Piedmont Environmental Council*. Yale School of Forestry and Environmental Studies, 2011. Available online at <https://bit.ly/2Y43XcU>

## Calculating the Economic Value of Farmland Preservation – One County's Example

Lancaster County, Pennsylvania, on the east side of the Susquehanna River, is widely known for its Amish heritage, rich agriculture, and conservation legacy. For decades, the Lancaster County Agricultural Preservation Board and the Lancaster Farmland Trust have worked to preserve the county's farmland. By 2013, more than 100,000 acres were in farmland preservation, the first county in the nation to reach this mark. A 2014 study by Earth Economics examined the value of the county's natural capital and the subset of that which is already protected.\* The study found low- and high-end annual values of the ecosystem services provided by natural resources county-wide: \$222 million (low) and \$1.1 billion (high). Preserved lands provide between \$33 million and \$231 million of these services. The study also calculated the asset value of the county's natural capital. Treated as an asset that provides the same value over 100 years, natural resources have an asset value of \$22 billion (low) to \$114 billion (high). Preserved lands contribute \$3 billion to \$23 billion of that amount.

Between county, state, and federal funding, Lancaster County has invested \$226 million in farmland preservation over several decades. Given that the ecosystem services provided by these lands would be lost permanently if the land had been developed, the study results demonstrate the high return on investment obtained by farmland preservation programs.



Brubaker Farms, Lancaster County, Pennsylvania  
CHESAPEAKE BAY PROGRAM/STEVE DROTTER

\* Schwartz, A., and Kocian, M. *Beyond Food: The Environmental Benefits of Agriculture in Lancaster County, Pennsylvania*. Earth Economics, Tacoma, WA, 2014. Available online at <https://www.earthconomics.org/all-publications/2015/3/1/beyond-food-the-environmental-benefits-of-agriculture-in-lancaster-county-pennsylvania?rq=Aaron%20Schwartz>

## 2018 SUCCESS STORY



Wild and wonderful White Horse Mountain, a new public recreation area in Hampshire County, West Virginia, overlooks the South Branch of the Potomac River for nearly six miles. Its forestlands are home to rare wildflowers and habitats, spectacular vistas, and outdoor fun.

© WILLIAM MACFARLAND, COURTESY OF MACFARLANDPHOTO.NET

### Saving White Horse Mountain

West Virginia's White Horse Mountain is home to black bears, bald eagles, bobcats, white-tailed deer, and rare wildflowers. Almost entirely forested, it overlooks the South Branch of the Potomac River for nearly six miles and contains streams of clean water that eventually reach the Chesapeake. The Potomac Conservancy rescued the mountain from development and, in May 2018, transferred 1,725 forested acres to the state of West Virginia for a new public recreation area.

A conservation easement placed on the property ensures that all management activities safeguard water quality, wildlife habitat, and forest health, and permanently protects White Horse from subdivision, mining, road construction, and other threats.

The conservation easement for White Horse Mountain also protects the adjacent Rock Dome Preserve, which includes three types of rocky habitat rare in West Virginia and globally: sandstone glades, acidic glades, and sandstone cliffs. The 8-acre preserve also supports two types of rare wildflowers: the oldfield toadflax—considered imperiled in West Virginia—and the eastern fameflower—considered critically imperiled. Saving an entire mountain was no easy feat. In the process, globally rare wildflowers and habitat were also saved.



Oneonta Farmers' Market, Otsego County, New York. Protecting productive farms helps ensure permanent, sustainable, "close to home" sources of food.  
CHESAPEAKE BAY PROGRAM/WILL PARSON

Protected lands also preserve historic places that teach us about and connect us with our past. They provide space for recreation and renewal through places to walk, hike, paddle, hunt, and fish. Conservation is, above all, about providing for the future. People care about future generations—their children and grandchildren—having access to green spaces to recreate, clean drinking water, healthy food, a safe climate, the chance to see wildlife, a sense of shared history, and overall quality of life.

But these values are at risk if we don't make land conservation an even higher, more urgent priority. An ever-growing watershed population of 18 million requires more conserved land, not less. More development and fewer forests exacerbate air pollution, and lead streams and rivers to overflow their banks, inundating towns and cities. Farms lost to development rarely supply local food again. Science documents the extinctions of more species and huge decreases in wildlife abundance from human impacts, threatening whole ecosystems. Temperatures are rising and extreme weather events are increasing, and we know that restoring and conserving more forests and healthy soils is one of the easiest and cheapest ways of combating climate change.

With every passing month, there is mounting concern about the need for protecting more of the vital ecosystems on which our quality of life depends. Edward O. Wilson's Pulitzer-Prize winning book *Half Earth* started serious discussions in 2016 about protecting half the planet to maintain biodiversity.<sup>9</sup> Study after study—from climate change impacts to crashing insect populations—points to a need for urgency. A landmark report released in May 2019—the most comprehensive assessment ever of the state of Earth's biodiversity and natural systems—warns that one million species are threatened with extinction, "eroding the very foundations of our economies, livelihoods, food security, health, and

9. Wilson, Edward O. *Half-Earth: Our Planet's Fight for Life*. New York: W.W. Norton, 2016. Also see <https://eowilsonfoundation.org/half-earth-our-planet-s-fight-for-life/>

quality of life worldwide." The report also makes clear it is not too late to make a difference, "but only if we start now at every level from local to global."<sup>10</sup>

A separate 2019 study by a group of scientists highlights land conservation as one of three essential cornerstones of the effort to limit increases in global temperatures, along with expanding use of renewable energy and cutting fossil fuel burning. The authors call for protecting 30 percent of the planet by 2030 and another 20 percent by 2050 to avoid catastrophic climate change, conserve species, and secure essential ecosystem services, and they set out the scientific rationale and approach for doing so. The top priority is to protect and restore intact forests and other natural areas to limit resource extraction and conversion to developed uses. This will preserve natural carbon sinks, hedge against the unraveling of ecosystems, and lessen the predicted extinction of vast numbers of plant and animal species—all of which are critical to sustaining the quality of human life on earth.<sup>11</sup>

These studies reaffirm and reinforce the vital importance of local and regional conservation priorities already set in the Chesapeake watershed. We are well positioned for sustaining and increasing land conservation, with a rich legacy of local and state leadership, effective programs, and conservation results from which to build. The Chesapeake Conservation Partnership is dedicated to a vision of a bright future for our landscape. Achieving that requires collaborative action to conserve the cultural and ecological places that benefit people, economies, and nature throughout the watershed.

Our goals are ambitious, yet realistic, attainable, and shared among our coalition partners. We all must accelerate our efforts, dedicate new resources, and engage larger and more diverse communities in this effort. There is no time to waste. This report shows how far we have come and also how very far we have yet to go.

10. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. *Global Assessment Report on Biodiversity and Ecosystem Services*. Draft release May 31, 2019. Available online at <https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services>
11. Dinerstein, E., et al. "A Global Deal for Nature: Guiding Principles, Milestones, and Targets." *Science Advances*, Vol. 5, no. 4, April 2019. Available online at <https://advances.sciencemag.org/content/5/4/eaaw2869>

## 2018 SUCCESS STORY

### New Wildlife Management Area for Maryland's Upper Eastern Shore

In 2018, Maryland Department of Natural Resources (DNR) acquired 1,172 acres in Queen Anne's County on the Upper Eastern Shore of the Chesapeake. The property near Sudlersville will be a wildlife management area to permanently protect agricultural fields, mature forested uplands, and stream corridors that sustain high water quality along a tributary to the Chester River. The acquisition will also protect a high diversity of flora and fauna in the upland areas to provide essential habitat for migratory songbirds, pollinators, and small mammals.

Former Maryland Secretary of Natural Resources Mark Belton describes this as "an exciting win for both conservation advocates as well as outdoor enthusiasts. This large and incredibly beautiful property...will protect ecologically sensitive habitat while providing the public an excellent location for outdoor recreation, especially hunting or trapping."

DNR utilized Maryland's Program Open Space funds and collaborated with the Eastern Shore Land Conservancy on the acquisition. "This farm has been one of our highest priorities for conservation for more than two decades," Conservancy President Rob Etgen said. "It includes a huge area of prime farmland, and the streams are the largest remaining chunk of unprotected habitat for several endangered wildlife species."

The property known locally as Ben Lee Farm on Maryland's Eastern Shore will provide conservation, habitat, and recreation opportunities as a new wildlife management area.  
DOTTY HOLCOMB DOHERTY



# Protection Progress Report

In the near term, the Chesapeake Conservation Partnership works collaboratively to achieve two specific goals by 2025 (starting from a 2010 baseline):

- Protect an additional 2 million acres of land throughout the watershed—currently identified as high-conservation priorities at the federal, state, or local level—including 225,000 acres of wetlands and 695,000 acres of forestland of highest value for maintaining water quality.
- Add 300 new public access sites, with a strong emphasis on providing opportunities for boating, swimming, and fishing, where feasible.

These goals are set through the *Chesapeake Bay Watershed Agreement*, signed in 2014 by the governors of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia, the mayor of the District of Columbia, the Chesapeake Bay Commission, and the federal government.

Here we report the latest update of progress toward these goals.

The current goal of protecting an additional 2 million acres by 2025 includes specific objectives for protecting wetlands and forests of highest value for maintaining water quality.

NICHOLAS A. TONELLI



Agriculture, a major land use and economic factor in the Chesapeake region, has long been a focal point for land protection funding.  
NICHOLAS A. TONELLI

“Protected lands” is defined by the Chesapeake Bay Program as lands permanently protected from development, whether by purchase or donation, through a perpetual conservation or open space easement, or fee ownership for their cultural, historical, ecological, or agricultural value. This definition includes non-traditional conservation mechanisms, including transfer of development rights programs that require a conservation easement for the “sending” property and purchase of development rights programs. Lands protected through easements and purchase of development rights typically remain in private ownership. Protected lands include: county, town, city, state, and federal parks; designated open space and recreational land; publicly owned forests and wetlands; privately owned working farms or forests with conservation easements; historically important lands, such as protected battlefields, colonial towns, and farms; military-owned parks and recreational areas.

### PROTECTING AN ADDITIONAL 2 MILLION ACRES BY 2025:

Based on 2018 data, 1,358,456 acres of land in the Chesapeake Bay watershed have been permanently protected from development since 2010. This marks an achievement of nearly 68 percent of the land conservation goal adopted in the *Chesapeake Bay Watershed Agreement* and brings the total amount of protected land in the watershed to 9.16 million acres.

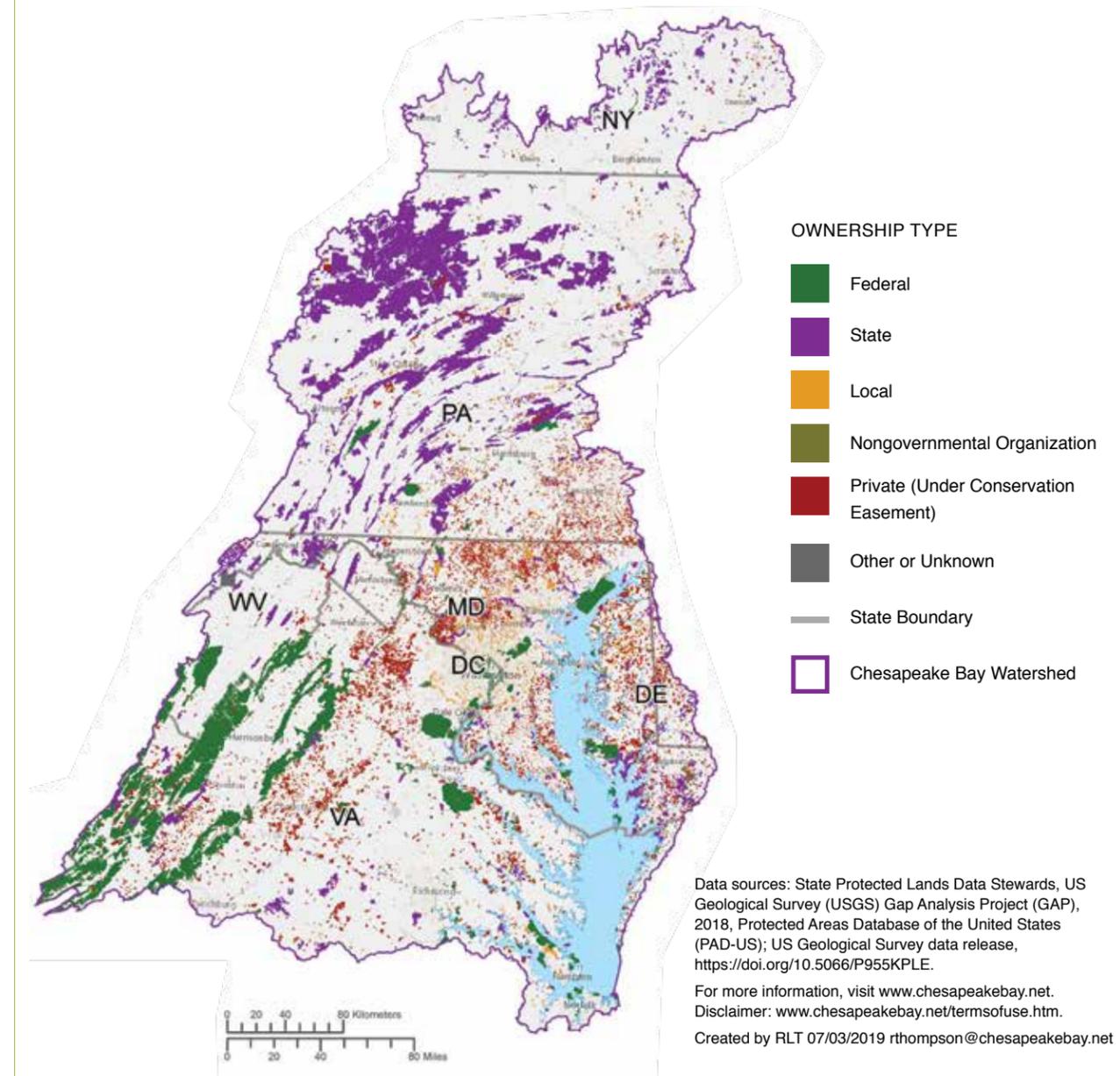
Watershed-wide, protected lands have increased 17 percent since 2010, an average of 169,800 acres each year. Some increases in acreage can be attributed to improvements in data collection—for instance, by reporting previously protected but newly digitized, corrected, or refined parcels of land. However, other increases can be attributed to newly protected parcels of land. Data indicate a consistent increased trend in protected lands in the watershed over time.

The 9.16 million acres of protected lands in the watershed account for just over 22 percent of the total land in the region. In contrast, about 13 percent of the watershed is developed in cities, towns, homes, roads, businesses, and industry. Thus, about 65 percent, or two-thirds, of the watershed consists of unprotected forests, farms, habitat, and rural landscapes.

Of protected lands, 3.5 million acres are in Pennsylvania; almost 3 million acres in Virginia; almost 1.8 million acres in Maryland; over 400,000 acres in West Virginia; 327,000 acres in New York; over 108,000 acres in Delaware; and about 10,000 acres in the District of Columbia.

State agencies are the largest entity contributing to land protection. They own approximately 44 percent (over 4 million acres) of the protected acres in the watershed. Watershed-wide, the federal government holds approximately 25 percent (over 2.3

### PROTECTED LANDS IN THE CHESAPEAKE BAY WATERSHED 2018



#### Protected Land Ownership (2018)

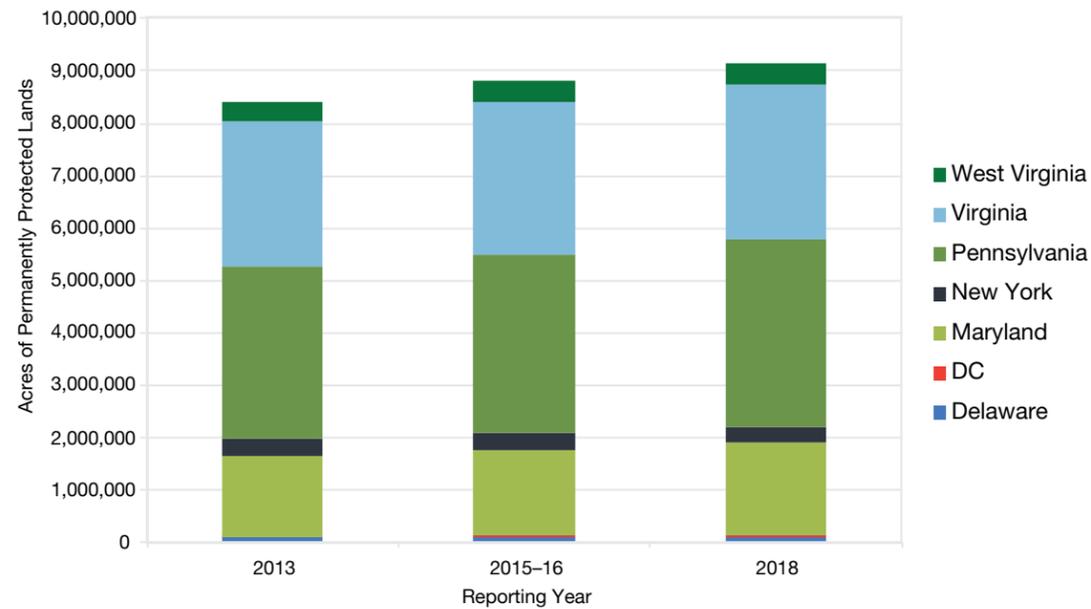
- State: 4,065,638
- Federal: 2,309,248
- Private: 2,105,727
- Local Government: 415,605
- Nongovernmental Organization: 133,826
- Other: 128,412

#### Protected Lands by Jurisdiction (2018)

- DE: 108,522
- DC: 10,292
- MD: 1,773,792
- NY: 327,281
- PA: 3,550,179
- VA: 2,987,078
- WV: 401,312

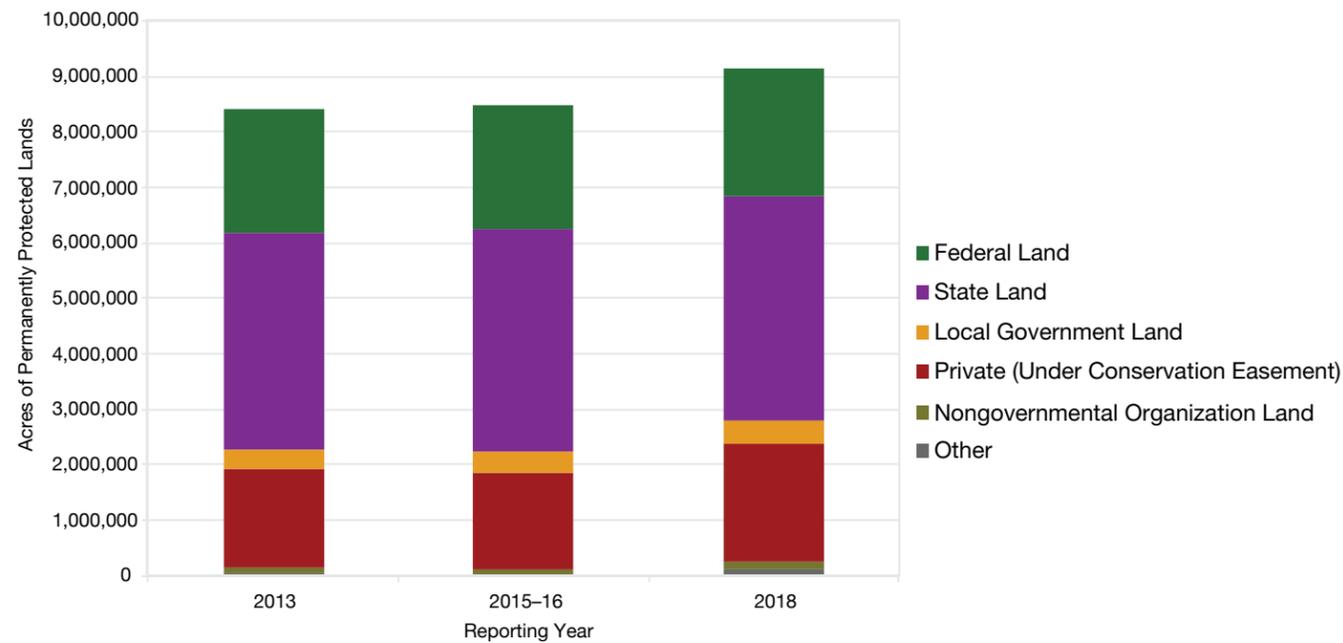
This map and others referenced in this chapter are part of the *Chesapeake Conservation Atlas* which may be found at: <https://www.chesapeakeconservation.org/index.php/our-work/chesapeake-conservation-atlas/>

## ACRES OF PROTECTED LAND IN THE CHESAPEAKE BAY WATERSHED BY JURISDICTION



CHESAPEAKE BAY PROGRAM/RENEE THOMPSON, US GEOLOGICAL SURVEY

## PROTECTED LANDS IN THE CHESAPEAKE BAY WATERSHED BY OWNERSHIP TYPE



CHESAPEAKE BAY PROGRAM/RENEE THOMPSON, US GEOLOGICAL SURVEY



Where feasible, launches at new public access sites are designed for universal accessibility, such as this kayak/canoe launch system at Great Bridge Lock Park, Virginia.

NPS CHESAPEAKE

million acres) of the protected acres. About 23 percent of protected acres (over 2.1 million acres) are held by private landowners under conservation easements. Nongovernmental organizations, local governments, and other entities have also been extremely active in land conservation and are critical partners in land protection efforts.

### ADDING 300 PUBLIC ACCESS SITES BY 2025:

From 2010 through 2018, 176 new boat ramps, fishing piers, and other public access sites were opened on major rivers, streams, and the Chesapeake Bay. This marks a 59 percent achievement of the goal to add 300 new access sites to the watershed by 2025 and brings the total number of public access sites in the region to 1,315.

In 2018, 23 new sites were added, including 12 in Maryland, 7 in Virginia, and 4 in Pennsylvania. This is consistent with the pattern of the past several years. At least 10 of these new sites meet standards for universal accessibility under the Americans with Disabilities Act.

Public access to open space and waterways improves public health and quality of life. People rely on outdoor places to exercise, relax, and recharge their spirits. Time spent outdoors can strengthen family bonds and nurture active, creative children. And access to the water builds personal connections with places that have shaped life in the region, boosting tourism economies and creating citizen stewards who care for local resources and engage in conservation efforts.

## 2018 SUCCESS STORY



Purchase of "Fortunes Retreat" Farm permanently protects part of one of the "most important ecological areas on the East Coast."

MARYLAND AGRICULTURAL LAND PRESERVATION FOUNDATION

### Maryland Conservation Easement Preserves Farmlands and Forests

The Maryland Agricultural Land Preservation Foundation (MALPF) purchased a conservation easement on 156 acres in Charles County within the Zekiah Swamp watershed to finalize the permanent protection of the entire farm known as "Fortunes Retreat," consisting of 377 acres. The easement protects productive agricultural soils and the vast woodland of Zekiah Swamp Run, the largest hardwood swamp forest in Maryland. Zekiah is considered by the Smithsonian Institution to be one of the "most important ecological areas on the East Coast." Zekiah is extraordinarily rich in historical sites and has strong associations with native Piscataway culture, the John Wilkes Booth escape route through Southern Maryland, and German-American colonization in the early 20th century.

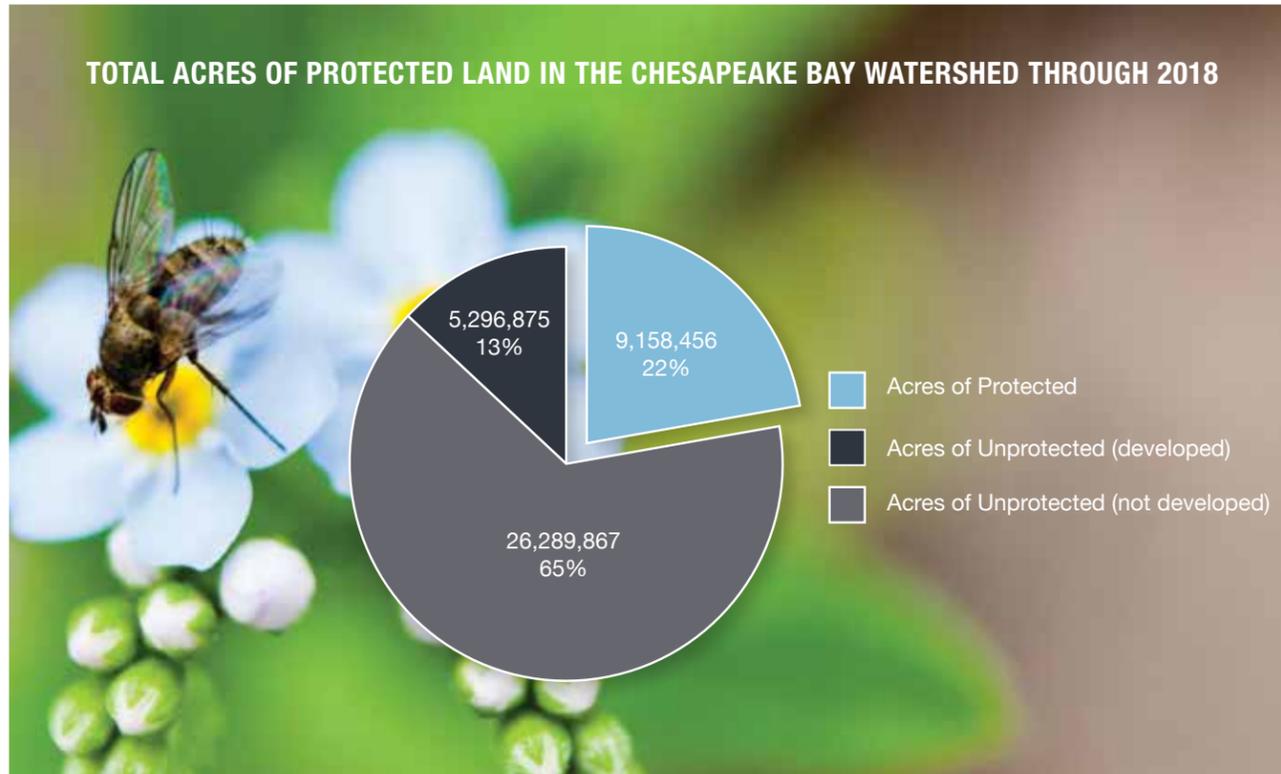


PHOTO: CHESAPEAKE BAY PROGRAM/WILL PARSON

#### ACHIEVING LONG-TERM CONSERVATION GOALS:

In 2016 the Chesapeake Conservation Partnership identified long-term landscape conservation goals for achieving a vision of a vibrant, healthy, and sustainable Chesapeake region. These goals encompass values that have already been documented through many public processes—from strategic and/or comprehensive plans to published studies and reports, to formal designations by multiple levels of government. The goals are organized around five broad categories—Farms, Forests, Habitat, Heritage, and Human Health—that encompass landscape level land protection concerns. They recognize that all is interconnected—a vibrant economy, strong communities, healthy people, working farms and forests, vital habitat for native wildlife, clean water, our shared heritage, recreation, and quality of life. These are not disconnected parts, but parts of the whole, inextricably linked. In fact, in many places on the land multiple values overlap—an acre of forest can also be an acre of habitat. Such multiple values bring those motivated by diverse interests together to work toward land conservation.

Progress towards achieving four of these goals is summarized below. The Partnership is still developing analyses for tracking progress towards the Human Health goal.

- **Farms:** Protect the Chesapeake watershed’s productive farms and prime farmland from conversion and secure space for urban farming to ensure permanent, sustainable, “close to home” sources of food for the region’s population and to support the economic and cultural value of working farms and farmers.

Analysis identifies 20,547,229 acres of important farmland for conservation, about 50 percent of the watershed. About one-third (33 percent) of this land is currently in production. The rest is covered by either forest, shrubs, or herbaceous vegetation. Fourteen percent of this important farmland (2,887,949 acres) is permanently protected. This represents an increase of 187,474 protected acres since 2016.

- **Forests:** Protect the Chesapeake watershed’s most ecologically and economically valuable forestland from conversion—headwater and riparian forests, large forest blocks, woodlots providing multiple values, and forests conducive to timber harvests.

Mapping identifies 21,283,119 acres of important forestland for conservation, about 52 percent of the Chesapeake watershed.<sup>12</sup> Just over 7,115,530 acres (33 percent) of this forestland is permanently conserved. This represents an increase of 185,818 acres since 2016.

- **Habitat:** Protect a network of large natural areas and corridors sufficient to allow nature to respond to a changing climate and land development and to support thriving populations of native wildlife, including migratory birds, pollinators, fish, and plants to keep common species common and to sustain at-risk species.

Mapping identifies 18,045,776 acres of important habitat for conservation, about 44 percent of the Chesapeake watershed. Just over 6,193,717 acres (34 percent) of this habitat is permanently conserved. This represents an increase of 74,312 acres since 2016.

#### Keeping Forests as Forests along the Chenango

New York’s Department of Environmental Conservation acquired over 30 acres to conserve it as forestland, while helping to buffer the Canasawota watershed a few miles from its confluence with the Chenango River. Keeping forests as forests is one of the primary factors in mitigating climate change by storing carbon in the trees and their products. This addition will enable watershed protection and provide for recreation and timber management.

12. As noted above, some lands are important for multiple reasons. An acre of important forest can also be identified as important habitat, or as having important scenic value. Thus, the individually mapped goals often overlap, meaning the sum total of all lands identified for all four goals will exceed 100 percent.

#### 2018 SUCCESS STORY



Newly acquired property will be added to an adjacent nature preserve and protect exceptional brook trout habitat.

FINGER LAKES LAND TRUST

#### Brook Trout Habitat to Improve in New York’s Owego Creek Watershed

In 2018, the Finger Lakes Land Trust (FLLT) negotiated purchase of 25 acres, including more than 5,500 feet of stream bank on the West Branch of Owego Creek, one of the best brook trout streams in FLLT’s service area. The acquisition was made possible, in part, with funding from Tompkins County and from the Upper Susquehanna Coalition. The property will be added to an adjacent nature preserve, owned and managed by FLLT, which protects a large portion of a headwater wetland complex that feeds into the West Branch of Owego Creek through the newly acquired parcel.

The new property includes floodplain wetlands and roadside meadows recognized for their aesthetic value in a county-wide inventory of scenic resources. In collaboration with the Upper Susquehanna Coalition and local volunteers, FLLT will improve habitat and water quality by restoring both riparian buffer and upland habitat in the coming years.

The project is the latest of 11 undertaken by FLLT in the Owego Creek watershed where Finger Lakes Land Trust has already protected nearly 850 acres.

→ **Heritage:** Protect the treasured landscapes of our collective heritage from development that would alter the scenery and character that conveys their importance—along designated trails and scenic rivers and byways, at parks, and throughout state and national heritage areas, valued cultural landscapes, and historic districts.

Maps identify 25,223,598 acres of land associated with designated important heritage resources, about 62 percent of the Chesapeake watershed. Just over 8,066,588 acres (34 percent) of this land is permanently conserved. This represents an increase of 179,636 acres since 2016.

## 2018 SUCCESS STORY



The Arentz family of Adams County, Pennsylvania, celebrates 25 years of farmland preservation.

LOY ELLIOTT

### Shared Interest in Family Farm Operations

Arentz Hay and Grain is a family farm operation outside of Littlestown, Pennsylvania, owned by Jean Arentz and her three sons, Jay, Craig, and Rodney, and their families. The operation consists of over 3,500 acres of prime farm soils, both owned and rented.

In 2018, the Arentz family added to their farmland preservation total by permanently preserving an additional 100 acres. They now own over 750 acres of land preserved through the Adams County Farmland Preservation Program. This is one of more than 185 farms and 14,696 acres conserved statewide in 2018 with support from Pennsylvania's Farmland Preservation Program.

The newly protected land supports crops of corn, soybeans, and small grains, farmed to minimize soil loss and sedimentation of waterways. The family uses "no till" and "cross slope farming" to reduce erosion. Plus, all areas of concentrated water flow are planted in permanent vegetation.

The Arentz family originally purchased the newly protected land from Hanover Shoe Farms, Inc., the largest standard-bred racehorse breeding facility in the world. Interestingly, the sale was negotiated in hay and straw. Literally, the mortgage is paid in feed and bedding for the horses. Hanover Shoe Farms purchases about 90 percent of all their grain, straw, and hay from the Arentz family and other local farmers, helping to sustain the agricultural economy in Adams and York counties. Russell Williams, president of Hanover Shoe Farms, says that the local soils "grow great horses." The family business owns 2,786 acres in Adams County, and in 2018, Williams also took the first steps to permanently protect this famous pastureland by preserving 100 acres. He hopes to continue working with farmland preservation in the future.

The Arentz Family and Hanover Shoe Farms arrangement is just one example of local relationships in two different agricultural sectors working together.

## 2018 SUCCESS STORY



Malvern Hill Farm, highly sought for its multiple scenic, historical, and recreational values, is now permanently protected for public use.

CAPITAL REGION LAND CONSERVANCY

### Prized Malvern Hill Farm Includes Access to James River

With a rich history dating to the late 17th century, Malvern Hill Farm, near Richmond, Virginia, is the only documented place in the United States that has seen US troop activity during three major military conflicts on American soil. The location was the base for the Marquis de Lafayette during the summer of 1781 and an encampment for the Virginia militia during the War of 1812. But it is the deadly clash of Union and Confederate forces on July 1, 1862, when the entire property lay behind the Union Army's front infantry line, that is forever tied to the farm's name. The Battle of Malvern Hill ended with more than 7,750 casualties. In February 2018, the Capital Region Land Conservancy purchased the 871-acre farm from the Ferguson family, which had owned it for 80 years. The property had been on the Civil War Sites Advisory Commission's list of top ten most threatened battlefields since 1993 and had long been a National Park Service priority for addition to the Richmond National Battlefield Park. The US Department of Agriculture's Natural Resources Conservation Service identifies nearly 400 acres as prime farmland and more than 150 acres as "farmland of statewide significance." Conservation partners also recognized the potential for publicly accessible walking and biking trails and canoe and kayak access to the James River. Nearly two miles of the Virginia Capital Trail pass by or traverse Malvern Hill Farm.

To acquire the property Capital Region Land Conservancy partnered with the National Park Service, Virginia Department of Conservation and Recreation, Virginia Department of Historic Resources, Civil War Trust, Henrico County, and the James River Association. The Conservancy has placed a conservation easement on nearly half of Malvern Hill Farm and transferred roughly 420 acres to Henrico County for a future public park with passive recreation and historical interpretation. The Conservancy also transferred 12 acres to the James River Association that will provide kayak and canoe access on Turkey Island Creek, connecting paddlers to the James River, the Captain John Smith Chesapeake National Historic Trail, and Presquile National Wildlife Refuge. Nearly 400 acres will be added to Richmond National Battlefield Park.

Malvern Hill represents the multiple attributes of the Chesapeake's most valued lands. As Clyde Cristman, director of Virginia's Department of Conservation and Recreation, noted: "In this singular project, we celebrate the preservation of working farms, historic sites, the Chesapeake Bay watershed, and public access to the outdoors." Henrico County Supervisor Tyrone Nelson summed up its importance locally: "All who treasure Malvern Hill Farm can now rest assured that its future is secure, and residents and visitors alike can look forward to enjoying the farm's natural beauty, history, and new recreational access."

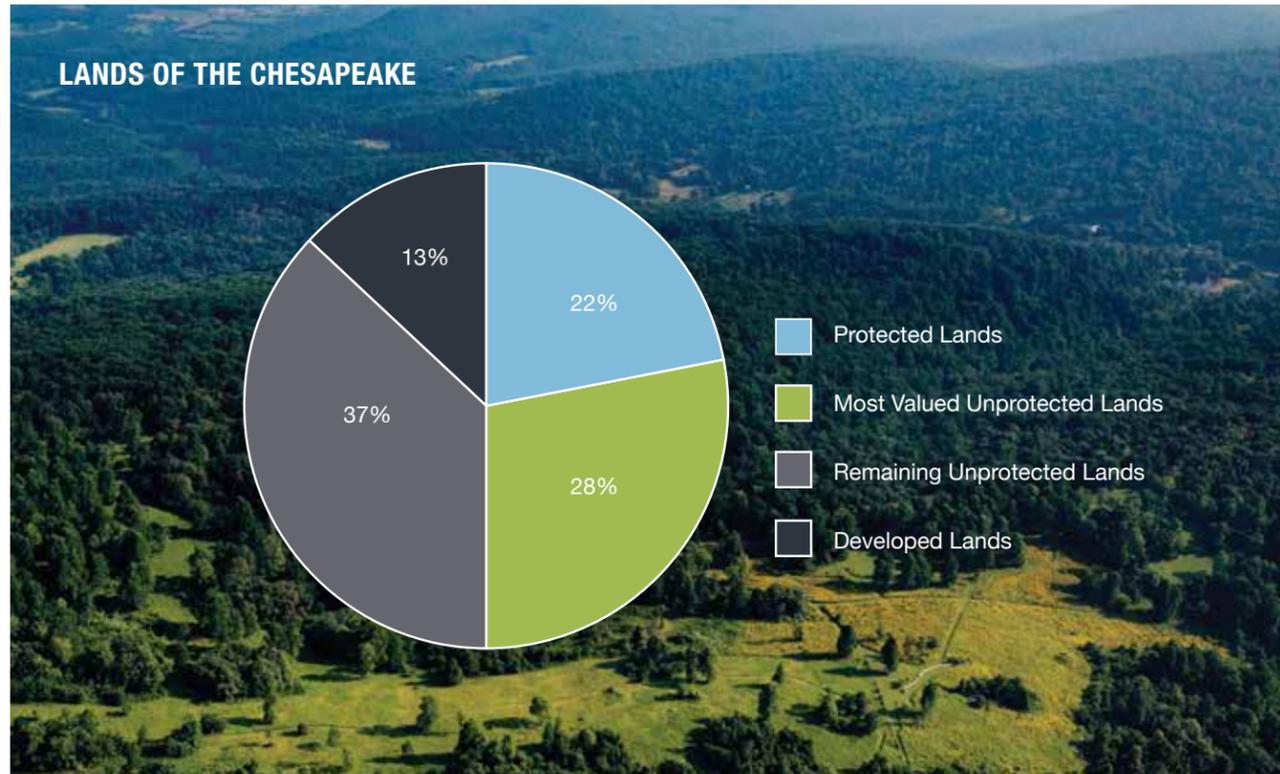


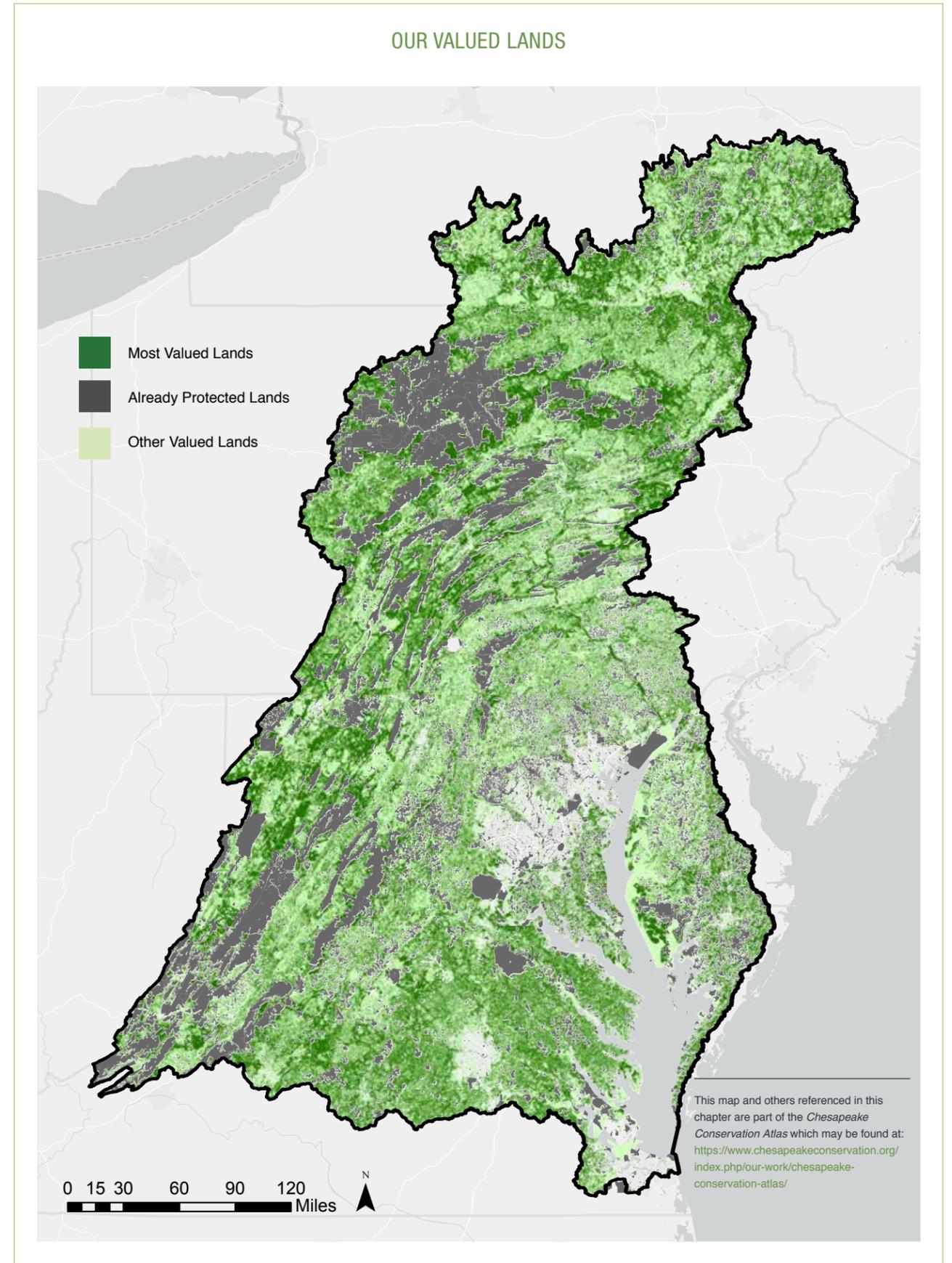
PHOTO: CHESAPEAKE BAY PROGRAM/WILL PARSON

#### MOST VALUED LANDS:

The Partnership’s valued lands map (*facing page*) represents a composite of values from the Farms, Forests, Habitat, and Heritage goals. It depicts the full range of places we collectively value. A portion of these lands—9.16 million acres or just over 22 percent of the Chesapeake watershed—are permanently conserved, including 223,923 acres of most valued lands that have been protected since 2016.

But another 11.3 million acres (or about 28 percent of the watershed) represent our most valued lands—places with the highest amount of overlapping farm, forest, habitat, and/or heritage values—that are currently unprotected. They include: a combination of forests that support our water supplies and climate and help control flooding; important wildlife habitat, much of it on those forested lands; working farms for food and supporting the economy—orchards, vineyards, wineries, crop and vegetable fields, dairies, and more, plus the businesses they support; and lands that represent our cultural and natural heritage—the places we consider important to who we are as a people and that provide us with recreation, hunting, fishing, tourism, and other vital economic sectors.

These most valued lands, along with what is already protected represent half the Chesapeake watershed. Conserving that half presents a daunting, but achievable challenge as we move forward.



# Conservation Funding

“*Conservation investment is an expression of our faith in the future of natural systems that are essential to life on earth.*”

— JAMES LEVITT, *FROM WALDEN TO WALL STREET*

One of the biggest factors influencing the rate of land conservation is the funding and financing available to facilitate it. Land conservation is supported through a wide range of private sector, philanthropic, local, state, and federal sources, programs, and initiatives. The picture is so multi-faceted it is difficult for any individual or organization to have a full grasp of its many elements, let alone the opportunities or limitations that may be associated with them.

The Chesapeake Conservation Partnership seeks to expand the menu of financing options for land protection, while also sustaining current funding. Understanding the ingredients of the existing menu is key to both aspects. The 2010 Chesapeake Bay Commission and Chesapeake Conservancy report *Conserving Chesapeake Landscapes*<sup>13</sup> provided an essential overview of state and federal land protection funding sources. Nine years later, in fiscal year 2019, there have been significant changes in programs and funding levels as well as the addition of other funding sources, and a new inventory of conservation financing is needed.

There is strong and consistent public support for federal, state, and local government funding for land conservation. Continued support for these programs during fluctuating budget surplus or deficit situations is vital to the future of our landscape. But these programs alone—and the brave political leadership it requires to fund them—are not enough to achieve our landscape-scale conservation goals. We need more. We need to think differently, creatively, and to leverage new opportunities to finance our mission.

The Partnership is developing what it hopes will become a dynamic catalog of land conservation financing for the watershed. We have assembled up-to-date information on state and federal public sector funding sources. Work on other funding sectors will continue over the coming year. Herein is a summary of the status of major state and federal funding programs that support land conservation—the first overview of its kind for the watershed since 2010.

13. *Conserving Chesapeake Landscapes: Protecting Our Investments, Securing Future Progress*, 2010. Available online at <http://www.chesbay.us/Publications/Conserving-Chesapeake-Landscapes.pdf>

Protecting the headwaters of rivers flowing to the Chesapeake Bay, such as the Rapidan River here in the Virginia Piedmont, helps ensure clean water.  
CHESAPEAKE BAY PROGRAM/WILL PARSON



Conserved forests protect drinking water and important wildlife and plant species, help control flooding, and offer countless opportunities for recreation.

CHESAPEAKE BAY PROGRAM/WILL PARSON

### STATE LAND CONSERVATION FINANCING:

Chesapeake watershed states have long been regarded as national leaders in creating successful land conservation programs. Here we summarize funding levels for all major state-administered programs supporting land protection. Note that the programs and funding levels are statewide within each state and do not necessarily reflect the amount of funds spent within the Chesapeake watershed portion of the state.

As the table of statewide funding shows (*See pages 30–31*), land conservation financing by the six watershed states will exceed \$300 million in fiscal year (FY) 2019. Each state has multiple land protection funding programs. Brief descriptions of each program and how it is financed are provided in the Appendix. The financing mechanisms vary, from dedicated sources such as a portion of realty transfer taxes (including some programs in Delaware, Maryland, New York, Pennsylvania, and West Virginia), to income tax credits (Virginia), cigarette taxes, landfill tipping fees, or oil and gas leases (Pennsylvania), or bonded capital (New York).

Generally, advocates for state land protection funding regularly need to make the case to governors and legislators of the importance of sustaining or growing these programs. Beyond total funding levels, the stability and predictability of funding in these programs is important for the long-term achievement of land conservation goals, since they provide a level of reliability for landowners contemplating voluntary options for the future of their properties as well as for the land trusts and local, state, and federal program staff who are building long-term relationships with these landowners.

### Funding levels and trends in these programs vary significantly by state:



**Delaware** is seeing a substantial increase (six-fold) in FY 2019 over recent years. This FY 2019 increase is the return to full funding of the state's open space, agricultural lands preservation, forestland preservation, and young farmers farmland preservation programs after substantial reductions following the recession of 2008–2009.

**Maryland's** land protection funding has more than doubled in FY 2019 from 2017 levels. Maryland also has the highest overall level of land protection funding among the six watershed states. The FY 2019 increase represents the full funding of Program Open Space (all the revenue from the state transfer tax on real estate transactions) based on legislation enacted during the 2016 General Assembly session.

**New York's** Environmental Protection Fund levels for land protection have been fairly consistent over several years, but in 2017, the legislature approved a new investment in source water protection through \$110 million in bonded capital, to be spent over five years at roughly \$22 million per year.

**Pennsylvania's** farmland preservation program, long nationally recognized, continues to have the highest annual investment in land protection among the commonwealth's programs, at \$38 million in FY 2019.

**Virginia's** largest financing source is through the Land Preservation Tax Credit for conservation easements which is capped at \$75 million per year, though actual levels vary by what is submitted from landowners. Tax credit levels for 2019 are not yet available, but 2018 submitted credits totaled \$64.7 million, down slightly from 2017. Appropriated funds for acquisition are down in FY 2019. The commonwealth saw significant funding allocated in restricted funds in 2018 as a result of mitigation settlements.<sup>14</sup>

**West Virginia's** investments in land protection are fairly consistent over the past several years, spread across several programs, totaling \$6.28 million in FY 2018.

14. "Mitigation funding" results from agreements on how to compensate for or mitigate impacts to natural and cultural resources from permitted development projects. Examples of these impacts include: destruction or fragmentation of forestland or wetlands, loss of fish or wildlife habitat, or degradation of historic properties or scenic resources. Mitigation funds are sometimes allocated to land protection, conserving land in one location to make up for the loss of resources elsewhere. While these funds have value and can protect important resources, they are fundamentally just replacing lost or harmed resources, not adding to the overall role of proactive conservation. These funds should not be viewed as substitutes for regular, proactive land conservation programs.

STATEWIDE FUNDING LEVELS FOR STATE PROGRAMS SUPPORTING LAND PROTECTION

Program	FY2016		FY2017		FY2018		FY2019	
	Overall Fund	Portion Allocated to Land Protection	Overall Fund	Portion Allocated to Land Protection	Overall Fund	Portion Allocated to Land Protection	Overall Fund	Portion Allocated to Land Protection
<b>DELAWARE<sup>1</sup></b>								
Land Protection Act (Open Space Program)	0	0	0	0	0	0	9,000,000	9,000,000
Agricultural Lands Preservation Program	2,600,000	2,600,000	1,900,000	1,900,000	2,500,000	2,500,000	6,000,000	6,000,000
Forestland Preservation Program	0	0	0	0	0	0	1,000,000	1,000,000
Young Farmers Program	400,000	400,000	600,000	600,000	500,000	500,000	3,000,000	3,000,000
<b>TOTAL DELAWARE</b>	<b>3,000,000</b>	<b>3,000,000</b>	<b>2,500,000</b>	<b>2,500,000</b>	<b>3,000,000</b>	<b>3,000,000</b>	<b>19,000,000</b>	<b>19,000,000</b>
<b>MARYLAND<sup>2</sup></b>								
Rural Legacy	10,082,000	10,082,000	17,663,000	17,663,000	22,913,000	22,913,000	25,017,000	25,017,000
Program Open Space Stateside	21,602,000	21,602,000	13,868,000	13,868,000	27,976,000	27,976,000	48,532,000	48,532,000
Program Open Space Local	30,134,000	12,300,000	21,690,000	8,900,000	37,213,000	15,200,000	53,287,000	22,500,000
Maryland Agricultural Land Preservation Foundation (MALPF)	26,100,000	26,100,000	21,200,000	21,200,000	32,900,000	32,900,000	48,900,000	48,900,000
<b>TOTAL MARYLAND</b>	<b>87,918,000</b>	<b>70,084,000</b>	<b>74,421,000</b>	<b>61,631,000</b>	<b>121,002,000</b>	<b>98,989,000</b>	<b>175,736,000</b>	<b>144,949,000</b>
<b>NEW YORK<sup>3</sup></b>								
Environmental Protection Fund								
● Open Space Program	26,550,000	25,300,000	40,000,000	38,500,000	36,349,000	35,349,000	35,000,000	34,000,000
● Agricultural and Farmland Protection Program	15,000,000	15,000,000	20,000,000	19,930,000	20,000,000	19,913,000	18,000,000	17,910,000
● Parks, Recreation and Historic Preservation (Municipal Parks) <sup>j</sup>	15,750,000	N/A	20,000,000	N/A	20,000,000	N/A	19,500,000	N/A
Water Infrastructure Improvement Act								
● Source Water Protection <sup>i</sup>	0	0	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000
<b>TOTAL NEW YORK</b>	<b>57,300,000</b>	<b>40,300,000</b>	<b>102,000,000</b>	<b>80,430,000</b>	<b>98,349,000</b>	<b>77,262,000</b>	<b>94,500,000</b>	<b>73,910,000</b>
<b>PENNSYLVANIA</b>								
Keystone Recreation, Park and Conservation Fund (DCNR) <sup>4, iii</sup>								
● Park and Forest Facility Rehabilitation	26,801,000	478,514	29,786,000	0	27,777,000	2,500,000	24,803,000	0
● Grants for Land Trusts	8,934,000	8,489,000	9,929,000	9,500,000	9,259,000	8,814,000	8,268,000	7,854,600
● Grants for Local Recreation <sup>iv</sup>	22,334,000	2,500,000	24,823,000	2,600,000	23,148,000	2,700,000	20,669,000	N/A
Oil and Gas Lease Fund (DCNR allocation)	50,000,000	500,000	61,291,000	0	48,798,000	2,157,000	69,774,000	0
Environmental Stewardship Fund (DCNR allocation)	16,714,000	1,433,460	20,800,000	758,500	15,823,000	343,000	15,227,000	0

**Notes:**  
 Funding levels represent statewide amounts, not amounts dedicated to the Chesapeake Bay watershed.  
 Table includes state funds only. It does not include any county, federal, or other matching funds which may be used in association with listed programs.  
 N/A indicates the funding level for that year/program was not available.

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| <ol style="list-style-type: none"> <li>1. Delaware Land Protection Act data provided by Delaware Department of Natural Resources and Environmental Control. Data for other three programs provided by Delaware Department of Agriculture</li> <li>2. Maryland data provided by Maryland Department of Natural Resources</li> <li>3. New York data compiled by The Nature Conservancy</li> <li>4. Keystone Fund, Oil and Gas Lease Fund, and Environmental Stewardship Fund data provided by Pennsylvania Department of Conservation and Natural Resources</li> </ol> | <ol style="list-style-type: none"> <li>i Grants support park/recreation acquisition, development, and planning. Amount dedicated to acquisitions N/A.</li> <li>ii \$110 million appropriated in 2017 from bonded capital with anticipated 5-year spend down. Table depicts average annual amount for grants; actual annual could vary.</li> <li>iii Reflects allocations to PA DCNR.</li> <li>iv FY19 allocation for land protection not yet available (N/A).</li> </ol> |
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See Appendix for specific program descriptions.

Program	FY2016		FY2017		FY2018		FY2019	
	Overall Fund	Portion Allocated to Land Protection	Overall Fund	Portion Allocated to Land Protection	Overall Fund	Portion Allocated to Land Protection	Overall Fund	Portion Allocated to Land Protection
<b>PENNSYLVANIA (CONT.)</b>								
Farmland Preservation <sup>5, v</sup>	36,000,000	36,000,000	36,000,000	36,000,000	37,000,000	37,000,000	38,000,000	38,000,000
Marcellus Legacy Fund <sup>6</sup>								
● Greenways, Trails and Recreation Program <sup>vi</sup>	11,187,747	N/A	8,766,477	N/A	9,882,804	N/A	10,586,673	N/A
● Watershed Restoration and Protection Program <sup>vii</sup>	1,019,097	N/A	1,986,538	N/A	1,820,000	N/A	1,993,682	N/A
Mitigation Funds <sup>viii</sup>								
<b>TOTAL PENNSYLVANIA</b>	<b>172,989,844</b>	<b>49,400,974</b>	<b>193,382,015</b>	<b>48,858,500</b>	<b>173,507,804</b>	<b>53,514,000</b>	<b>189,321,355</b>	<b>45,854,600</b>
<b>VIRGINIA</b>								
Land Preservation Tax Credit <sup>7, ix</sup>	59,968,175	59,968,175	75,000,000	75,000,000	75,000,000	64,723,579	75,000,000	N/A
Virginia Outdoors Foundation Operations <sup>x</sup>	3,255,240	3,255,240	3,284,226	3,255,240	4,324,636	4,324,636	1,752,750	1,752,750
Virginia Outdoors Foundation Preservation Trust Fund	750,000	750,000	2,000,000	2,000,000	900,000	900,000	0	0
Land Conservation Foundation	2,250,000	2,250,000	6,000,000	6,000,000	3,600,000	3,600,000	0	0
Battlefield Preservation Fund			792,000	792,000	1,000,000	1,000,000	1,150,000	1,150,000
Farmland Preservation Fund <sup>8, xi</sup>	1,750,000	1,750,000	500,000	500,000	250,000	250,000	250,000	250,000
Restricted One-time Mitigation Funds <sup>xii</sup>					60,700,000	48,200,000		
<b>TOTAL VIRGINIA<sup>9</sup></b>	<b>67,973,415</b>	<b>67,973,415</b>	<b>87,576,226</b>	<b>87,547,240</b>	<b>145,774,636</b>	<b>122,998,215</b>	<b>78,152,750</b>	<b>3,152,750</b>
<b>WEST VIRGINIA</b>								
Farmland Protection Program <sup>10, xiii</sup>	777,402	777,402	748,164	748,164	783,174	783,174	N/A	N/A
Outdoor Heritage Conservation Fund Grant Program <sup>11, xiv</sup>	388,701	388,701	374,082	374,082	391,587	391,587	N/A	N/A
Outdoor Heritage Conservation Fund/DNR Funding <sup>xv</sup>	388,701	388,701	374,082	374,082	391,587	391,587	N/A	N/A
DNR Wildlife Resources Land Acquisition <sup>12</sup>	N/A	N/A	4,040,000	4,040,000	4,720,000	4,720,000	4,360,000	4,360,000
In-Lieu Fee Program <sup>xvi</sup>	N/A	N/A	2,100,000	N/A	4,300,000	N/A	3,700,000	N/A
<b>TOTAL WEST VIRGINIA</b>	<b>1,554,804</b>	<b>1,554,804</b>	<b>7,636,328</b>	<b>5,536,328</b>	<b>10,586,348</b>	<b>6,286,348</b>	<b>8,060,000</b>	<b>4,360,000</b>
<b>TOTAL WATERSHED STATES</b>	<b>390,736,063</b>	<b>232,313,193</b>	<b>467,515,569</b>	<b>286,503,068</b>	<b>552,219,788</b>	<b>362,049,563</b>	<b>564,770,105</b>	<b>291,226,350</b>

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| <ol style="list-style-type: none"> <li>5. Farmland Preservation Fund data provided by Pennsylvania Department of Agriculture</li> <li>6. Marcellus Legacy Fund data provided by Pennsylvania Department of Community and Economic Development</li> <li>7. Virginia Land Preservation Tax Credit data provided by Virginia Outdoors Foundation and Virginia Department of Taxation</li> <li>8. Farmland Preservation Fund data provided by Virginia Department of Agriculture and Consumer Services</li> <li>9. All other Virginia data provided by Virginia Department of Conservation and Recreation</li> <li>10. Farmland Protection Program data provided by West Virginia Department of Agriculture</li> <li>11. Outdoor Heritage Conservation Fund data provided by West Virginia Outdoor Heritage Conservation Fund</li> <li>12. DNR Wildlife Resources data provided by West Virginia Department of Natural Resources</li> </ol> | <ol style="list-style-type: none"> <li>v Funding level represents annual state funding threshold allocation to the Pennsylvania Agricultural Land Preservation Board.</li> <li>vi Allocation for land protection not available. Most funded projects are not for land protection, but a portion are. Totals are grants approved in fall of the FY by the Commonwealth Financing Authority from the Marcellus Legacy Fund.</li> <li>vii Allocation for land protection is not available. Most funded projects are not for land protection. Totals are grants approved in fall of the FY by the Commonwealth Financing Authority from the Marcellus Legacy Fund.</li> <li>viii This program is not active yet.</li> <li>ix Income tax credit for donated land or easements; total available credit level limited to \$75M per year. FY18 represents tax credit applied for in CY18, but not yet formally approved by VA Department of Taxation as of 05/08/2019. 2019 values not yet available.</li> </ol> | <ol style="list-style-type: none"> <li>x Covers VOF Operations: General Fund Appropriation; Recordation Fees; LPTC Transfer Fee; Private Contributions; Cost-Recovery Fees. FY19 values only represent partial data available.</li> <li>xi Provides a 1:1 match in grant funds to county purchase of development rights (PDR) programs throughout the state.</li> <li>xii One-time funds resulting from settlements to mitigate direct impacts to natural and/or cultural resources, including: DuPont, Surry-Skiffes Creek, and Mountain Valley Pipeline. Funds restricted for certain purposes and geographies.</li> <li>xiii, xiv, xv FY19 level not yet available, but projected as similar to prior years.</li> <li>xvi Land protection allocation not available.</li> </ol> |
|---|--|---|

See Appendix for specific program descriptions.

## FUNDING LEVELS FOR FEDERAL PROGRAMS SUPPORTING LAND PROTECTION

Program	FY2016		FY2017		FY2018		FY2019	
	National	Chesapeake Bay Watershed	National	Chesapeake Bay Watershed	National	Chesapeake Bay Watershed	National	Chesapeake Bay Watershed
<b>LAND AND WATER CONSERVATION FUND (LWCF) FEDERAL<sup>1</sup></b>								
NPS	63,700,000	3,093,000	52,000,000	0	56,900,000	0	44,438,000	2,113,000
FWS	68,500,000	3,111,000	60,000,000	2,100,000	63,800,000	1,000,000	65,189,000	1,000,000
BLM	38,600,000	2,591,000	31,400,000	3,000,000	24,900,000	0	26,516,000	0
FS	63,400,000	1,990,000	54,400,000	2,280,000	64,300,000	5,000,000	72,564,000	1,000,000
<b>TOTAL</b>	<b>234,200,000</b>	<b>10,785,000</b>	<b>197,800,000</b>	<b>7,380,000</b>	<b>209,900,000</b>	<b>6,000,000</b>	<b>208,707,000</b>	<b>4,113,000</b>
<b>LAND AND WATER CONSERVATION FUND (LWCF) STATESIDE<sup>2</sup></b>								
DC		217,536		329,806		507,747		N/A
DE		0		0		0		N/A
MD		5,913,940		0		3,625,633		N/A
NY		0		900,000		1,581,000		N/A
PA		0		936,000		1,469,600		N/A
VA		0		0		800,526		N/A
WV		31,046		60,000		0		N/A <sup>i</sup>
<b>TOTAL<sup>i</sup></b>	<b>110,000,000</b>	<b>6,162,522</b>	<b>110,000,000</b>	<b>2,225,806</b>	<b>124,000,000</b>	<b>7,984,506</b>	<b>124,006,000</b>	<b>N/A</b>
<b>FOREST LEGACY<sup>3</sup></b>	<b>62,347,000</b>	<b>0</b>	<b>62,347,000</b>	<b>0</b>	<b>67,025,000</b>	<b>0</b>	<b>63,990,000</b>	<b>1,555,000</b>
<b>NORTH AMERICAN WETLANDS CONSERVATION ACT (NAWCA)<sup>4, ii</sup></b>	<b>51,035,538</b>	<b>1,892,334</b>	<b>43,016,332</b>	<b>7,911,944</b>	<b>49,763,364</b>	<b>6,822,701</b>	<b>40,000,000</b>	<b>N/A<sup>ii</sup></b>
<b>NATIONAL COASTAL WETLANDS CONSERVATION<sup>5</sup></b>	<b>17,000,000</b>	<b>1,750,000</b>	<b>17,000,000</b>	<b>0</b>	<b>17,000,000</b>	<b>0</b>	<b>17,000,000</b>	<b>N/A</b>
<b>FARM BILL LAND PROTECTION PROGRAMS<sup>6</sup></b>								
Agricultural Conservation Easement Program (ACEP) <sup>iii</sup>	450,000,000	7,578,000	500,000,000	5,066,000	250,000,000	4,483,000	450,000,000	N/A
Regional Conservation Partnership Program (RCPP) <sup>iv</sup>	0	0	0	0	0	0	N/A	N/A
<b>TOTAL FARM BILL</b>	<b>450,000,000</b>	<b>7,578,000</b>	<b>500,000,000</b>	<b>5,066,000</b>	<b>250,000,000</b>	<b>4,483,000</b>	<b>450,000,000</b>	<b>0</b>
<b>DoD REPI<sup>7, v</sup></b>	<b>75,000,000</b>	<b>1,654,000</b>	<b>75,150,000</b>	<b>7,501,727</b>	<b>90,000,000</b>	<b>2,882,029</b>	<b>N/A</b>	<b>487,231<sup>iii</sup></b>
<b>TOTAL</b>	<b>999,582,538</b>	<b>29,821,856</b>	<b>1,005,313,332</b>	<b>30,085,477</b>	<b>807,688,364</b>	<b>28,172,236</b>	<b>903,703,000</b>	<b>6,155,231</b>

### Notes:

For each program, both nationwide funding levels and the amount allocated within the Chesapeake Bay watershed are listed.

- LWCF Federal data compiled by Chesapeake Conservancy
- LWCF State data provided by National Park Service
- Forest Legacy data provided by USDA Forest Service
- NAWCA data provided by US Fish and Wildlife Service
- National Coastal Wetlands Conservation data provided by US Fish and Wildlife Service
- Farm Bill data provided by USDA Natural Resources Conservation Service. National level is at the authorization level; Chesapeake Bay watershed obligated to Technical and Financial Assistance
- DoD REPI data compiled by Chesapeake Conservancy

- FY19 stateside allocations not yet available.
- FY19 appropriation is \$40 million; other sources will bring available \$ higher.
- FY19 allocations not yet available.
- The 2018 Farm Bill reconfigures RCPP; guidance on how it will support land protection is under development by NRCS.
- FY19 Chesapeake Bay Watershed allocation only through 12/2018.

See Appendix for specific program descriptions.

## FEDERAL LAND CONSERVATION FINANCING:

A number of federal programs support permanent land conservation in the Chesapeake watershed, although together they represent a far smaller portion of the overall total of financing compared to state programs. Here we summarize funding levels for all major federal land conservation programs. For each we have attempted to represent both the nationwide funding level and the amount of that allocated within the watershed.

Overall, federal allocations for land protection in the Chesapeake totaled \$28.2 million in FY 2018, the last full year of available data. Here are a few observations for that year:

- In 2018, Congress allocated just over \$330 million for the nation's premier federal program, the Land and Water Conservation Fund. Approximately \$14 million of that supported land protection in the Chesapeake watershed, including direct federal acquisitions and grants to states supporting land protection.
- Forest Legacy, a granting program supporting forest protection, was funded at \$67 million nationally in FY 2018. No grants were awarded in the Chesapeake watershed that year or the prior two years (2016 and 2017), but \$1.6 million is committed to Chesapeake projects in FY 2019.
- North American Wetlands Conservation Act grants provided \$6.8 million in FY 2018 for land protection projects in the watershed.
- Under the 2014 Farm Bill the primary funding for land protection is through the Agricultural Conservation Easement Program (ACEP), which provided \$4.5 million of Chesapeake watershed projects in 2018. The 2018 Farm Bill is anticipated to generate more funds for the watershed as a result of policy changes and higher appropriation levels nationally.

### 2018 SUCCESS STORY

#### Gatewood Preserve Adds to Calvert County Public Parks

In the fall of 2018 Calvert County in Southern Maryland purchased a 48-acre property nestled between two existing county parks—Biscoe Grey Heritage Farm and the Battle Creek Cypress Swamp Sanctuary. The county now has more than 340 contiguous acres of preserved forested and open space along the upper reaches of Battle Creek.

The new property includes a residence, outbuildings, and an existing pier with direct access to Battle Creek. There are also trails for hiking and horseback riding. Future plans call for converting the residence into a nature center, improving the pier and trails, and using fields for parking, youth camping, and demonstration gardens.

The Gatewood Preserve, named for the former owners, "is an important acquisition for Calvert County and provides a new water access site complete with a kayak/canoe launch on scenic Battle Creek," said Natural Resources Division Chief Karyn Molines. "With the forethought of Walter and



A 48-acre property between two county parks includes this meadow, as well as forested lands and direct access to Battle Creek.

CALVERT COUNTY/KARYN MOLINES

Isabelle Gatewood to preserve this land, and the actions by their children to work with county government to create a nature park, citizens will enjoy the beauty of this new park for years to come."

To fund the purchase, Calvert County reassigned excise tax receipts set aside in its capital improvement plan to match grant funds from Maryland's Program Open Space-Local and the federal Land and Water Conservation Fund.



Harvesting grapes at Boordy Vineyards. The Baltimore-area winery is doing its part to contribute to the economy and responsible Bay stewardship by implementing sustainable agricultural practices.

PHOTO: CHESAPEAKE BAY PROGRAM/WILL PARSON

## 2018 SUCCESS STORY

### Small-Scale Land Conservation Adds Up in D.C.

Conservationists usually talk in terms of acres and square miles and landscape scale. But 70 percent of the Chesapeake watershed's population lives in urban areas. There, conservation progress in smaller increments can be just as important to quality of life.

Washington, D.C., is an example. In 2018 Casey Trees, a nonprofit organization whose mission is to restore and protect the city's tree canopy, worked with the District's Department of Housing and Community Development to place easements on four small vacant properties the agency was slated to auction off. Three of the four properties are located in the watershed of the Anacostia River, in the east and southeast sections of the city, and one is in the District's northern corner. The easements require that about 95 percent of the land remains available for planting trees and other vegetation.

While the amount of land protected is relatively small—measured in square feet rather than acres—the concept is noteworthy. It's unusual for a municipal government to put its own land under private easement. "A key part of our mission is revitalization," says Polly Donaldson,



The entrance to Crispus Attucks Park in Northwest D.C., one of the small neighborhood parks protected by a conservation easement

CASEY TREES

director of the Department of Housing and Community Development. "The trees, neighborhood by neighborhood, are great investments for the city, and we see that as a way to preserve green space in an urban environment."

The population of the Nation's Capital is nearing 700,000 residents and grows by nearly 1.5 percent each year. Protecting the District's reputation as the "City of Trees" will be ever more challenging. Both the city and the nonprofit, along with citizens who value green spaces and tree canopies in their neighborhoods, will be looking for opportunities to add even small spaces to the tally of protected lands.

→ The Department of Defense's Readiness and Environmental Protection Integration program (REPI) supports land protection benefiting military bases and training areas. With the prevalence of such installations in the watershed, the REPI program continues to be an important source of land protection funding.

Many, but not all, of the above programs require a funding match from state programs or other sources.

### SUMMARIZING STATE AND FEDERAL FUNDING:

Overall, state funding for land conservation in the six watershed states will exceed \$300 million in FY 2019. It is a significant investment that dwarfs the \$28.2 million allocated in the watershed in 2018 from federal sources, though the new Farm Bill is expected to increase federal contributions somewhat in the future.

State funding has been on an upward trend since 2016, fueled most significantly by substantial relative increases in Maryland and Delaware and New York's new (in 2017) source water protection program.

The last time state and federal land protection funding was assessed in a comprehensive way was in 2010. The assessment methodology was similar then, though it only covered Maryland, Pennsylvania, and Virginia. How do 2010 levels compare with today, when looking at the same geography?

State funding for Maryland land protection has doubled since 2010, from \$72 million to \$144 million. Pennsylvania levels remain about the same: \$48 million in 2010; \$46 million today. Virginia's investment, not counting funding from mitigation settlements, has declined somewhat from about \$86 million in 2010 to \$78 million in 2019.

Notably, farmland preservation is one of the strongest focal points for land protection funding in the watershed. In FY 2019 at the state level, dedicated farmland preservation programs represent more than a third of overall funding (\$114.8 million). Including other state programs that conserve large amounts of farmland, such as Maryland's Rural Legacy Program and especially Virginia's Land Preservation Tax Credit,<sup>15</sup> means farmland preservation represents more than half of all state land protection funding.

On the whole, Chesapeake watershed state funding programs are healthy and envied by many states around the nation, but there are weaknesses within some states and also general concerns. Governors and state legislatures face competing demands. Conservationists recognize the need for adding a next generation of innovative financing while maintaining existing programs. Achieving 2025 commitments and long-term goals for conserving the watershed's most valued lands requires higher levels of annual investment than current financing, especially in some states. This will require increases in existing programs and new financing methods, including private capital.

At the same time, this assessment is only part of the picture. As just one example: Over a 25-year period, Lancaster County, Pennsylvania, invested more than \$113 million of county funds in farmland preservation, matched by more than \$90 million in state funds and \$10 million in federal funds. County level investments in land conservation are a significant element of overall conservation financing. The Partnership is committed to assessing the levels of other existing sources, including local and county funds, in the future.

## 2018 SUCCESS STORY



The new Big Flats Wildlife Management area appears roughly in the center of this view, fronting Chemung River and extending across the highway and up Harris Hill (shaded hill at the left).

FINGER LAKES LAND TRUST/STEPHANIE DELANY

### New York's Big Flats Wildlife Management Area

When the New York State Department of Corrections planned to sell off farmland that previously produced milk for the Elmira Correctional Facility, conservationists saw an opportunity. The 130-acre parcel, with frontage along the Chemung River and Sing Sing Creek, could provide significant habitat for wildlife and public access for fishing. The Chemung, in south-central New York, is a major tributary of the Susquehanna River. New York's Department of Environmental Conservation (DEC) and other partners began work to establish the property as a new wildlife management area. The land was transferred to DEC in 2018 and designated as Big Flats Wildlife Management Area. Over time Big Flats will create new opportunities for native species, help protect water quality, and benefit the quality of life of communities along the Chemung.

15. A 2014 survey of landowners who donated easements through the Virginia Land Preservation Tax Credit program showed that 90 percent of landowners are managing the protected lands for agricultural production or forestry, with raising livestock and growing commercial agricultural crops being the top uses. See Responsive Management. "Opinions On and Use of Land Preservation Tax Credits Among Landowners Who Have Donated Easements to the Virginia Outdoor Foundation," 2014. Available online at <http://www.virginiaoutdoorfoundation.org/2014/11/survey-finds-vof-easements-largely-protecting-working-farms-forestland/>



Conservation is, above all, about providing for the future—about the quality of life for our children and their children.  
NICHOLAS A. TONELLI

2018 SUCCESS STORY



A view of Nanticoke River wetlands just north of Nanticoke Wildlife Management Area in Wicomico County, Maryland  
CHESAPEAKE BAY PROGRAM/MATT RATH

Demand for Conservation Exceeds Supply of Funding

**H**ow does the availability of land protection funding compare to the demand for protecting additional properties in a given year? While there is no overall assessment of supply and demand, statistics from several land protection grant programs provide useful indicators that show demand for conservation does indeed exceed available funds. Pennsylvania's Farmland Preservation Program received a healthy looking \$38 million in fiscal year 2019. But, demand for conservation far exceeds that capacity when state funding is split among 58 certified county programs. For example, Adams County's recent solicitation for its farmland preservation program generated 68 applications totaling more than 6,300 acres. Yet, with existing state and matching funding, the county anticipates being able to preserve only 800 to 1,000 acres. This is a typical pattern for each of the past solicitations for Adams County as well, and is also the case for many other counties. Overall, the Pennsylvania Department of Agriculture estimates approximately 1,500 farms are on county backlog lists for preservation.

Similarly in Maryland there continues to be significant statewide interest among farmers to sell easements to the Maryland Agricultural Land Preservation Foundation (MALPF). Over the last three application cycles between 2013 and 2018, a total of 538 applications were submitted to MALPF, but only 247 easements could be offered given available funding. In 2019, the first single-year application round in a decade, MALPF has already received 191 applications. The Virginia Land Conservation Foundation (VLCF), administered by the commonwealth, solicits grant applications for state funding to support projects protecting farms and forests, historic resources, parks and open space, and natural areas. In the FY 2018 grant round, \$4.24 million was available (\$3.6 million provided in that year's state budget and the rest from prior withdrawn projects and projects that closed under budget). VLCF received 29 applications requesting more than \$7.43 million, almost \$3 million more than was available. Since first receiving funding in FY 2000, the foundation has held 12 grant rounds, receiving 337 applications requesting more than \$122.9 million in state funding—more than double the available funds.

Multi-Faceted Partnerships Bring Success

Protecting lands is often a complex process involving multiple parties. A 2018 success story in Maryland's Dorchester County is a case in point. In February a partnership among the US Navy, Maryland Department of Natural Resources, The Conservation Fund, The Nature Conservancy, and the Chesapeake Conservancy led to permanent protection of 230 acres of a family-owned farm through purchase of a conservation easement. Spread over three parcels, the farm is made up of 135 acres of prime agricultural fields and 85 acres of forest in the Nanticoke River watershed. The property provides a key connection between two large ecologically important areas previously protected, creating an approximately 7,730-acre corridor. The US Navy may seem an unlikely "bedfellow" in land conservation, but for 16 years the Department of Defense has used its Readiness and Environmental Protection Integration (REPI) program and a Sentinel Landscapes Partnership as key tools to help protect the military's ability to train, test, and operate in vicinity of defense installations, ranges, and airspace. Sentinel Landscapes are working or

natural lands important to the nation's defense mission—places where preserving the working and rural character of key landscapes strengthens the economies of farms, ranches, and forests; conserves habitat and natural resources; and protects vital test and training missions conducted on the military installations that anchor those landscapes. The corridor of conserved lands that includes the Dorchester County property is part of the Middle Chesapeake Sentinel Landscape that spans portions of Maryland, Virginia, and Delaware. Specifically it is beneath the Atlantic Test Range's special use airspace used by aircraft out of the Naval Air Station—Patuxent River. The Nature Conservancy and The Conservation Fund managed the creation of the easement in partnership with the landowners. The easement purchase was made possible by a combination of federal funding through the REPI program, state funds from Maryland's Rural Legacy Program, and private funds from the Chesapeake Conservancy through a land conservation grant from Mt. Cuba Center.

# Priorities for Advancing Chesapeake Conservation



While partners in the Chesapeake conservation movement can be proud of the progress shown in the data and examples provided in this status report, we recognize the need to accelerate our collective efforts to conserve land to protect and enhance the quality of life for all people in the watershed.

There is an urgency about this. Construction of pipelines and transmission lines threatens to fragment and diminish many places in the region that local residents care about. Increased precipitation and sea-level rise combined with forest loss are causing record-breaking flooding. Scientists across the world warn of dangerously high rates of loss of vital habitats that sustain species and ecosystems. Data over the past five decades show temperatures in virtually every part of the Chesapeake watershed are getting consistently warmer. Population in the watershed is projected to increase from the current 18 million to 22.5 million by 2050, putting additional stresses on the region's resources.

Conserving land directly addresses these and other challenges. In almost all cases, land conservation provides multiple benefits. Conserving and restoring wetlands “stacks” best management practices for improving water quality and improving resiliency to flooding and sea-level rise. Preserving intact forests provides a wide range of ecosystem services.

There is great reason for hope here in the Chesapeake watershed. But we can—and must—do more to build on the progress already evident. The following are near-term priority actions the Chesapeake Conservation Partnership will pursue to advance Chesapeake conservation.

Native wildlife and migratory species need large natural areas and corridors to thrive in the watershed and beyond.

PHOTO: CHESAPEAKE BAY PROGRAM/WILL PARSON

## WE KNOW MORE THAN EVER BEFORE, BUT NOT ALL WE NEED TO:

The collection and analysis of data for informing Chesapeake conservation is better than ever. High-resolution land cover data prepared by the Chesapeake Conservancy and partners for the entire watershed—and available free for others to use—breaks new ground and allows a whole new level of precision in conservation. The Chesapeake Conservation Partnership's *Chesapeake Conservation Atlas*<sup>16</sup> offers maps and analyses for guiding conservation planning for multiple values. The Commonwealth of Virginia is releasing new conservation map layers depicting priority lands through ConserveVirginia (*See box below*). And there is more. These advances not only enhance conservation progress in the watershed but elevate our work in the Chesapeake as a model for other landscape-scale conservation/restoration efforts.

Yet, we also know of vital analyses and products still needed to fill gaps and accelerate conservation. Among them are the following:

### → Filling the Cultural and Scenic Landscapes Documentation Gap:

While scenic and cultural landscapes are often major drivers of conservation—because people care so much for them—comprehensive documentation of these resources has lagged significantly behind. This results in many valued landscapes not being represented in the information systems that could help lead to their conservation. We must employ technology, crowd-sourcing, GIS, and related analyses to efficiently identify under-represented landscapes of cultural and scenic importance and develop base-level documentation of scenic and cultural landscapes throughout the Chesapeake watershed. The Partnership has already begun work on a methodology for scenic landscape impact assessment related to some of these issues.

### → Informing Conservation Choices in a Changing Environment:

The changing environment—sea-level rise, precipitation regimes, storm patterns, and temperature changes—will greatly affect values we care about: farms, forests, habitat, heritage and more. We must work with experts around the region to analyze projected changes and potential influences on Chesapeake conservation values to inform where efforts are best directed and how priorities might change over time.

16. Chesapeake Conservation Partnership. *Chesapeake Conservation Atlas*. Available online at <https://www.chesapeakeconservancy.org/index.php/our-work/chesapeake-conservation-atlas/>

## ConserveVirginia

In April 2018, Governor Ralph Northam announced a strategic approach to land conservation in Virginia focused on identifying the lands most valuable for sustaining and enhancing what makes the commonwealth a wonderful place to live and visit. ConserveVirginia is a key tool for documenting those values and guiding investments. It represents a new data-driven approach to land conservation that builds upon work already underway in Virginia and in other states. ConserveVirginia's central feature is a living "smart map" that identifies approximately 6.3 million acres of priority lands for conservation. The map is a synthesis

of 19 mapped data inputs in six categories, each representing a different overarching conservation value: Agriculture and Forestry; Natural Habitat and Ecosystem Diversity; Flood Plains and Flooding Resilience; Cultural and Historic Preservation; Scenic Preservation; and Protected Landscapes Resilience. Outdoor recreation is a critical component of the strategy and will be addressed across the categories. The ConserveVirginia map is designed to be regularly updated as new data become available and additional resource and protection tools emerge.

## Conservation Innovation Center

Data is emerging as a powerful new driver to accelerate the pace and quality of conservation and restoration efforts. The Chesapeake Conservancy established the Conservation Innovation Center (CIC) in 2013 to leverage cutting-edge research and technology and make it accessible to the conservation community. In 2016, CIC and its partners completed the Chesapeake Bay High-Resolution Land Cover Project, an immense one-meter resolution land cover dataset that classifies landscape features for use in planning and goal tracking. The database is available to all nonprofits, governments, and businesses for free as open data to help conservation organizations of all sizes better protect habitat, water quality, and heritage sites. A new grant from the US Environmental Protection Agency will build on this database to provide updated, high-resolution data about landscape changes. CIC offers a variety of precision conservation, geospatial analyses, mapping, and consulting services.

See <https://chesapeakeconservancy.org/conservation-innovation-center>



CIC has produced precise land cover data for the entire Chesapeake watershed, represented here for the US Capitol. It is 900 times more detailed than before and is available for free download.

CHESAPEAKE CONSERVANCY/CONSERVATION INNOVATION CENTER

## Cause for Alarm

Studies show that rainfall in the Chesapeake region has been gradually increasing for nearly a century, according to information from the Chesapeake Bay Program. The frequency, intensity, and severity of rain events have serious consequences for people living in flood-prone areas. Just ask the residents of Ellicott City, a historic mill town about 13 miles west of Baltimore, Maryland. Built to harness the energy of four streams where they converge to form the Tiber River before emptying into the Patapsco, the town has experienced about 50 floods since its founding in 1772, with increasing severity in recent years. On July 30, 2016, over 6 inches of rain fell during a two- to three-hour period. Meteorologists



Floodwaters rage through Main Street, Ellicott City, Maryland, May 27, 2018.

BALTIMORE SUN MEDIA/LIBBY SOLOMON. USED BY PERMISSION. ALL RIGHTS RESERVED.

called it a 1,000-year flood, meaning there is a one in 1,000 chance of it happening in a given year. Two years later on May 27, 2018, the town experienced some 8 inches of rain over a six-hour period, most in an intense three-hour downpour. Flash flooding in both occurrences resulted in fatalities and tens of millions of dollars in damages. The continued loss of forest cover to development upstream of Ellicott City undoubtedly contributed to the intensity of the flooding.



A new 28,300-acre Harriet Tubman Rural Legacy Area in Dorchester County, Maryland, will help to preserve the natural, cultural, historic, and scenic landscape of Tubman's youth and early adulthood.

DAVID HARP/CHESAPEAKEPHOTOS.COM

## 2018 SUCCESS STORY

### Conserving the Landscape of Harriet Tubman on Maryland's Eastern Shore

Harriet Tubman was born into slavery on the Eastern Shore of Maryland at the Thompson plantation, south of the Choptank River at Harrisville. After escaping to the North in 1849, Tubman returned to the area numerous times to lead more than 70 enslaved people to freedom along what came to be known as the Underground Railroad. The landscape today is still largely in fields, forests, wetlands, and small communities evocative of Tubman's time. It includes Blackwater National Wildlife Refuge, a sanctuary for birds and wildlife and a natural landscape largely unchanged since Tubman's time.

Grassroots interest drew the attention of state and local agencies and nongovernmental groups to a national story of heroism, courage, and self-determination. They joined in efforts to create the Harriet Tubman Underground Railroad Byway in 2000 as a state scenic byway. It was designated an All-American Road in 2008. Research revealed more Underground Railroad sites, which became part of a 125-mile self-guided driving tour. Interest in heritage tourism fueled awareness of economic and educational opportunities for the area. The centerpiece is now the Harriet Tubman Underground Railroad Visitor Center, which opened in 2017, part of a Maryland state park and developed in conjunction with the Harriet Tubman Underground Railroad National Historical Park.

In August 2018, the Maryland Department of Natural Resources created a new 28,300-acre Harriet Tubman Rural Legacy Area in Dorchester County and allocated an initial \$2 million in grants to support conservation of the landscape associated with Tubman's life and legacy. One of 32 designated Rural Legacy Areas in the state designed to benefit local rural economies and the environment, the influx of state funding will further preserve this natural, cultural, historic, and scenic landscape.



Harriet Tubman, circa 1868  
COLLECTION OF THE NATIONAL MUSEUM OF  
AFRICAN AMERICAN HISTORY AND CULTURE  
SHARED WITH THE LIBRARY OF CONGRESS

- **Addressing Farming Futures and “Foodsheds”:** Agriculture is a major land use and a big part of the economy in the Chesapeake region. Farming evolves over time, due to a variety of factors. We must envision how agriculture might change over the next few decades, including how preferences for local foods will evolve and the impact of new technologies. How should these changes influence conservation priorities?
- **Connecting Conservation and Human Health:** The Partnership has focused on access to the water and to parks as important contributors to human health. But we must expand this to incorporate additional public health values, including protecting source areas for public drinking water, increasing recreation corridors between urban areas and surrounding landscapes, and issues such as equity and environmental justice. Linking these values with other goals for habitat, forests, and farms supports more effective overall landscape-scale conservation and will help ensure that conservation efforts benefit all populations.
- **Making Land Protection Data More Timely:** Watershed-wide progress on land protection is currently only calculated every two years. The Partnership is collaborating on a methodology for improving the accuracy, completeness, and frequency of updated land acquisition progress in the watershed.

### WE MUST CONNECT PEOPLE WITH CONSERVATION:

Today, 70 percent of the Chesapeake watershed population lives within urban areas. The vast majority of our population does not interact on a regular basis with the traditional places that have been the focus of conservation. Moreover, studies show the youth of this era spend less and less time outdoors. Many current legislators

### Chesapeake Land and Water Initiative Uses Collective Action to Enhance Conservation Efforts

In 2016, the Land Trust Alliance and the Chesapeake Bay Funders Network jointly launched the Chesapeake Land and Water Initiative. A five-year effort to accelerate land conservation and enhance stewardship on already-conserved lands, the Land and Water Initiative has awarded grants totaling more than \$500,000 to support science-based planning, new partnerships, and on-the-ground protection and restoration. Eighteen projects (four in Maryland, five in Pennsylvania, eight in Virginia, and one in West Virginia) across the watershed are helping to ensure that the lands we protect—and have already protected—are delivering cleaner water, contributing to the historic effort to restore the Chesapeake Bay and its rivers and streams.

Among these, the new Eastern Panhandle Safe Waters Collaborative in West Virginia brings together local and regional partners to conserve and restore lands important for safe drinking water in their communities.

In neighboring Virginia, the Shenandoah Valley Conservation Collaborative includes two land trusts, a historic preservation group, a watershed group, and the Shenandoah County Easement Authority. Their shared interest in conserving key land and water resources has led to a new partnership to prioritize, protect, and restore important agricultural soils, battlefield lands, and priority rivers and streams in the Shenandoah Valley, working with interested landowners and communities.

The Land and Water Initiative's first phase is due to wrap up in 2020. An interim evaluation is underway, which will provide important lessons on how to best support land conservation to achieve cleaner water in the Chesapeake watershed.

were not in office at the time today's conservation financing programs were established. Yet, these are many of the people needed to support public funding and policy for conservation, now and in the future. We must ensure that conservation is addressing the values and needs of current and future generations of Chesapeake residents. Further, we must effectively communicate those values and needs in all the conservation work and advocacy we carry out.

- **Engaging the Next Generation of Conservationists:** A number of partner organizations are pursuing strategies for connecting young, under-represented, and/or urban residents with conservation and stewardship opportunities. The Partnership should link, leverage, and extend these efforts as part of a holistic approach for building the next generation of conservationists. This should include ensuring their values are front and center through the priority-setting and analyses described above.
- **Communicating the Values of Conservation:** Partnership members have long recognized the need to unify messaging used in communicating the importance and values inherent in land conservation for current and future generations. In 2018, the Partnership initiated development of a messaging framework, "tool kit," and training sessions for supporting targeted conservation communications by all partners. The initiative continues in 2019, and there is significant potential for expanding and improving how we all communicate our conservation messages and stories. Moreover, this messaging needs to be employed in specific efforts to mobilize funding and policy.



Baltimore middle-school students participate in the Kids in Kayaks program, one of several National Park Service Chesapeake initiatives to connect young, urban audiences with nature.  
NPS CHESAPEAKE

## 2018 SUCCESS STORY

### Delaware Nanticoke River Access

Conservation successes come in all sizes. In Seaford, Delaware, a one-acre parcel of waterfront will provide new public access to the historic and scenic Nanticoke River. The Nanticoke, meandering 64 miles from southern Delaware to Tangier Sound in Maryland, is one of the most beautiful and undeveloped tributaries of the Chesapeake Bay. It claims to offer a landscape so pristine that it evokes what indigenous peoples might have seen along the river centuries ago. Seaford, a town of about 7,000 on the upper Nanticoke, takes pride in its connections to history and to the river.

In October 2018 the town celebrated the acquisition of the old J.B. Robinson Oyster House site along the Seaford River Walk. With support from Mt. Cuba Center, the Chesapeake Conservancy purchased the nearly one-acre parcel and donated it to the city to become a small waterfront park with a kayak launch and other amenities. The Nanticoke River Watershed Conservancy will hold an easement on the property, which specifies its use exclusively for recreational access. The transaction complements other conservation projects along the Nanticoke.



A small parcel of land adjacent to Seaford's popular River Walk will provide direct access to the Nanticoke River.  
CHESAPEAKE CONSERVANCY/JODY COUSER

But for Randall Larrimore, the new public access site has special meaning. Larrimore grew up in Seaford and recalls: "Sixty years ago the Nanticoke River was so polluted that it was unsafe. My father was mayor of Seaford then and was responsible for building a sewage disposal plant that has now cleaned up the river. It is very rewarding for me to follow in my father's footsteps and help make the beautiful Nanticoke River more accessible so thousands of people can enjoy the wonders of our natural environment."

## 2018 SUCCESS STORY

### Mixed Historical Uses Convert to Mixed Recreational Uses in Pennsylvania Acquisition

In 2018, the Central Pennsylvania Conservancy (CPC) acquired 34 acres of the east branch of Letort Spring Run, a coldwater limestone tributary to Conodoguinet Creek and a Pennsylvania designated scenic river. This acquisition was funded in part by a Department of Conservation and Natural Resources grant of \$207,940 from the Keystone Recreation, Park, and Conservation Fund.

Located in Cumberland County, the property was developed in the 19th century as a railroad, a quarry, and an industrial-scale watercress farm. The farm and related infrastructure represent a relic of former use, while the railroad corridor has been repurposed as the Letort Nature Trail, providing a greenway connection in South Middleton Township. Anglers have access to 1,000 yards of protected frontage along a Class A wild trout stream, said to be one of the finest limestone trout streams in the nation. Families and nature enthusiasts have the opportunity to view wildlife and soak in the biological diversity offered by expansive wetlands and limestone spring meadows.



The historic Letort Spring Run property was first settled around 1720. In the late 19th century entrepreneurs discovered that watercress thrived in the spring water and established an industrial-scale watercress farm there in 1891.  
CENTRAL PENNSYLVANIA CONSERVANCY

CPC will rehabilitate previously developed areas of the landscape for wild trout spawning/rearing areas, enhanced bird and wildlife habitat, and stormwater management. The Conservancy already provides educational programming on the property, telling the story of the area's past while promoting stewardship training on the importance of preserving natural areas that are accessible to an urban community.

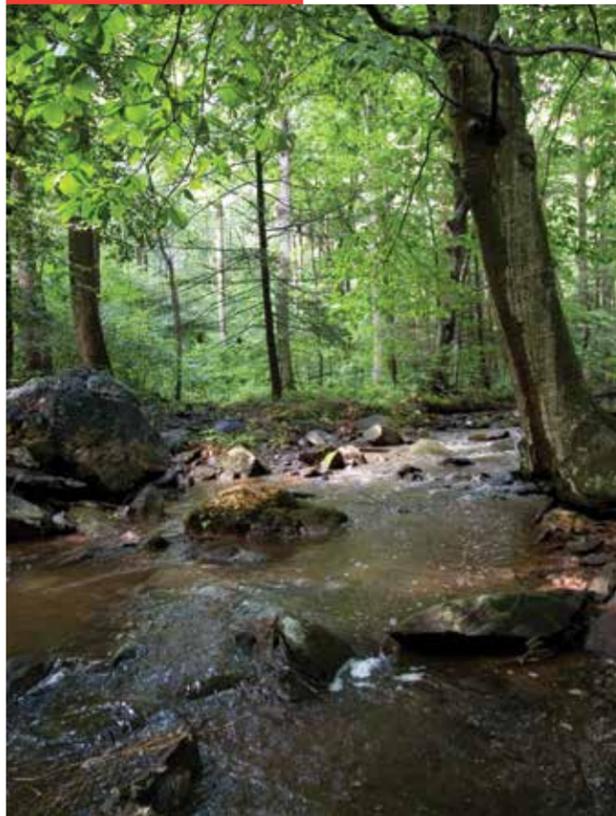
→ **Ensuring Public Parks Reflect the Full Scope of American Culture:** Parks have not always represented or interpreted the full scope of American culture and history. Recent successful efforts by Chesapeake partners have begun to address this, including establishing Fort Monroe National Monument and the Harriet Tubman Underground Railroad National Historical Park—both central to pivotal events in this country’s African American history—and protecting the American Indian site at Werowocomoco. Yet, there is more to do in protecting additional resources important to under-represented communities and interpreting the full range of stories at existing parks and other cultural sites.

**WE MUST PURSUE PUBLIC POLICIES THAT SUPPORT CONSERVATION:**

State and local officials enact policies that have significant influences on conservation. One current area of opportunity relates to policies for planning and siting pipelines, transmission lines, and large-scale commercial solar and wind projects. The Environmental Law Institute, on behalf of and in collaboration with the Chesapeake Conservation Partnership, published a report in November 2018 detailing a series of recommendations that the states of Pennsylvania, Maryland, and Virginia can adopt to strengthen their respective mitigation policies governing these types of projects. Partnership members in these states should assess these recommendations and pursue adoption of those that seem most effective and likely to be supported.<sup>17</sup>

17. Environmental Law Institute. *Opportunities to Improve Landscape-Scale Mitigation for Energy Projects in the Chesapeake Region*. 2018. Available online at [http://www.chesapeakeconservation.org/wp-content/uploads/2018/11/Linear-Projects-Report\\_Nov\\_2018.pdf](http://www.chesapeakeconservation.org/wp-content/uploads/2018/11/Linear-Projects-Report_Nov_2018.pdf)

**2018 SUCCESS STORY**



**Pennsylvania’s South Mountain and Michaux State Forest**

The nearly 86,000-acre Michaux State Forest forms a major wildlife and recreation corridor through south-central Pennsylvania in the South Mountain landscape. The Appalachian Trail weaves through the forest’s length.

In June 2018, Strawberry Hill Nature Preserve, an environmental education center in Adams County, donated and sold 560 acres to the Pennsylvania Department of Conservation and Natural Resources as an addition to Michaux State Forest. The addition protects the headwaters of Swamp Creek, recently designated an Exceptional Value Stream. Proceeds from the sale will enhance educational programming at the Preserve’s main campus in Fairfield. The transfer is part of Strawberry Hill’s ecological management plan to maintain the health of the Swamp Creek and Middle Creek watersheds.

The 2018 addition to Michaux State Forest protects the headwaters of Swamp Creek, designated an Exceptional Value Stream. STRAWBERRY HILL NATURE PRESERVE/RUD PLATT

Another area of opportunity is adopting policies that enable and stimulate private capital investment in conservation and restoration. As one example, states should consider changes in procurement policies to allow competitive contracting for restoration projects using “pay for success” or “full service” delivery methods. “Pay for success” approaches enable payment for the outcomes of a project, where the project developer is paid if and when the outcome is achieved, such as when a certain amount of forest is restored, stormwater is reduced, or acres are converted to habitat.

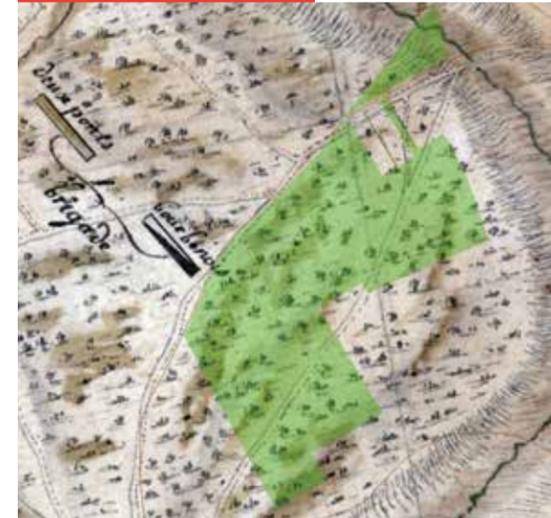
**WE MUST PURSUE MORE CONSERVATION FUNDING:**

We have significant conservation financing, but not enough to fill the need. As noted earlier, the Chesapeake watershed is blessed with major programs that finance land conservation. They have fueled the protection of hundreds of thousands of acres in recent decades. Yet, at current funding levels, many of these programs are not keeping up with demand. For example, conservation easement programs have more landowners asking to participate than resources available for acquiring the easements. Nor are existing funding levels sufficient for meeting long-term conservation goals at the rate needed to sustain our desired quality of life.

We must increase our efforts to:

- **Deploy effective strategies to enhance sources of public conservation funding:** Consistent, persistent education and outreach to federal, state, and local government officials about the social and economic benefits of conservation are vital. We know this works. The Partnership’s coordination of “Rivers of the Chesapeake Collaborative Land and Water Conservation Fund” proposals rallied over 30 congressional representatives and four governors in support of increases in federal funding for land conservation. In Maryland, the governor and legislators recently agreed to fully fund Program Open Space, significantly increasing funding over prior years. At the local level, ballot measures on the heels of a public campaign have successfully rallied residents to support bond measures for increased conservation. We must continue and expand strategic communication and education efforts.
- **Enhance and expand both incentive-based and private land conservation funding:** We must work to develop a broader set of finance strategies to achieve greater scale for conserving valuable lands. Here are two examples:
  - **Crediting Conservation in Maintaining Water Quality:** In 2010, the Chesapeake Bay TMDL (Total Maximum Daily Load) became the primary driver for reducing sediment and nutrient pollution. Conservationists were concerned the TMDL did not account for—or “credit”—land protection for its value in preventing future pollution. In December 2018, the Chesapeake Bay Program approved a new model that for the first time allows adoption of “Land Policy Best Management Practices” (BMPs) to offset increased pollution attributed to future growth and development. These BMPs “credit” certain growth management policies and acquisition of valuable

**2018 SUCCESS STORY**



The Battlefield Bluffs tract is represented here by the green overlay on a historic map of the Siege of York, 1781, surrounded by land that is part of Colonial National Historical Park. NPS COLONIAL NATIONAL HISTORICAL PARK

**Victory at Yorktown**

On October 19, 2018, the 237th anniversary of the British army’s surrender in the American War for Independence, the American Battlefield Trust announced a modern-day victory at Yorktown: the preservation of 49 acres of hallowed ground associated with the historic battle and siege. A four-year effort and \$5.64 million acquired and permanently preserves the tract known as “Battlefield Bluffs,” thereby preventing construction of a 100-home subdivision adjacent to Colonial National Historical Park.

The Battlefield Bluffs tract is almost entirely surrounded by Colonial. Development of the subdivision would have felled the historic property’s woods, ruined views from the park, and marred visitor experience of the historic landscape along Colonial’s West Tour Road, which follows historic road traces.

The acquisition of Battlefield Bluffs is the second costliest in the Trust’s 31-year history. The nonprofit, nonpartisan organization is dedicated to preserving battlegrounds associated with the Revolutionary War, War of 1812, and Civil War and educating the public about what happened and why it matters today.



Land conservation protects habitat for vast numbers of migratory birds. Geese, swans, and ducks, like this male pintail, migrate from breeding grounds in arctic tundra to winter in the Chesapeake region.

MARYLAND DEPARTMENT OF NATURAL RESOURCES/  
JEFF WETZEL

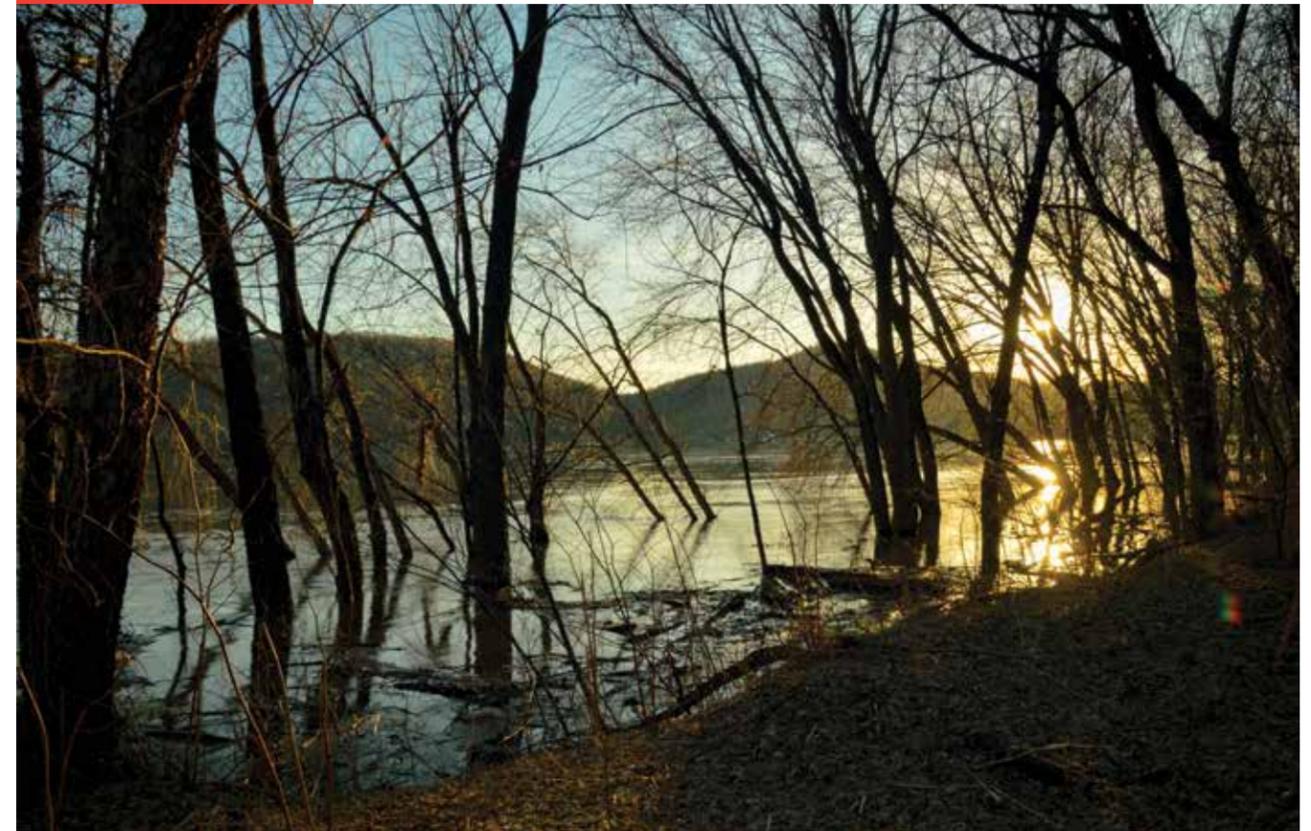
forestland, farmland, and other “open space lands” as offsets to future development. Over time, this can create new financial incentives for states and local governments to invest in land protection, and private capital markets can be developed to create greater scale in conserving and restoring lands.

- **Exploring Private Capital Investment in Conservation:** There is much interest in the potential for private sources of financing to engage in conservation and restoration. The concept is not new, but it is still an emerging market. A 2016 assessment found \$8.2 billion in global private capital committed to conservation investing, with investments doubling in recent years. This number is still dwarfed by public investments, however.<sup>18</sup> The Chesapeake Conservation Partnership and other organizations are exploring how to accelerate private investments in land conservation. A team of state and local officials, private capital investment companies, and the Partnership is developing models for using existing carbon markets to conserve valuable forest and farmlands in two counties in Virginia’s Rappahannock River Basin. In April 2019, the Alliance for the Chesapeake Bay, the Partnership, and the Land Trust Alliance convened a roundtable of private investment and restoration companies and conservationists to consider how to better synchronize private capital investment, private restoration, and land conservation going forward.

The development of new private capital markets and accelerated restoration will not happen overnight but will be necessary to achieve the scale of conservation and restoration needed.

18. Hamrick, Kelley. *State of Private Investment in Conservation 2016: A Landscape Assessment of an Emerging Market*. Ecosystem Marketplace, 2016. Available online at [https://www.forest-trends.org/wp-content/uploads/2017/03/doc\\_5477.pdf](https://www.forest-trends.org/wp-content/uploads/2017/03/doc_5477.pdf)

2018 SUCCESS STORY



Looking across the Susquehanna River toward Hellam Hills from the Northwest River Trail in Marietta, Pennsylvania  
LANCASTER CONSERVANCY/JENN TESON

### New Pennsylvania Nature Preserve

Nearly 1,000 acres along the Susquehanna River in York County, Pennsylvania, have been rescued from development and have been preserved or are under agreement in a land conservation plan that will form the Hellam Hills Nature Preserve. “It has a tremendous wild feel to it, which you can’t really find in most of the natural lands that exist here in central Pennsylvania,” said Phil Wenger, president of the Lancaster Conservancy, which will own and manage the preserve. “I just thought it would be a shame if we lost this to some kind of a major subdivision or housing project.”

The latest acquisition in this multi-year project occurred in 2018 when the Conservancy acquired 104 acres with support from the Kinsley Foundation, Pennsylvania Department of Conservation and Natural Resources (DCNR), and Brookfield Renewable. The original owner had an approved 23-lot subdivision on that tract and had been marketing it for development. Robert Kinsley, chairman of Kinsley Construction, stepped in and purchased the property to hold until the Conservancy secured funding. “We were happy to play a vital role in preserving this beautiful area of Hellam Township,

and ensuring it is protected for recreational use for generations to come,” said Kinsley. Brookfield Renewable’s donation of 200 acres in Marc Township, Lancaster County, provided the match to the Conservancy’s DCNR grant to successfully fund this project. The Conservancy plans to incorporate parking and an ADA-compliant trail on this new Hellam Hills addition.

Lancaster Conservancy previously acquired smaller properties in the area with another 817 acres under agreement. Hellam Hills Nature Preserve is primarily forested and will be open to the public for hiking, hunting, and possibly camping. The Preserve includes scenic overlooks and waterfront fishing access.

The new preserve is part of the DCNR Susquehanna Riverlands Conservation Landscape and the new Susquehanna National Heritage Area. Lancaster Conservancy currently protects 3,671 acres in the Susquehanna Riverlands through 30 different nature preserves.



Public access to open space and waterways can build personal connections that lead to engagement in conservation efforts.

CHESAPEAKE BAY PROGRAM/WILL PARSON

→ **Build Our Capacity for Using Innovative Conservation Financing:**

Land conservation is carried out by a large number of organizations and agencies spread across the watershed. But financing conservation is becoming ever more complex. We need to create opportunities to enhance collaboration and share expertise. For example, the Partnership and the Land Trust Alliance's Chesapeake Bay Land and Water Initiative will convene an intensive workshop for a cross-section of the land conservation community to become more skilled in using both public and private conservation finance programs.

**WE MUST MOVE THE PARTNERSHIP FORWARD:**

To advance Chesapeake conservation and carry this work forward, the Chesapeake Conservation Partnership must strengthen its own capacity. The Steering Committee is working on a strategic plan and on developing sources of funding for operations and for capacity building, studies, and gap-closing land acquisition funding.

**2018 SUCCESS STORY**



About 260 acres of the 372 acres protected by the conservation easement on Glenmary Farm are open fields used for hay, row crops, and pasture.

PIEDMONT ENVIRONMENTAL COUNCIL/PAULA COMBS

**Glenmary Farm in Virginia's Piedmont**

Virginia's Piedmont region is rich with history, scenery, fertile farmlands, and the upper reaches of rivers flowing to the Chesapeake. In 2018 Glenmary Farm on the Rapidan River in Orange County became a conservation success story. Owned by Tom and Kim Nixon, Glenmary Farm's agricultural history dates back to the 18th century. It is now an award-winning cattle, turkey, and grain operation.

To preserve prime farmland and help ensure continued operations, the Nixons worked with the Piedmont Environmental Council, Culpeper Soil and Water Conservation District, and the US Department of Agriculture's Natural Resources Conservation Service to permanently protect 372 acres through a conservation easement. Owner Tom Nixon put the reason succinctly: "We want our kids to be able to farm and provide for future generations."

The Glenmary Farm easement is significant because of the productive farmland, riparian protection, and wildlife habitat. About 260 acres are open fields used for hay, row crops, and pasture. About 90 acres are working forest for sustainable timber production. More than a mile of the property borders the Rapidan River, a tributary of the Rappahannock.

"In an area with increasing pressure to convert farmland into development," says Chris Miller, president of the Piedmont Environmental Council, "protecting valuable resources like Glenmary is a constructive investment by society to ensure we have soils to grow food while making progress toward more sustainable practices."



# Conclusion

From preserving Mount Vernon in 1858 to protecting tens of thousands of acres of valuable lands in 2018, the Chesapeake conservation movement has made astounding progress: over 9 million acres permanently protected; more than 2 million acres of those protected by private landowners through conservation easements; innovative state conservation funding programs, several of which have long stood as national models; and the first county in the nation (Lancaster County, Pennsylvania) to protect over 100,000 acres of farmland. Space here permits only a sampling of the many accomplishments and success stories in protecting, managing, and restoring the Chesapeake watershed.

Our conservation results so far, and those of the future, are driven by the passion of landowners, legislators, local officials, and concerned citizens. Their motivations are many: love of the land, reverence for history and culture, sustainable economic development, desire to hike or fish or hunt, health and wellness, inspiration from a beautiful vista, saving the farm, concern for the future, and threat of loss. Fundamentally, they are all vested in improving and maintaining the quality of our lives and communities.

In 2000, we set a goal to protect 20 percent of the watershed by 2010. We achieved it. In 2010, we set a second goal to protect an additional 2 million acres by 2025. At the halfway mark in time, we are already 68 percent of the way to that goal. In 2016, we set long-term goals for conserving farms, forests, habitat, heritage, and human health in the watershed—beyond 2025.

But, we now face a new urgency. Scientists around the globe warn us that action must be taken now to avert major disruptions to our quality of life. Climate change, pesticide use, and land conversion are driving dramatic declines in a wide range of species, which will create costly imbalances in the ecosystems upon which we rely for food, water, weather systems, our economies, and life itself.

It is not too late for action, but broad, concerted action must be taken now and over the next decade. Land protection is not the only solution, but scientists point to protecting 30 percent of the planet by 2030 as the essential cornerstone. Conserving

*Opposite:* Growing and sustaining this progress in Chesapeake conservation depends on engaging the next generation of conservationists.

VIRGINIA TOURISM CORPORATION/ALI ZAMAN



Preserving intact forests provides a wide range of ecosystem benefits, among them protecting the habitat needed for wildlife to survive.

NICHOLAS A. TONELLI

forests, wetlands, connected habitat and natural systems is proven to sequester carbon, enhance water quality, and create conditions for sustaining biodiversity.

Twenty-two percent (9.16 million acres) of the Chesapeake watershed is permanently protected. Over the past two years, the Chesapeake Conservation Partnership has analyzed the land protection needed to conserve farms, forests, habitat, heritage, and human health in the watershed. Protecting the most valued lands, where there are multiple conservation values, requires conserving half the watershed. Reaching 30 percent by 2030 would protect an additional 3.1 million acres. A daunting challenge? Yes, but achievable if Chesapeake partners bring existing and new resources to the effort.

Over a century ago the Chesapeake watershed faced a different dire ecological challenge. By the early 1900s, 60 to 70 percent of Chesapeake forests were gone due to intensive agriculture, logging, and other uses.<sup>19</sup> Deforestation caused devastating flooding during high rainfall events. Out of this crisis—and with the leadership of great conservationists like Pennsylvania forester Joseph Rothrock—were born the state and national forests that protect millions of acres today. And Chesapeake forests have rebounded.

Now our challenge is even greater. But the underlying principles of our response must be the same. Conserve the lands that protect our water, food, economy, health, wildlife, and quality of life.

This is achievable. Consider this: A recent study estimates the cost for conserving 30 percent of the planet by 2030 at \$100 billion annually. Author Stephen Leahy wrote: “Nearly a billion dollars was pledged to rebuild France’s Notre-Dame Cathedral less than two days after a devastating fire [in 2019]. The US Federal Reserve bank bailout in 2009 amounted to more than \$29 trillion, according to one study. A trillion is a thousand billion, so 29 trillion dollars could fund 290 years of conservation efforts that protect half the Earth and help stabilize the climate.”<sup>20</sup>

Here in the Chesapeake we must do our part—for our own well-being. This is the time for building on past success, maintaining and growing the land conservation funding programs already in place, and developing new conservation financing. All that we care about depends on concerted action.

19. Sprague, E. et al. *The State of Chesapeake Forests*. The Conservation Fund. 2006. p.16. Available online at [https://www.conservationfund.org/images/projects/files/state-of-chesapeake-forests\\_full-report.pdf](https://www.conservationfund.org/images/projects/files/state-of-chesapeake-forests_full-report.pdf)

20. Leahy, Stephen. “Half of All Land Must Be Kept in a Natural State to Protect Earth,” *National Geographic*, 2019. Available online at <https://www.nationalgeographic.com/environment/2019/04/science-study-outlines-30-percent-conservation-2030/>

2018 SUCCESS STORY



This acquisition enhances other protected lands in the vicinity. Here, the view across the James from River’s Bend looks to the shore of Dutch Gap Conservation Area. CAPITAL REGION LAND CONSERVANCY

### River’s Bend on the James

The 180-acre property that once was an 18-hole golf course could have been developed as a dense residential subdivision to enlarge the nearby community of the same name of River’s Bend. Instead the property’s owner, Riversbend Land LLC, has protected the wetlands, James River views, and one mile of shoreline with a conservation easement held by Capital Region Land Conservancy, plus provided for public access. Neil Amin, owner and easement donor, is pleased. “Having grown up in River’s Bend, I care about the future of this area and am proud to be able to help protect it and share it with the community.”

The Virginia property is important not only for its inherent values, but for how its protection will enhance other nearby conservation areas. It adjoins 144 acres of wetlands owned by Virginia Commonwealth University’s Rice Rivers Center, and a mere two parcels separate it from a 25-acre privately owned property under conservation easement with Capital Region Land Conservancy for protecting bald eagle habitat. It lies across the river from Chesterfield County’s Dutch Gap

Conservation Area, comprised of 810 acres of woods and wetlands. Presquile National Wildlife Refuge and Brown and Williamson Conservation Area are also nearby. River’s Bend is within the direct viewshed of Henricus Historical Park, a 10-acre public park interpreting the site of the English colony’s second settlement in 1611, and it is adjacent to the Captain John Smith Chesapeake National Historic Trail, the National Park Service administered water-based historical trail that follows Smith’s voyages to chart the land and waterways along the James River and Chesapeake Bay.

The newly protected River’s Bend includes 85 acres of emergent wetlands and forested or shrub wetlands. The easement’s terms include 100-foot buffer protections for the property’s mile of James River shoreline and 35-foot buffer protections for the wetland areas as well as the 11,000 feet of stream bank and 2,600 feet of pond border. The existing infrastructure of more than two miles of paths will be available for public access and will be open to the public year-round.

# APPENDIX

## STATE PROGRAMS SUPPORTING LAND PROTECTION

	Program	Brief Description
DELAWARE	<b>Land Protection Act (Open Space Program)</b>	Established in 1990 and funded through allocations from real estate transfer taxes, Delaware's Open Space Program supports permanent land protection through fee acquisition or conservation easements for natural and cultural resource protection; biological diversity; parks, forests, wildlife areas, nature preserves or other recreation sites, or cultural sites; open space and greenways; public outdoor recreation and water resource conservation.
	<b>Agricultural Lands Preservation Program</b>	Delaware's Agricultural Lands Preservation Program, established in 1991, provides for purchase of conservation easements on eligible farms within designated Agricultural Preservation Districts.
	<b>Forestland Preservation Program</b>	Delaware's Forestland Preservation Program, established in 2005, provides for purchase of conservation easements on eligible forestlands within designated Forestland Preservation Areas or Agricultural Preservation Districts.
	<b>Young Farmers Program</b>	Established in 2011, the Young Farmer Loan Program offers a 30-year, no-interest loan of up to 70% of the appraised value of the farm's development rights, not to exceed \$500,000, to help young farmers purchase farmland. Farms in the program are placed into a permanent preservation easement.
MARYLAND	Rural Legacy	Maryland's Rural Legacy Program, established in 1997, provides funding to preserve large contiguous tracts of land and to enhance natural resource, agricultural, forestry, and environmental protection while supporting a sustainable land base for natural resource-based industries. The program provides grants to local governments or land trusts with support of local government to purchase conservation easements and property in fee simple from willing landowners in designated Rural Legacy Areas.
	Program Open Space Stateside	Established in 1969 and funded through allocations from a real estate transfer tax, Program Open Space (POS) preserves natural areas for public recreation and watershed and wildlife protection through the purchase of fee-simple and easement acquisitions. Fee-simple purchases are managed as state parks, forests, and wildlife and fisheries management areas.
	Program Open Space Local	Program Open Space Local, established under the Department of Natural Resources in 1969, provides financial and technical assistance to local subdivisions for the planning, acquisition, and/or development of recreation land or open space areas.
	Maryland Agricultural Land Preservation Foundation (MALPF)	Created by the General Assembly in 1977, MALPF purchases agricultural preservation easements that forever restrict development on prime farmland and woodland.
NEW YORK	<b>Environmental Protection Fund</b>	Created by the legislature in 1993, New York's Environmental Protection Fund (EPF) is financed primarily through a dedicated portion of real estate transfer taxes. Three EPF programs support land protection, as follows:
	<ul style="list-style-type: none"> <li>Open Space Program</li> </ul>	Title 7 of the EPF allocates funds to the Department of Environmental Conservation and the Office of Parks, Recreation and Historic Preservation for purchase of land to be included in the Forest Preserve, State Parks, State Nature and Historical Preserve, State Historic Sites, Unique Areas, and other categories.
	<ul style="list-style-type: none"> <li>Agricultural and Farmland Protection Program</li> </ul>	The Agricultural and Farmland Protection Program encourages further development of agriculture and farmland through three grant programs, including the Farmland Implementation Grants Program (FIG), which assists counties, municipalities, soil and water conservation districts, and land trusts in implementing farmland protection plans through purchase of conservation easements and other mechanisms.
	<ul style="list-style-type: none"> <li>Parks, Recreation and Historic Preservation</li> </ul>	Title 9 of the EPF provides grants for local governments and not-for-profit organizations to purchase park lands or historic resources as well as to develop and preserve these resources. Priority projects are compiled from recommendations of regional advisory committees into the state's Open Space Conservation Plan.
	<b>Water Infrastructure Improvement Act</b>	New York State appropriated \$2.5 billion from bonded capital in 2017 to support clean water projects over a 5- to 6-year period. One sub-element supports land protection.
	<ul style="list-style-type: none"> <li>Source Water Protection</li> </ul>	The 2017 \$2.5 billion appropriation includes \$110 million for land acquisition projects for source water protection pursuant to title 33 of article 15 of the environmental conservation law.

	Program	Brief Description
PENNSYLVANIA	<b>Keystone Recreation, Park and Conservation Fund (DCNR)</b>	In 1993, the General Assembly established the Keystone Recreation, Park and Conservation Fund and its dedicated funding source, a 15% share of the state's realty transfer tax. By law, 65% of Keystone Fund transfer tax allocations go to the Department of Conservation and Natural Resources (DCNR) for three programs involved in land protection, as follows:
	<ul style="list-style-type: none"> <li>Park and Forest Facility Rehabilitation</li> </ul>	30% of Keystone allocations support rehabilitation and upgrades to state park and forestry infrastructure, though limited portions may be directed to rails-to-trails projects and rivers protection and conservation projects.
	<ul style="list-style-type: none"> <li>Grants for Land Trusts</li> </ul>	No less than 10% of Keystone allocations is to be provided to land trusts for natural areas and open space planning and acquisition.
	<ul style="list-style-type: none"> <li>Grants for Local Recreation</li> </ul>	25% of Keystone allocations are used to provide grants for local recreation initiatives, such as ballparks and playgrounds, which may include land acquisition.
	<b>Oil and Gas Lease Fund (DCNR allocation)</b>	Revenues from lease sales on state forest lands and rents and royalties generated from production go to the Oil and Gas Lease Fund. The fund was created in 1955 to be used for conservation, recreation, and flood control programs. Funds have been used to purchase state park lands, acquire mineral rights for state parks and forests, infrastructure and trail improvements, habitat protection and restoration, recreation and other equipment, and to support the operations of the Department of Conservation and Natural Resources.
	<b>Environmental Stewardship Fund (DCNR allocation)</b>	A dedicated fund, created in 2002 for environmental restoration and conservation and community revitalization projects, is financed from an increase in landfill tipping fees and bond initiatives. By law, funds from the ESF are distributed as follows: 14.8% to Department of Agriculture for farmland preservation, 37.4% to Department of Environmental Protection to clean up acid mine drainage and support watershed-based conservation efforts, 24.1% to Department of Conservation and Natural Resources for rehabilitation of state parks and forests and grants to local governments and nonprofits for open space protection and recreation projects, and 23.7% to PennVEST for water and wastewater treatment facilities.
	<b>Farmland Preservation</b>	The Pennsylvania Agricultural Conservation Easement Purchase Program was established in 1988 and supports county and local governments in purchasing conservation easements from farm owners. Dedicated state funding comes through a state cigarette tax and Environmental Stewardship Fund allocations. State allocations are often matched by county funds and the federal Agricultural Conservation Easement Program.
	<b>Marcellus Legacy Fund</b>	The Marcellus Legacy Fund was created by Act 13 of 2012 to provide for distribution of unconventional gas well impact fees to counties, municipalities, and commonwealth agencies. A portion of the fee revenue is transferred to the Commonwealth Financing Authority for statewide initiatives that include abandoned mine drainage abatement; abandoned well plugging; sewage treatment; greenways, trails and recreation; baseline water quality data; watershed restoration; and flood control.
	<ul style="list-style-type: none"> <li>Greenways, Trails and Recreation Program</li> </ul>	Financed by Marcellus Legacy Fund distributions, the Commonwealth Financing Authority provides grants for planning, acquisition, development, rehabilitation, and repair of greenways, recreational trails, open space, parks, and beautification projects.
	<ul style="list-style-type: none"> <li>Watershed Restoration and Protection Program</li> </ul>	Financed by Marcellus Legacy Fund distributions, the Commonwealth Financing Authority provides grants through the Watershed Restoration and Protection Program for projects aimed to restore and maintain restored stream reaches impaired by the uncontrolled discharge of nonpoint source polluted runoff.
<b>Mitigation Funds</b>	This program is not active yet.	

FEDERAL PROGRAMS SUPPORTING LAND PROTECTION

	Program	Brief Description
VIRGINIA	<b>Land Preservation Tax Credit</b>	Virginia allows an income tax credit for 40% of the value of donated land or conservation easements. Taxpayers may use up to \$20,000 per year through 2020 and \$50,000 per year in subsequent tax years. Easements must qualify as a charitable deduction under the IRS Code and meet additional requirements under the Virginia Land Conservation Incentives Act. This is not money paid out but is money not collected through taxes.
	<b>Virginia Outdoors Foundation Operations</b>	The Virginia Outdoors Foundation (VOF) was created by the General Assembly in 1966 to promote the preservation of open-space lands and to encourage private gifts of money, securities, land, or other property to preserve the natural, scenic, historic, scientific, open space, and recreational areas of the commonwealth. VOF receives a general fund appropriation and other state financing to support operations.
	<b>Virginia Outdoors Foundation Preservation Trust Fund</b>	In 1997, the General Assembly created the Open-Space Lands Preservation Trust Fund (PTF) to help with costs of conveying an open-space or conservation easement. The program, administered by the Virginia Outdoors Foundation, may cover costs such as fees charged by VOF, attorneys, and appraisers. In addition, localities may apply for assistance to jumpstart new programs for the purchase of development rights or to support existing programs.
	<b>Virginia Land Conservation Foundation (and Fund)</b>	Established in 1999 by the General Assembly, the Virginia Land Conservation Foundation helps fund land conservation efforts across the Commonwealth. The foundation manages the Virginia Land Conservation Fund, which gets funding from the state's annual budget. Grants are awarded for purchase of permanent conservation easements, open spaces, and parklands; lands of historic or cultural significance; farmlands and forests; and natural areas. State agencies, local governments, public bodies, and registered (tax-exempt) nonprofit groups are eligible to receive matching grants from the foundation for state-funded grant rounds.
	<b>Battlefield Preservation Fund</b>	In 2010, the General Assembly established a permanent Civil War Site Preservation Fund to assist in the preservation of battlefield lands. The fund was expanded—and renamed the Virginia Battlefield Preservation Fund—by the General Assembly in 2015 to include battlefields also associated with the Revolutionary War and the War of 1812. Funded grants can be applied to protecting battlefield lands by either fee-simple purchase or conservation easement.
	<b>Farmland Preservation Fund</b>	In 2008, the General Assembly established the Virginia Farmland Preservation Fund to provide 1:1 matching grants for county purchase of development rights (PDR) on eligible farmlands. Counties with established PDR programs may apply for matching funds.
	<b>Restricted One-time Mitigation Funds</b>	Various entities including the Virginia Outdoors Foundation and the Virginia Land Conservation Foundation receive one-time funds resulting from settlements to mitigate direct impacts to natural and/or cultural resources. Recent mitigation funds resulted from: DuPont Settlement, Surry-Skiffes Creek Mitigation, and Mountain Valley Pipeline Mitigation. Funds are restricted for certain purposes and geographies.
	WEST VIRGINIA	<b>Farmland Protection Program</b>
<b>Outdoor Heritage Conservation Fund Grant Program</b>		Administered by an independent board within the Department of Commerce, the Outdoor Heritage Conservation Fund (OHCF) grants for land conservation (fee acquisition and easements) to land trusts and certain governmental bodies. State contributions to the fund are financed by a statewide real estate document recording fee, split equally between the Fund and Agricultural Land Protection Authority (see above). The OHCF allocation is further divided equally between the grants program and support for WV Department of Natural Resources acquisitions.
<b>Outdoor Heritage Conservation Fund/DNR Funding</b>		See description above.
<b>DNR Wildlife Resources Land Acquisition</b>		West Virginia Department of Natural Resources makes fee simple and conservation easement purchases to provide for parks and wildlife management areas. State funding for acquisitions is provided by revenues from a conservation stamp for hunting and fishing licenses.
<b>In-Lieu Fee Program (Mitigation Funds)</b>		Administered by the Department of Environmental Protection, the In-Lieu Fee Program receives funding from project developers for mitigating regulated impacts to streams and wetlands. Most funding goes to restoration and management of streams and wetlands but a portion goes to acquisition of conservation easements and fee interests of lands being restored and managed. Project proposals must meet criteria for addressing impacts within a given watershed. Restoration and acquisition are pooled together.

Program	Brief Description
<b>Land and Water Conservation Fund (LWCF) Federal</b>	LWCF was established in 1964 to safeguard natural areas, water resources, and cultural heritage, and provide recreation opportunities. The fund invests earnings from offshore oil and gas leasing based on annual appropriations from Congress. LWCF Federal is used to acquire lands, waters, and interests therein to achieve the natural, cultural, wildlife, and recreation management objectives of federal land management agencies, principally the National Park Service, US Fish and Wildlife Service, Bureau of Land Management, and USDA Forest Service.
<b>Land and Water Conservation Fund (LWCF) Stateside</b>	LWCF Stateside allocates funds based on a formula to all US states and territories. Over 40,000 grants to states and localities have been approved under the LWCF grants program for acquisition, development, and planning of outdoor recreation opportunities in the United States.
<b>Forest Legacy</b>	The Forest Legacy Program (FLP), established in 1990, is administered by the US Forest Service in partnership with state agencies to encourage protection of privately owned forest lands through conservation easements or land purchases. FLP provides grants to states for the acquisitions. The program is funded by the Land and Water Conservation Fund.
<b>North American Wetlands Conservation Act (NAWCA)</b>	The NAWCA program provides matching grants to wetlands conservation projects in the United States, Canada, and Mexico to increase bird populations and wetland habitat. Program funding comes from appropriations, fines, penalties, and forfeitures; and from interest accrued on the fund.
<b>National Coastal Wetlands Conservation</b>	The National Coastal Wetlands Conservation Grant Program, administered by the US Fish and Wildlife Service, annually provides grants of up to \$1 million to coastal and Great Lakes states, as well as US territories to protect, restore, and enhance coastal wetland ecosystems and associated uplands. The grants are funded through the Sport Fish Restoration and Boating Trust Fund, which is supported by excise taxes on fishing equipment and motorboat fuel.
<b>Farm Bill Programs</b>	
<ul style="list-style-type: none"> <li>● Agricultural Conservation Easement Program (ACEP)</li> </ul>	ACEP, administered by the USDA Natural Resources Conservation Service (NRCS), provides financial assistance to conserve agricultural lands and wetlands through conservation easements. Under the Agricultural Land Easements component, NRCS helps American Indian tribes, state and local governments, and nongovernmental organizations protect working agricultural lands. Under the Wetlands Reserve Easements component, NRCS helps restore, protect, and enhance enrolled wetlands. ACEP is funded through Farm Bill allocations.
<ul style="list-style-type: none"> <li>● Regional Conservation Partnership Program (RCPP)</li> </ul>	The 2018 Farm Bill reconfigures RCPP as a standalone program with its own funding and producer contracts. RCPP projects still include conservation activities associated with other USDA programs, such as the Environmental Quality Incentives Program, Conservation Stewardship Program, Agricultural Conservation Easement Program, Healthy Forests Reserve Program, PL 83-566 Watershed Program, and the Conservation Reserve Program. A 2019 RCPP funding announcement will describe how RCPP interacts with these other programs through RCPP contracts.
<b>DoD Readiness and Environmental Protection Integration (REPI)</b>	The Department of Defense REPI program provides funding to military services to partner with conservation organizations and community groups to preserve land in order to relieve encroachment pressures at military ranges and installations. Funds are from congressional appropriations.

## CHESAPEAKE CONSERVATION PARTNERSHIP STEERING COMMITTEE

The Chesapeake Conservation Partnership is a coalition of diverse organizations and agencies engaged in land conservation and related fields in the Chesapeake Bay watershed. At the time of issuing this report, the Partnership's Steering Committee includes:

Hedrick Belin, Potomac Conservancy  
Sally Claggett, USDA Forest Service  
Jonathan Doherty, National Park Service  
Heidi Dudderar, Maryland Department of Natural Resources  
Joel Dunn, Chesapeake Conservancy, Convener  
Jim Edward, US Environmental Protection Agency  
Jennifer Miller Herzog, Land Trust Alliance  
Lauren Imgrund, Pennsylvania Department of Conservation and Natural Resources  
Genevieve LaRouche, US Fish and Wildlife Service  
Chris Miller, Piedmont Environmental Council  
Mark Platts, Susquehanna Heritage  
John Reynolds, Chesapeake Conservancy; Fort Monroe Authority  
Joshua Saks, Virginia Office of the Governor  
Kristin Saunders, University of Maryland Center for Environmental Science  
Ann Swanson, Chesapeake Bay Commission  
Sharee Williamson, National Trust for Historic Preservation

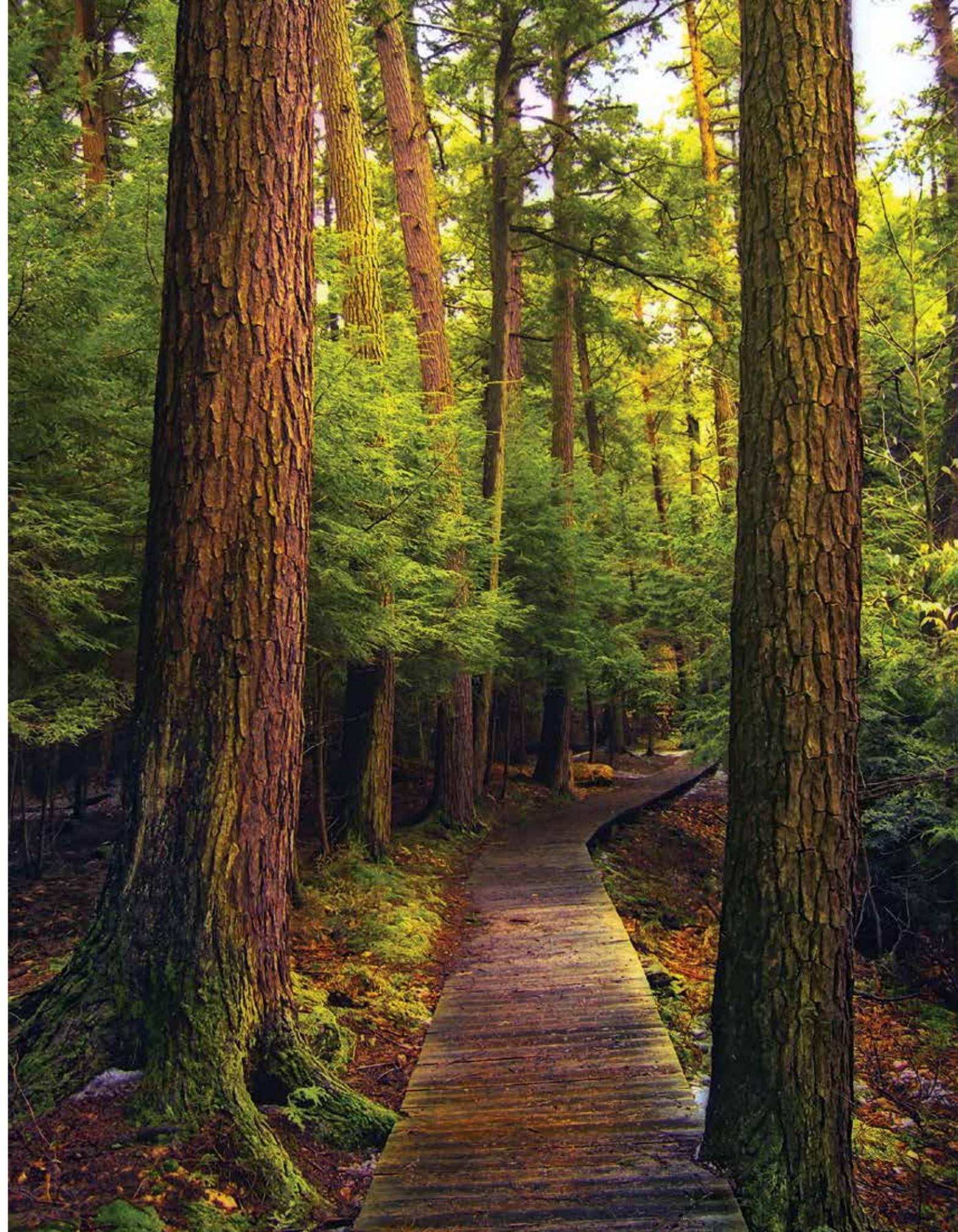
More information about the Partnership is available at [www.chesapeakeconservation.org](http://www.chesapeakeconservation.org) or contact John Griffin, Program Manager, [jgriffin@chesapeakeconservation.org](mailto:jgriffin@chesapeakeconservation.org), 443-261-2378.

## MARKING MILESTONES REPORT TEAM

John Griffin, Program Manager  
Editor: Paula Degen  
Design: DesignMa: Maria Habib and Patricia Gunn  
Jonathan Doherty  
Jessi Hammond  
Jake Leizear  
Drew Pizzala  
Renee Thompson

*Opposite:* Conserving the Chesapeake landscape happens step, by step, every day of every year, ensuring treasures like this grove of trees are there for all of us. Our successes clean our air, provide our fresh water, and give us places to walk and cherish our heritage. Salt Springs State Park, Pennsylvania

NICHOLAS A. TONELLI





*“ Conservation is a cause that has no end;  
there is no point at which we will say our  
work is finished. ”*

— RACHEL CARSON