



Farm in Queen Anne's County, MD. Photo Courtesy Middleton Evans.

I. Introduction

In 2015, we stand at a critical juncture relative to land protection in the Chesapeake watershed. Support for watershed restoration is greater than ever and state jurisdictions and federal agencies are now in agreement through the Chesapeake Bay Watershed Agreement that a goal of protecting an additional two million acres by 2025 is achievable. At the same time, the watershed's 18 million residents are placing increasing demands on the region's energy infrastructure and land use. This vast watershed is home to steadily growing urban areas as well as some of the nation's most heavily utilized national parks, forests and waterways. Pressure on land and water resources necessitates consistent funding and support for conservation to ensure the long-term sustainability of the region's ecological systems, cultural heritage and economic growth. The Watershed Agreement, among other goals, promises two million new acres protected by 2025. The Chesapeake Bay Program defines protected lands as lands that are permanently protected from development, whether by purchase, donation, a perpetual conservation or open space easement, or fee ownership for their cultural, historical, ecological or agricultural value.

Successful coordination and effort among partners to achieve this goal is possible due to the alignment of a number of factors:

- A solid resource conservation precedent over the past 150 years has laid the groundwork for the increased alignment, resources and focus required to successfully implement this management strategy.
- A strong and growing network of conservation-minded partners, the Chesapeake Conservation Partnership (the Partnership), born in the early years of implementing Executive Order 13508, is positioned to lead the charge. This coalition of jurisdictions, agencies and non-profit organizations provides a tremendous opportunity to align and leverage organizations, priorities, and funding sources in new ways. The organizations that make up the Partnership are described in greater detail below.

The Watershed Agreement supports even greater alignment in favor of land conservation partners, through mutually-supportive strategies that support healthy watersheds, citizen stewardship, environmental literacy, recreation, species and habitat protection, and working lands. Continued engagement with these groups promises that land conservation will become part of the public dialog around related water quality and watershed restoration efforts.

Measuring land conservation success goes beyond achieving the two million acre goal. Successfully protecting and sustaining new acreage requires tapping innovative funding mechanisms and data technologies, encouraging collaboration and increasing public engagement and stewardship. The management strategy outlined in this document is a vehicle to amplify the work of the Partnership and a growing network of local, regional, and watershed conservation interests in a long term and meaningful way. It is also a call to action for a paradigm shift in how we think about the impact of conservation on our quality of life and economic well-being as well as the Bay's fragile ecosystem, especially in a changing climate.

II. Goal, Outcome and Baseline

This management strategy identifies approaches for achieving the following goal and outcome:



Land Conservation Goal

Conserve landscapes treasured by citizens in order to maintain water quality and habitat; sustain working forests, farms and maritime communities; and conserve lands of biological, cultural, indigenous and community value.

Land Conservation Outcome

By 2025, **protect an additional two million acres** of lands 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 forest land of highest value for maintaining water quality.

Baseline and Current Condition

This measure builds on a **baseline in 2010 of 7.8 million acres**. As of the end of 2013, approximately 8.37 million acres of land—approximately 21 percent of the land in the Chesapeake Bay watershed—

have been permanently protected from development. This marks an achievement of 29 percent of the goal to protect an additional two million acres of land throughout the watershed since 2010.

III. Participating Partners

The following partners have participated in the development of this strategy. A workplan to accompany this management strategy will be completed within six months after this document is finalized. It will identify specific partner commitments for implementing the strategy.

Chesapeake Bay Watershed Agreement Signatories

- Chesapeake Bay Commission
- State of Delaware: Delaware Department of Natural Resources and Environmental Control
- State of Maryland: Maryland Department of Natural Resources, Maryland Department of Planning, Maryland Environmental Trust, Maryland Historical Trust
- Commonwealth of Pennsylvania: Pennsylvania Department of Conservation and Natural Resources
- State of New York: New York State Office of Parks, Recreation and Historic Preservation, New York State Department of Environmental Conservation
- State of Virginia: Virginia Department of Conservation and Recreation, Virginia Department of Forestry, Virginia Department of Historic Resources

Other Key Participants

The Chesapeake Conservation Partnership, a regional coalition of over 50 diverse organizations throughout the watershed, has primarily guided and advanced the development of this strategy. The Partnership is comprised of representatives from the seven watershed jurisdictions including federal and state agencies, tribes, land trusts and conservation-focused NGOs. A complete list of participants is available at: www.chesapeakeconservation.org

Local Engagement

On-the-ground efforts of local governments and local land trusts are vital to achieving the Protected Lands outcome. Local governance varies significantly across the watershed in structure, policy, and capacity, and this Strategy recognizes that flexible, locally adapted approaches are needed to achieve the two million acre goal. Following sections of this Strategy identify key needs and management strategies related to local engagement, which will be detailed more fully when the Biennial Workplan is developed. These efforts will be closely coordinated with the Local Government Advisory Committee, the Diversity Action Team, and local organizations engaged in the Chesapeake Conservation Partnership.

The following is a non-comprehensive list of the national, regional and local organizations engaged in the Partnership which will be involved in implementation of the management strategy.

- Accokeek Foundation
- American Farmland Trust
- Appalachian Trail Conservancy
- Cacapon-Lost Rivers Land Trust
- Chesapeake Conservancy

- Chickahominy Indian Tribe
- Eastern Shore Land Conservancy
- James River Association
- Journey Through Hallowed Ground Partnership
- Journey Through Hallowed Ground Heritage Area
- Lancaster County Conservancy
- Land Trust Alliance
- Living Landscape Observer
- Maryland Environmental Trust
- Maryland Commission on Indian Affairs
- National Parks Conservation Association
- National Trust for Historic Preservation
- NatureServe
- Otsego Land Trust
- Piedmont Environmental Council
- Piscataway-Conoy Tribe
- Potomac Conservancy
- Shenandoah Valley Battlefields Foundation
- Susquehanna Gateway Heritage Area
- The Conservation Fund
- The Nature Conservancy
- Trust for Public Land
- Virginia Environmental Endowment
- Virginia Outdoors Foundation
- Wildlife Management Institute

IV. Factors Influencing Success

The following are natural and human factors that influence the abilities of the Partnership and its participants to attain this outcome:

1. Changes in Land Use

As the watershed's population increases and shifts, new development pressures, including transportation and energy infrastructure as well as new housing and commercial development, are dramatically changing the landscape in some areas.

New energy infrastructure poses a significant challenge to protecting contiguous geographic and cultural corridors. Energy and infrastructure development such as pipelines can have detrimental impacts on cultural and natural resources. On the other hand, pressures on land use create opportunities for dialog and decision-making that can lead to smart land use to protect the most ecologically and culturally valuable lands, and to mitigate when impacts are unavoidable.

When mitigation, or sound land-use planning, makes protected land accessible for recreation, it can motivate public advocacy for further protection measures and increase demand for more protected

area easily accessible to urban areas. Increased public awareness for conservation can strengthen progress towards our goal.

2. Public Support for Conservation

Land conservation faces definitional, attitudinal and political messaging challenges as well as difficulties with generational transfers of land ownership. Opposition to growth management and land controls can be problematic. Changing demographics require outreach to youth, urban populations and underserved groups not traditionally engaged in land conservation. Some misunderstand the value of protected land to improving water quality, increasing food security, creating outdoor recreation opportunities and generating economic development.

Attitudes toward land conservation vary, requiring a tailored approach to education, public engagement, public policy and advocacy that responds to particular regional conservation needs and opportunities. With shifting demographics in the watershed, it is necessary to consider ways to connect young people, urban populations and underrepresented groups to broaden support.

Political support across all levels of government plays a critical role in achieving the Protected Lands Outcome. Recent state administrations have provided tremendous support. Additionally, voluntary jurisdictional coordination with the federal agencies on land conservation priorities has increased steadily with implementation of Executive Order 13508, culminating in the jurisdictions themselves adopting the same two million acre conservation outcome.

3. Funding and Incentives for Conservation

Competition for limited federal and state funding for land conservation has increased in recent years. This is a result of decreases in dedicated funding sources and less than optimal alignment of existing resources, which come in many forms, such as tax incentives, credits, grants and sales. Comparatively high land prices in the watershed also stretch limited resources.

Funding available at the federal and state levels for land conservation could be better aligned with funding for working lands, recreation, water quality, biological diversity and related efforts to increase the overall pool of funding available. The private sector, including donors, foundations and landowners interested in preserving their property's heritage or scenic value, presents opportunities for funding and stewardship that could be better leveraged with limited public resources.

4. Ownership Patterns and Fragmentation

As the watershed's resident population grows and shifts toward urban areas, land values increase near commercial centers. As competition for economically viable use of the land intensifies, the incentives and pressures to develop compete with the values that support conservation.

Land ownership in the Eastern United States is also more fragmented than in the West, due to older settlement and development patterns, relatively smaller parcels and higher percentage of privately-owned land. As a result it takes greater communication, consensus-building and cooperation to protect contiguous parcels.

The region has a long history of coordinating efforts across jurisdictional boundaries through initiatives such as landscape restoration, heritage areas and other cultural landscapes as well as innovative tax incentive and open space programs. Momentum around land conservation at the

landscape scale is increasing through voluntary partnerships such as the Journey Through Hallowed Ground Partnership, Pennsylvania’s Conservation Landscape Initiative and others. A strong legacy of land protection precedes our efforts and continues to grow.

5. **Managing Protected Areas**

As land is protected, managers and funders must address strategies for supporting long-term management. Funding for maintenance of existing public lands is often limited. Privately-held easements also require monitoring, which can become more complicated as the land transfers to second generation landowners. Technical and financial assistance can build the capacity of local land trusts and volunteers to manage and monitor protected areas. Designations such as heritage areas, public-private co-management arrangements, stewardship funds and innovative citizen engagement tools such as adoption programs could also expand maintenance capacities and increase general funding levels for managing public lands.

6. **Climate Change**

Climate change and climate-induced disasters impact land conservation by changing the viability of shoreline and low elevation parcels for protection as well as development. Shifting temperature and precipitation regimes impact upland areas by shifting native species patterns and increasing invasive species. The watershed is already experiencing sea level rise at twice the national rate, which threatens prospective and existing conservation easements on public and private lands. A changing climate also places ecologically and culturally significant places at risk. It requires that conservation priorities consider and plan for changing species and habitat migration patterns resulting from changing temperatures and water regimes. Climate change projections influence land protection opportunities. A changing climate also requires the creation of resiliency and disaster management plans for existing conserved lands, with landowners absorbing the additional cost and management responsibilities.

Land protection is complicated by a changing climate. It is also one of many tools that can offset the impacts of climate change. In particular, undeveloped shoreline mitigates rising tides and can allow the surrounding ecosystem to adapt to changes in the coastline.

V. **Current Efforts and Gaps**

Watershed jurisdictions, organizations and partners have made significant progress through collaboration to conserve land and build a stewardship ethic to maintain it. Efforts to increase the quantity and quality of land conservation, especially over the past five years, include:

Improving the Quality, Quantity and Accessibility of Conservation Priority Data

LandScope Chesapeake, developed in response to actions laid out in the 2010 *Strategy for Protecting and Restoring the Chesapeake Bay Watershed*, was launched in 2012 as a platform for gathering data layers representing various conservation values and priorities. This tool now contains over 200 layers and continues to build in new data and tools. It provides a central, watershed-wide clearinghouse for mapping data, with over 200 cultural, natural and recreational resource data layers. LandScope Chesapeake is administered by NatureServe in collaboration with many Chesapeake Conservation Partnership members.

This powerful tool makes data-driven prioritization of land protection more accessible than ever and highlights the cross-jurisdictional nature of priority-setting informed by the multiple conservation values that inspire land conservation.

The quality and quantity of conservation priority data varies by jurisdiction, and by resource type. Data on cultural resource priorities in particular lacks accuracy or has not been digitized. Some local and regional conservation priority datasets may not be reflected in LandScope at present, but additional datasets are being added as they become available. Data requires regular updating with improvements to technology, new information, changing landscape conditions and other factors, issues not unique to conservation.

As states move toward adoption of the standard Protected Areas Database (PAD_US) data set for documenting and tracking progress, this user-friendly platform is poised to support a more focused conservation progress and tracking effort moving forward. Steady funding and capacity is needed to create and update data and to support maintenance of many forms of data that feed land conservation priorities.

There are other online systems in addition to LandScope Chesapeake that provide conservation prioritization tools or priorities data. Many of these tools provide access to focused applications aimed at assisting with specific conservation decisions. In many cases these targeted applications provide easy access to data and analytical capabilities aimed at particular use cases. Web-based mapping applications are evolving to address these use cases using data and services published by partners throughout the watershed. With the transition to web-based map services, there is greater potential to link LandScope and these various systems to ensure optimal accessibility to data and tools across systems.

Aligning Land Conservation Priorities with Funding Opportunities

A single, integrated, customized watershed-wide conservation priority and ranking system is attractive. Consistent baseline data and criteria for identifying conservation priorities could encourage more informed decision-making across jurisdictions. Currently, funding programs and priorities vary by jurisdiction and are often driven by policies set in legislation. Local and regional initiatives may wish or need to set unique criteria or policies. Technological considerations often favor lightweight, focused tools. LandScope can complement many of these applications through cross-platform data and services integration, supporting greater access to data and encouraging greater consistency in data collection and maintenance over time.

The broad range of conservation priority layers in LandScope Chesapeake can inform priority setting and alignment at various levels. In particular, identifying conservation projects in locations where multiple values and potential funding sources intersect can maximize opportunities for leveraging resources. The Partnership can also continue to identify and aggregate the conservation priorities of organizations within the watershed.

Building the Land Conservation Community

The Chesapeake Conservation Partnership can provide a platform for diverse conservation-minded partners, from federal agencies to local land trusts, to convene, discuss and act on land conservation priorities. Greater participation by the private sector and local jurisdictions and organizations,

especially in urban settings, can enable the land conservation community to expand its scope, capacity and effectiveness. As it evolves, the Partnership can also offer organizations with varied conservation missions more ways to establish mutually beneficial personal and professional relationships.

The Partnership, or individual participating organizations, could undertake private sector fundraising, work with local jurisdictions to encourage smart growth, and offer training and assistance to landowners and local stewardship organizations to increase the breadth and commitment of these groups to protecting and managing the places that are important to them. Already, active public and private sector participation and buy-in to formalize the Partnership and add staffing capacity have created a strong foundation for increasing the effectiveness of the group's communications, advocacy and fundraising capabilities over time.

Developing the Capacity and Tools for Restoring, Protecting and Managing Landscapes

While over 170 land trusts currently exist in the watershed, many have no or limited staff support. In early 2015, the Land Trust Alliance initiated a Chesapeake Bay Watershed Land Trust Assessment Study. The results help focus future investment in training and tools that support organizational development and capacity-building, strategic conservation planning, and increase the efficiency and effectiveness of existing and new land trusts. Tools and assistance may include business and financial planning, legal assistance, and knowledge and expertise.

In addition, the conservation community must increasingly focus on management of already conserved lands, including planning for climate change. This requires the development of disaster management and climate adaptation plans, engaging technical experts, and seeking sustainable solutions to ensure long term protection.

Expanding Federal, State and Local Funding and Incentives for Conservation

Federal, state, and local government as well as non-profit sources can be leveraged to complete conservation transactions. Recent successes include alignment of federal, state and private funding for land conservation along the Journey Through Hallowed Ground National Scenic Byway in support of their initiative to plant 620,000 trees through four states, the Nanticoke River in Maryland and Delaware; and the Rivers of the Chesapeake Land and Water Conservation Fund (LWCF) collaborative funding proposal, which has aligned a constituency of conservation partners across five states in a bigger way than ever before.

Conveying the social and economic benefits of land conservation, aligning funding sources with related initiatives and prioritizing conservation needs in response to changing budgets and political climate continues to remain a challenge. Dedicated funding streams for land conservation are not always secure, especially in tight budget years; vigilance is required to sustain these funds. In some jurisdictions lack of dedicated funding streams limits impact. Land conservation is not credited towards reductions in the Bay jurisdictions' annual pollution reduction progress reporting. However, land conservation may be able to generate credits for use in compliance trades and/or as offsets for new loads.

There may also be opportunities to quantify and incorporate conservation practices into the Chesapeake Bay Program decision support system and to explore how land use projections might be

used to quantify future pollutant load reduction incentives for land conservation. There are other opportunities for expanding or creating new land conservation funding streams, including local ballot measures and creating a mitigation fund. Elected officials continue to need to be informed about the value of land conservation. Consistent messaging and advocacy that is both more coordinated and more vocal could improve support for funding and incentives.

Increasing Public Support for Land Conservation

Articulating conservation values through the lens of publicly held values such as health, safety and welfare can increase public support for land conservation. Tailoring the conservation message to support clean water, battlefield protection or recreation can also build a constituency in favor of conservation and even motivate behavior change. A first step in increasing public support for conservation is to assess and understand how support varies locally across the watershed, and then develop watershed, regional and local strategies that work for the local conservation community.

Consistent, persistent education and outreach to legislators and local government officials about the social and economic benefits of conservation is also vital to increasing public support for it. Coordinated, targeted outreach works; for example, interagency, inter-jurisdictional Rivers of the Chesapeake LWCF proposals have rallied over 30 congressional representatives and four governors in support of funding for land conservation. At the local level, ballot measures on the heels of a public campaign have successfully rallied residents to support waterfront parkland. Land conservation should be an integral component of state and local planning efforts, but as a reflection of underlying public and political support.

Consistent and targeted messaging that recognizes and responds to the range of public motivations for supporting land protection is critical to increasing public support for land conservation.

Advancing Youth Engagement and Citizen Stewardship

Experiential learning, through the Chesapeake Conservation Corps (CCC), Youth Conservation Corps (YCC), citizen water quality monitoring and all-ages field trips offer opportunities for residents to reflect on their personal connection to the Bay. Increasingly, jurisdictions are requiring environmental literacy through classroom and field-based learning experiences. Integrating conservation messages into existing environmental literacy and citizen stewardship efforts is one way to advance engagement in and stewardship of the Bay's special places.

Environmental literacy should encourage youth and their parents to probe why conservation matters to them and their surroundings. Lesson plans and activities could advance resource identification and documentation; probe perspectives about the landscape; and foster an improved understanding of related knowledge areas. Outreach to underrepresented communities, urban populations and communities that rely on natural resources for sustenance and recreation is increasing but could be better funded, and more targeted and consistent. Increasing the accessibility of place-based experiences, that gradually, and non-threateningly introduce new audiences to the outdoors may relieve negative perceptions about recreation and build recognition for the value of open, undeveloped spaces.

VI. Management Approaches

The Partnership will collaborate with local partners to carry out the following actions and strategies to achieve or exceed the Protected Lands Goal. These approaches seek to address the factors affecting our ability to meet the goal and the gaps identified above.

Increase funding, incentives, and mechanisms for protecting conservation priorities - Leverage conservation data and multiple resource values to realign and expand funding options. Promote and defend new and existing state and federal policies and investments in land protection.

Collaboratively identify strategic conservation priorities - Aggregate the geographic conservation priorities of partner organizations across the watershed to identify shared priorities.

Identify, fund and implement creative and inclusive ways to acquire data and connect systems - Improve the quality, quantity and accessibility of conservation priority data, data-sharing and platform integration to make smarter decisions about where to focus conservation efforts.

Increase the capacity and effectiveness of land trusts - Increase the capacity of land trusts to conserve additional acres and be more strategic in their efforts.

Increase public support for and engagement in land conservation - Understand the current state of public support and identify opportunities to increase awareness and understanding about land conservation benefits. Educate key constituencies, including underserved communities, on conservation and land use. Increase political support by voters and legislators. Build a new generation of land stewards across rural and urban areas alike.

Build an active network of land conservation organizations in the Bay - Increase collaboration between organizations within the Chesapeake Conservation Partnership to achieve a greater collective impact toward the two million acre goal.

Cross-Outcome Collaboration and Multiple Benefits

The partners responsible for implementing this strategy will collaborate with other Goal Implementation Teams (GITs) including:

- Vital Habitats
 - Wetlands
 - Forest Buffer
- Stewardship
 - Diversity
- Land Conservation
 - Land Use Methods and Metrics Development
 - Land Use Options Evaluation
- Public Access
- Environmental Literacy
- Climate Resiliency
- Healthy Watersheds

VII. Monitoring Progress

Current monitoring programs

A process for monitoring progress toward the Protected Lands Outcome was put in place in 2011. This replaced a prior tabular tracking process used from 2000 to 2010 for portions of the watershed with a Geographic Information System (GIS) based approach for the entire watershed.

The current monitoring process, coordinated by the National Park Service (NPS), US Geological Survey (USGS) and NatureServe, involves the following steps:

- On a biennial basis a comprehensive watershed-wide GIS dataset of protected lands is compiled from a series of individual datasets provided primarily by watershed states; additional data is acquired from the PAD_US and National Conservation Easement Dataset (NCED). The change in protected lands is calculated in comparison with the previous biennial dataset.
- The comprehensive watershed dataset is published through the Bay Program for incorporation into LandScope Chesapeake, which also incorporates a tool for calculating land protection statistics by jurisdiction and watershed.
- The results are reported to the Bay Program and land conservation partners.

New or proposed monitoring approaches

Several improvements are planned and required in this process. The states have adopted the PAD_US data standards to move toward a single comprehensive statewide dataset and to ensure consistency across the watershed, however most states require additional resources to accomplish this.

LandScope Chesapeake launched a newly re-engineered system in October 2014 allowing the system to consume datasets directly from sources published to the internet. Once comprehensive, regularly updated state datasets are in place, the new LandScope system will speed the reporting process significantly.

The next formal reporting of land protection is set for early 2016, reporting parcels protected through December 2015. This two-year window since the 2013-2014 effort provides time for land protection partners to implement consistent data standards based on the PAD_US format. To adequately measure and assess progress, the state and partners will need sufficient funding and capacity to implement PAD_US standards as well as aggregate progress into a single dataset for their state.

The 2016 reporting of land protection will additionally include progress toward achieving the forest and wetland sub-goals. Tracking will be coordinated with the Wetlands and Forest Buffer Outcome teams.

VIII. Assessing Progress

Monitoring progress on items detailed in biennial work plans will provide insight into what the land protection data tells us about past and future land protection efforts.

Other measurement and assessment tools that can also inform progress include:

- An annual progress report for the general public articulating best practices and leveraging successes.

- Partner and public surveys to measure changes in awareness, constituency-building and support of land conservation.
- Tracking of public and private funding for land conservation to monitor changes in funding levels over time.

IX. Adaptively Manage

The following approaches will be used to ensure adaptive management:

LandScope Chesapeake will provide the primary means for tracking progress toward the two million acre goal. Additional functionality may be added to LandScope Chesapeake or another platform to provide data analysis and identify trends and priority areas.

Annual Chesapeake Conservation Partnership gatherings provide a venue for reviewing progress toward this goal, sharing primary drivers for and obstacles to conservation over the previous year and assessing and addressing changes in management direction. The Steering Committee's regular meetings enable progress toward the land management goal and outcome to be adapted as needed.

Throughout the year, **communications tools**, including the Partnership website and newsletter, the Bay Program website, and special announcements will inform progress toward the goal and highlight needs or opportunities for participants to engage.

Workgroup meetings, set around specific conservation strategies, such as working lands, habitat and cultural landscapes provide additional venues for evaluating and adjusting particular strategies that mutually support the two million acre protection goal.

Annual reporting of best practices, success stories and other qualitative and quantitative successes is another means to recognize the impacts of existing programs, reflect on and adapt existing and new strategies, and grow the capacity and stewardship required to increase the amount of protected lands in the watershed.

Chesapeake Conservation Partnership participants are also involved in advancing working lands, healthy watersheds and other management strategies; **enabling a built-in feedback loop with other management strategies** as progress toward the two million acre goal is factored into progress on other goals and outcomes.

X. Biennial Workplan

Biennial workplans for each management strategy will be developed by April 2016. Each will include the following information:

- Key actions
- Timeline for each action
- Expected outcome
- Partners responsible for each action
- Estimated resources