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Chesapeake Bay Watershed Agreement



Chesapeake Bay Program
Science. Restoration. Partnership.

2014

Final

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PREAMBLE

The Chesapeake Bay watershed is one of the most extraordinary places in America, spanning six states and the District of Columbia. As the nation's largest and most productive estuary, the Chesapeake Bay and its vast network of more than 180,000 miles of streams, creeks and rivers, holds tremendous ecological, cultural, economic, historic and recreational value for the nearly 18 million people who live, work and play in the region.

To restore and protect this national treasure, the Chesapeake Bay Program partnership (the "Partnership") was formed in 1983 when the Governors of Maryland, Virginia, Pennsylvania, the Mayor of the District of Columbia, the Chair of the Chesapeake Bay Commission and the Administrator of the Environmental Protection Agency signed the first Chesapeake Bay agreement. That initial agreement recognized the "historical decline of living resources" in the Chesapeake Bay and committed to a cooperative approach to "fully address the extent, complexity and sources of pollutants entering the Bay." For more than 30 years, this regional Partnership has become recognized as one of the nation's premier estuarine restoration efforts, implementing policies, engaging in scientific investigation and coordinating actions among the states, the District of Columbia and the federal government.

The Chesapeake Bay Program partners have made much progress in that time, but there is more to do—especially in the face of continued challenges such as changes in population, loss of farm and forest lands and changing environmental conditions. Through the 2014 Chesapeake Bay Watershed Agreement (the "Agreement"), the Partnership recommits to the Bay watershed restoration effort based in and guided by science and the lessons learned from our experiences.

One of the most important lessons the partners have learned from the past three decades is that although watershed-wide partnerships can help to coordinate and catalyze progress, implementation happens locally. Local governments are key partners in our work, as are individual citizens, businesses, watershed groups and other non-governmental organizations. Working together to engage, empower and facilitate these partners will leverage resources and ensure better outcomes.

The Partnership's experience with watershed restoration and protection efforts has shown that measurable results, coupled with firm accountability, yield the most significant results. The Partnership stands ready to embrace new ideas, technologies and policies that will help meet its goals. The Partnership is committed to improving verification and transparency of its actions to strengthen and increase public confidence in its efforts.

The 1983 Agreement laid the foundation for a cooperative program that included four jurisdictions along with the Chesapeake Bay Commission and the federal government. This new Agreement includes the seven jurisdictions in the watershed, bringing New York, West Virginia and Delaware on

board with the original signatories and making them full partners in the Chesapeake Bay Program and the Chesapeake Executive Council. Due in part to a 2009 Presidential Executive Order, numerous federal agencies have also reaffirmed and augmented their longstanding and shared commitment to restoring and protecting the Chesapeake Bay.

This Chesapeake Bay Watershed Agreement acknowledges that the Partnership cannot address every issue at once and that progress must be made in a strategic manner, focusing on efforts that will achieve the most cost-effective results. Watershed restoration and protection have the potential to become integral drivers of the region's economy. To that end, the Partnership is committed to achieving restoration success while maximizing the economic benefits to local communities across the region. The signatories to this voluntary Agreement commit to achieving the restoration and protection of the Chesapeake Bay watershed and its living resources.

VISION

The Chesapeake Bay Program partners envision an environmentally and economically sustainable Chesapeake Bay watershed with clean water, abundant life, conserved lands and access to the water, a vibrant cultural heritage, and a diversity of engaged citizens and stakeholders.

PRINCIPLES

The following principles are an overarching framework by which the Chesapeake Bay Program commits to operate. They encompass the partners' collective, core values and are intended to help guide us in our work as the Partnership develops policy and takes actions to achieve this Agreement's Goals and Outcomes.

The Partnership will:

- **Collaborate** to achieve the Goals and Outcomes of this Agreement.
- **Achieve Goals and Outcomes** in a timely way and at the least possible cost to our citizens.
- **Represent the interests of people** throughout the watershed fairly and effectively, including a broad diversity of cultures, demographics and ages.
- **Operate with transparency** in program decisions, policies, actions and reporting on progress to strengthen public confidence in our efforts.
- **Use science-based decision-making and seek out innovative technologies** and **approaches** to support sound management decisions in a changing system.
- **Maintain a coordinated watershed-wide monitoring and research program** to support decision-making and track progress and the effectiveness of management actions.
- **Acknowledge, support and embrace local governments** and other local entities in watershed restoration and protection activities.

- **Anticipate changing conditions**, including long-term trends in sea level, temperature, precipitation, land use and other variables.
- **Adaptively manage** at all levels of the Partnership to foster continuous improvement.
- **Seek consensus** when making decisions.
- **Use place-based approaches**, where appropriate, that produce recognizable benefits to local communities while contributing to larger ecosystem goals.
- **Engage citizens** to increase the number and diversity of people who support and carry out the conservation and restoration activities necessary to achieve the Goals and Outcomes of the Agreement.
- **Explore using social science** to better understand and measure how human behavior can drive natural resource use, management and decision-making.
- **Promote environmental justice** through the meaningful involvement and fair treatment of all people, regardless of race, color, national origin or income, in the implementation of this Agreement.

GOALS AND OUTCOMES

The commitments contained in this section are the Goals and Outcomes that the signatories will work on collectively to advance restoration and protection of the Chesapeake Bay ecosystem and its watershed. The Goals articulate the desired high level aspects of the partners' Vision. The Outcomes related to each Goal are specific, time-bound, measurable targets that directly contribute to achieving that Goal.

The Management Strategies further described in the next section of this Agreement articulate the actions necessary to achieve the Goals and Outcomes. This work will require effort from many, including all levels of government, academic institutions, non-governmental organizations, watershed groups, businesses and individual citizens. Local government will continue to play a unique and critical role in helping the Partnership realize this shared Vision for the Chesapeake Bay. Signatories will participate in achieving the Outcomes of this Agreement in the manner described in the "Management Strategies Development and Implementation" section.

While the Goals and Outcomes are described by separate topic areas, the signatories recognize that they are interrelated. Improvements in habitat and water quality lead to healthier living resources. Environmentally literate citizens are more engaged stewards of the Chesapeake Bay's healthy watersheds. Better water quality means swimmable, fishable waters for Bay residents and visitors. Increased public access to the Bay inspires people to care for critical landscapes and honor the region's heritage and culture. Healthy fish and shellfish populations support a vibrant economy for a spectrum of fishing-related industries. The signatories recognize that all aspects of the ecosystem are connected and that these Goals and Outcomes support the health and the protection of the entire Bay watershed.

As the signatories identify new opportunities and concerns, Goals or Outcomes may be adopted or modified. Any changes or additions to Goals will be approved by the Executive Council. The Principals' Staff Committee will approve changes or additions to Outcomes, although significant changes or additions will be raised to the Executive Council for approval. Proposed changes to Goals and Outcomes or the addition of new ones will be open for public input before being finalized. Final changes or additions will be available on the Chesapeake Bay Program's website.

Sustainable Fisheries

Habitat loss, poor water quality, non-native and invasive species, toxics and fishing pressure continue to threaten the sustainability of the Chesapeake Bay's fisheries. Sustaining fish and shellfish populations contributes to a strong economy and maritime culture and supports a healthy ecosystem for all Bay watershed residents.

Goal: Protect, restore and enhance finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem in the watershed and Bay.

- ***Blue Crab Abundance Outcome:*** Maintain a sustainable blue crab population based on the current 2012 target of 215 million adult females. Refine population targets through 2025 based on best available science.
- ***Blue Crab Management Outcome:*** Manage for a stable and productive crab fishery including working with the industry, recreational crabbers and other stakeholders to improve commercial and recreational harvest accountability. By 2018, evaluate the establishment of a Bay-wide, allocation-based management framework with annual levels set by the jurisdictions for the purpose of accounting for and adjusting harvest by each jurisdiction.
- ***Oyster Outcome:*** Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.
- ***Forage Fish Outcome:*** Continually improve the Partnership's capacity to understand the role of forage fish populations in the Chesapeake Bay. By 2016, develop a strategy for assessing the forage fish base available as food for predatory species in the Chesapeake Bay.
- ***Fish Habitat Outcome:*** Continually improve effectiveness of fish habitat conservation and restoration efforts by identifying and characterizing critical spawning, nursery and forage areas within the Bay and tributaries for important fish and shellfish, and use existing and

new tools to integrate information and conduct assessments to inform restoration and conservation efforts.

Vital Habitats

Increasing needs for land and resources have resulted in fragmentation and degradation of many habitats across the watershed while also challenging the health of many Bay watershed species.

Conserving healthy habitats and restoring the connectivity and function of degraded habitats is essential to the long-term resilience and sustainability of the ecosystem and the region's quality of life.

Goal: Restore, enhance and protect a network of land and water habitats to support fish and wildlife, and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed.

- ***Wetlands Outcome:*** Continually increase the capacity of wetlands to provide water quality and habitat benefits throughout the watershed. Create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance function of an additional 150,000 acres of degraded wetlands by 2025. These activities may occur in any land use (including urban) but primarily occur in agricultural or natural landscapes.
 - ***Black Duck:*** By 2025, restore, enhance and preserve wetland habitats that support a wintering population of 100,000 black ducks, a species representative of the health of tidal marshes across the watershed. Refine population targets through 2025 based on best available science.
- ***Stream Health Outcome:*** Continually improve stream health and function throughout the watershed. Improve health and function of ten percent of stream miles above the 2008 baseline for the Chesapeake Bay watershed.
 - ***Brook Trout:*** Restore and sustain naturally reproducing brook trout populations in Chesapeake headwater streams with an eight percent increase in occupied habitat by 2025.
- ***Fish Passage Outcome:*** Continually increase available habitat to support sustainable migratory fish populations in Chesapeake Bay freshwater rivers and streams. By 2025, restore historical fish migratory routes by opening 1,000 additional stream miles, with restoration success indicated by the consistent presence of alewife, blueback herring, American shad, hickory shad, American eel and brook trout, to be monitored in accordance with available agency resources and collaboratively developed methods.
- ***Submerged Aquatic Vegetation (SAV) Outcome:*** Sustain and increase the habitat benefits of SAV (underwater grasses) in the Chesapeake Bay. Achieve and sustain the ultimate outcome of 185,000 acres of SAV Bay-wide necessary for a restored Bay. Progress toward

this ultimate outcome will be measured against a target of 90,000 acres by 2017 and 130,000 acres by 2025.

- **Forest Buffer Outcome:** Continually increase the capacity of forest buffers to provide water quality and habitat benefits throughout the watershed. Restore 900 miles per year of riparian forest buffer and conserve existing buffers until at least 70 percent of riparian areas throughout the watershed are forested.
- **Tree Canopy Outcome:** Continually increase urban tree canopy capacity to provide air quality, water quality and habitat benefits throughout the watershed. Expand urban tree canopy by 2,400 acres by 2025.

Water Quality

Restoring the Bay's waters is critical to overall watershed restoration because clean water is the foundation for healthy fisheries, habitats and communities across the region. However excess amounts of nitrogen, phosphorus and sediment in the Bay and its tributaries have caused many sections of the Bay to be listed as "impaired" under the Clean Water Act. The Chesapeake Bay Total Maximum Daily Load (TMDL) is driving nutrient and sediment reductions as described in the Watershed Implementation Plans (WIPs), adopted by the states and the District of Columbia, and establishes the foundation for water quality improvements embodied in this Agreement. These plans set nutrient and sediment reduction targets for various sources – stormwater, agriculture, air deposition, wastewater and septic systems.

Goal: Reduce pollutants to achieve the water quality necessary to support the aquatic living resources of the Bay and its tributaries and protect human health.

- **2017 Watershed Implementation Plans (WIP) Outcome:** By 2017, have practices and controls in place that are expected to achieve 60 percent of the nutrient and sediment pollution load reductions necessary to achieve applicable water quality standards compared to 2009 levels.
- **2025 WIP Outcome:** By 2025, have all practices and controls installed to achieve the Bay's dissolved oxygen, water clarity/submerged aquatic vegetation and chlorophyll *a* standards as articulated in the Chesapeake Bay TMDL document.
- **Water Quality Standards Attainment and Monitoring Outcome:** Continually improve the capacity to monitor and assess the effects of management actions being undertaken to implement the Bay TMDL and improve water quality. Use the monitoring results to report annually to the public on progress made in attaining established Bay water quality standards and trends in reducing nutrients and sediment in the watershed.

Toxic Contaminants

Toxic contaminants harm fish and wildlife in the Bay and its watershed and create risks to human health that limit the amount of fish that people can eat. Reducing the impacts of toxic contaminants is critical to improve the health of fish and wildlife, thereby improving their recreational value for citizens.

Goal: Ensure that the Bay and its rivers are free of effects of toxic contaminants on living resources and human health.

- ***Toxic Contaminants Research Outcome:*** Continually increase our understanding of the impacts and mitigation options for toxic contaminants. Develop a research agenda and further characterize the occurrence, concentrations, sources and effects of mercury, PCBs and other contaminants of emerging and widespread concern. In addition, identify which best management practices might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants in waterways.
- ***Toxic Contaminants Policy and Prevention Outcome:*** Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of PCBs in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

Healthy Watersheds

Many small watersheds in the Bay region are currently healthy but also at risk of degradation as the demand for local lands and resources increases. Promoting the long-term conservation and protection of healthy watershed systems through stakeholder engagement, collaboration and education is critical to the health of the larger ecosystem.

Goal: Sustain state-identified healthy waters and watersheds recognized for their high quality and/or high ecological value.

- ***Healthy Waters Outcome:*** 100 percent of state-identified currently healthy waters and watersheds remain healthy.

Stewardship

The long-term success of the Chesapeake Bay restoration effort will depend on local leadership -- and local action that depends primarily on a strong citizen stewardship. More than 600 local conservation and watershed organizations in our region are educating and empowering citizens to restore and protect their local streams and rivers. Tens of thousands of local citizen volunteers continue to donate their time and talent to our shared goals. Building a larger, broader, and more diverse

constituency of stewards is vital to achieving many of the Goals and Outcomes outlined in this Agreement.

Goal: Increase the number and the diversity of local citizen stewards and local governments that actively support and carry out the conservation and restoration activities that achieve healthy local streams, rivers and a vibrant Chesapeake Bay.

- ***Citizen Stewardship Outcome:*** Increase the number and diversity of trained and mobilized citizen volunteers with the knowledge and skills needed to enhance the health of their local watersheds.
- ***Local Leadership Outcome:*** Continually increase the knowledge and capacity of local officials on issues related to water resources and in the implementation of economic and policy incentives that will support local conservation actions.
- ***Diversity Outcome:*** Identify minority stakeholder groups that are not currently represented in the leadership, decision-making and implementation of conservation and restoration activities and create meaningful opportunities and programs to recruit and engage them in the Partnership's efforts.

Land Conservation

The landscapes around the Bay and its tributaries are ecologically, culturally, historically and recreationally valuable to the people and communities of the region. Stimulating, renewing and expanding commitments to conserve priority lands for use and enjoyment is an integral part of furthering the watershed's identity and spirit.

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 cultural, indigenous and community value.

- ***Protected Lands 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. (2010 baseline year)
- ***Land Use Methods and Metrics Development Outcome:*** Continually improve the knowledge of land conversion and the associated impacts throughout the watershed. By 2016, develop a Chesapeake Bay watershed-wide methodology and local-level metrics for characterizing the rate of farmland, forest and wetland conversion, measuring the extent and rate of change in impervious surface coverage and quantifying the potential impacts of land conversion to water quality, healthy watersheds and communities. Launch a public

awareness campaign to share this information with citizens, local governments, elected officials and stakeholders.

- **Land Use Options Evaluation Outcome:** By the end of 2017, with the direct involvement of local governments or their representatives, evaluate policy options, incentives and planning tools that could assist them in continually improving their capacity to reduce the rate of conversion of agricultural lands, forests and wetlands as well as the rate of changing landscapes from more natural lands that soak up pollutants to those that are paved over, hardscaped or otherwise impervious. Strategies should be developed for supporting local governments' and others' efforts in reducing these rates by 2025 and beyond.

Public Access

Physical access to the Bay and its tributaries is very limited, with real consequences for quality of life, local economies and long-term conservation. Increasing public access to local waterways for fishing, swimming, boating and other activities fosters a shared sense of responsibility and increased stewardship that supports Bay watershed restoration goals.

Goal: Expand public access to the Bay and its tributaries through existing and new local, state and federal parks, refuges, reserves, trails and partner sites.

- **Public Access Site Development Outcome:** By 2025, add 300 new public access sites, with a strong emphasis on providing opportunities for boating, swimming and fishing, where feasible. (2010 baseline year)

Environmental Literacy

The well-being of the Chesapeake Bay watershed will soon rest in the hands of its youngest citizens – the more than three million students in kindergarten through twelfth grade. Establishing strong, targeted environmental education programs now provides a vital foundation for these future watershed stewards.

Goal: Enable every student in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed.

- **Student Outcome:** Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school depending on available resources.
- **Sustainable Schools Outcome:** Continually increase the number of schools in the region that reduce the impact of their buildings and grounds on their local watershed,

environment and human health through best practices, including student-led protection and restoration projects.

- ***Environmental Literacy Planning Outcome:*** Each participating Bay jurisdiction should develop a comprehensive and systemic approach to environmental literacy for all students in the region that includes policies, practices and voluntary metrics that support the environmental literacy Goals and Outcomes of this Agreement.

Climate Resiliency

Changing climatic and sea level conditions may alter the Bay ecosystem and human activities, requiring adjustment to policies, programs and projects to successfully achieve our restoration and protection goals for the Chesapeake Bay and its watershed. This challenge requires careful monitoring and assessment of these impacts and application of this knowledge to policies, programs and projects.

Goal: Increase the resiliency of the Chesapeake Bay watershed, including its living resources, habitats, public infrastructure and communities, to withstand adverse impacts from changing environmental and climate conditions.

- ***Monitoring and Assessment Outcome:*** Continually monitor and assess the trends and likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem, including the effectiveness of restoration and protection policies, programs and projects.
- ***Adaptation Outcome:*** Continually pursue, design and construct restoration and protection projects to enhance the resiliency of Bay and aquatic ecosystems from the impacts of coastal erosion, coastal flooding, more intense and more frequent storms and sea level rise.

MANAGEMENT STRATEGIES DEVELOPMENT AND IMPLEMENTATION

Within one year of the signing of the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program's Goal Implementation Teams will develop Management Strategies for the Outcomes that support this Agreement's goals. These strategies will outline the means for accomplishing each Outcome as well as monitoring, assessing and reporting progress and coordinating actions among partners and stakeholders as necessary. Where appropriate, Management Strategies should describe how local governments, nonprofit and private partners will be engaged; where actions, tools or technical support are needed to empower local governments and others to do their part; and what steps will be taken to facilitate greater local participation in achieving the Outcome.

Participation in Management Strategies or participating in the achievement of Outcomes is expected to vary by signatory based on differing priorities across the watershed. This participation may include sharing knowledge, data or information, educating citizens or members, working on future legislation and developing or implementing programs or practices. Management Strategies, which are aimed at implementing outcomes, will identify participating signatories and other stakeholders, including local governments and nonprofit organizations, and will be implemented in two-year periods.

The signatories and other partners shall thereafter update and/or modify such commitments every two years. Specific Management Strategies will be developed in consultation with stakeholders, organizations and other agencies and will include a period for public input and review prior to final adoption. The Principals' Staff Committee will report on adoption of Management Strategies at the next Executive Council meeting and report on implementation of Management Strategies every two years.

Management Strategies may address multiple Outcomes if deemed appropriate. Goal Implementation Teams will re-evaluate biennially and update strategies as necessary, with attention to changing environmental and economic conditions. Partners may identify policy changes to address these conditions and minimize obstacles to achieve the Outcomes.

Stakeholder input will be incorporated into the development and reevaluation of each of the strategies. The Chesapeake Bay Program will make these strategies and reports on progress available to the public in a transparent manner on its websites and through public meetings of the appropriate Goal Implementation Teams and Management Board.

The Goal Implementation Teams will submit the Management Strategies to the Partnership's Management Board for review. If the Management Board determines that any strategy or plan developed prior to the signing of this Agreement meets the requirements of a Management Strategy as defined above, no new strategy needs to be developed. This includes, but is not limited to, the strategies and plans for implementing the Chesapeake Bay TMDL.

AFFIRMATION

As Chesapeake Bay Program Partners, we recognize the need to accelerate implementation of actions necessary to achieve the Goals and Outcomes outlined herein and realize our shared vision of a healthy and vibrant Chesapeake Bay watershed.

As Chesapeake Bay Program Partners, we acknowledge that this Agreement is voluntary and subject to the availability of appropriated funds. This Agreement is not a contract or an assistance agreement. We also understand that this Agreement does not pre-empt, supersede or override any other law or regulation applicable to each signatory.

We, the undersigned members of the Chesapeake Executive Council, reaffirm our commitment to support the Goals of this Agreement and to work cooperatively in its implementation. We agree to work both independently and collaboratively toward the Goals and Outcomes of this Agreement and to implement specific Management Strategies to achieve them. Every citizen of this great watershed is invited to join with the Partnership, uniting as a region and embracing the actions that will lead to success.

Date: _____

For the Chesapeake Bay Commission	_____
For the Commonwealth of Pennsylvania	_____
For the Commonwealth of Virginia	_____
For the District of Columbia	_____
For the State of Delaware	_____
For the State of Maryland	_____
For the State of New York	_____
For the State of West Virginia	_____
For the United States of America,	_____

on behalf of the Federal Leadership Committee for the Chesapeake Bay:

- U.S. Environmental Protection Agency
- U.S. Department of Agriculture
- U.S. Department of Commerce
- U.S. Department of Defense
- U.S. Department of Homeland Security
- U.S. Department of the Interior
- U.S. Department of Transportation