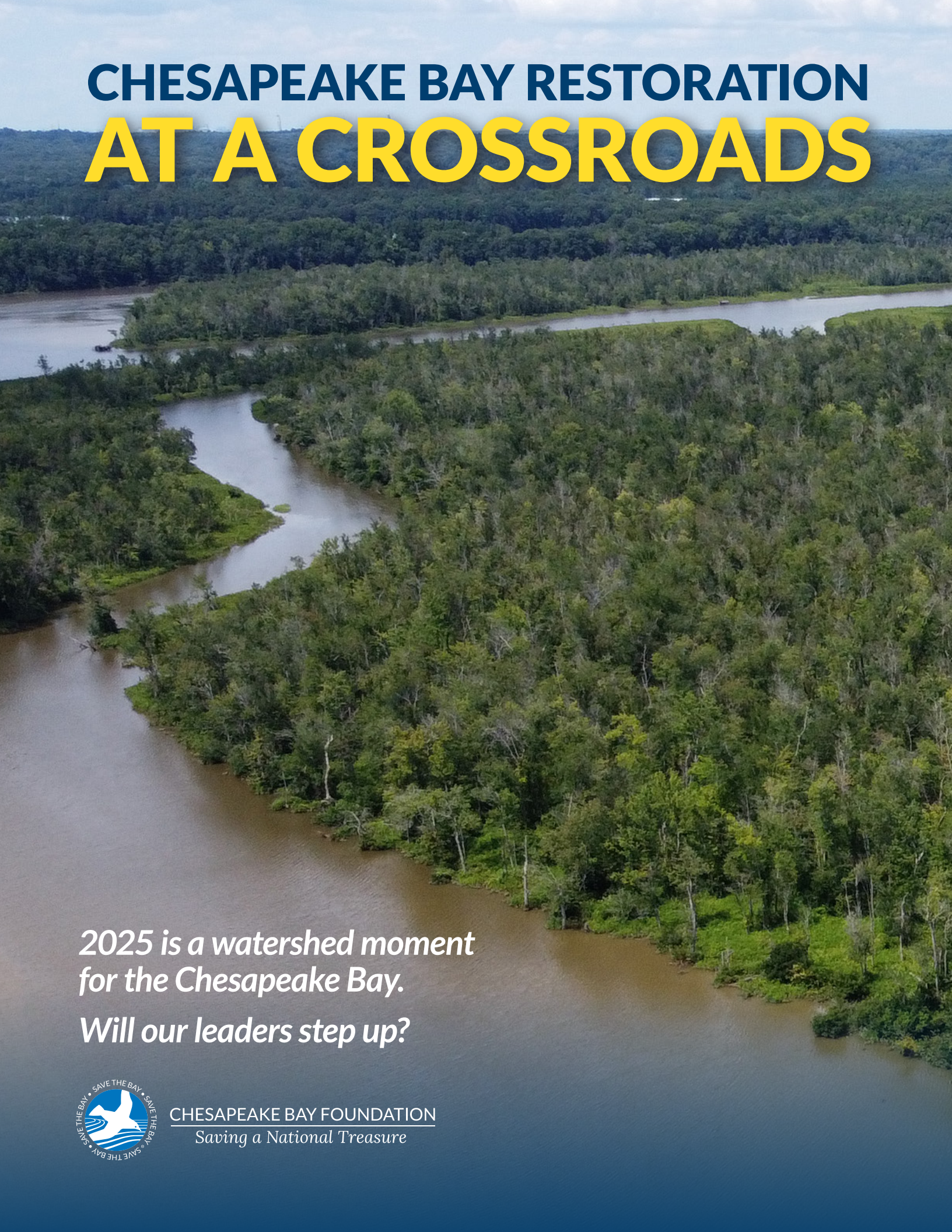
CHESAPEAKE BAY RESTORATION
AT A CROSSROADS



2025 is a watershed moment for the Chesapeake Bay.

Will our leaders step up?

CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

CHESAPEAKE BAY RESTORATION AT A CROSSROADS

2025 is a watershed moment for the Chesapeake Bay. Will our leaders step up?

Science and experience tell us that without a recommitment to work together, and a pledge to adapt and improve, too many of our waters will remain polluted. People will suffer, along with local economies and fish and wildlife. Restoration is at a crossroads.

EXECUTIVE SUMMARY

The Chesapeake Bay watershed is at a crossroads. It could become a more vibrant, thriving network of waterways enjoyed by all. Or, it could backslide, returning to a heavily polluted mess overwhelmed by the pressures of climate change, development, and the region's population growth. The future of the restoration effort will depend upon action this year by the region's governors and federal and local leaders.

More than 18 million people and 3,600 species of plants and animals depend on the Bay and its rivers and streams. For decades, the six states in the Chesapeake Bay watershed, the District of Columbia, and federal partners have worked together toward clean water, thriving wildlife, and healthy habitats. This model of cooperative environmental stewardship remains unmatched in the world.

The Bay partnership, formally launched in 1983, recognizes that states and the federal government must work together given that

pollution and habitats span state lines. Much of our greatest progress in Bay restoration can be traced back to the partnership's collaborative approach.

The Bay Agreements have driven the world's largest oyster reef restoration projects, created hundreds of new public access sites, and expanded scientific understanding of fish populations that support the Bay's food web and are critical to managing its fisheries. The partnership's work to collectively improve water quality has also led to dramatic pollution reductions at sewage treatment plants, urban trees that shade city streets during heat waves, and major investments in conservation practices on farms.

Yet this 40-year partnership, and any hope of achieving a revitalized Chesapeake Bay, depends on the watershed's governors and other state and federal leaders recommitting to the effort and addressing key challenges such as climate change.

Since 2010, states in the Bay watershed have been working toward a 2025 deadline to reach their commitments to reduce pollution to the Bay. It is now clear states will miss the deadline.

In a landmark report released in 2023, known as CESR (A Comprehensive Evaluation of System Response),[1] independent scientists who advise the restoration partnership said it must make major changes to meet restoration goals, particularly to address agricultural and stormwater pollution. It must also confront mounting challenges from climate change, population growth, and development.

We now need the leaders of the partnership—the Chesapeake Executive Council—to make a formal, unified commitment to maintain the partnership and meet Bay restoration goals beyond 2025, and to make the bold pivot needed to address these serious challenges. The public can help by demanding renewed commitment and action.

That starts with three fundamental steps by members of the Chesapeake Executive Council at their annual meeting in December 2024:

1. Attendance by each of the Executive Council members, including all six Bay state governors, the mayor of Washington, D.C., the administrator of the U.S. Environmental Protection Agency (EPA), and the chair of the Chesapeake Bay Commission.
2. A formal recommitment to maintaining the Bay restoration partnership, as well as meeting the pollution-reduction and other restoration goals in the 2014 Chesapeake Bay Watershed Agreement.
3. A commitment by the Executive Council to update the Bay Agreement by the end of 2025 to address challenges identified by the latest science.

The urgent need for these actions is echoed by elected leaders, Bay experts, and advocates across the region, including in:

- the draft report released by the partnership's own Beyond 2025 Steering Committee, which includes program managers and scientific experts from each jurisdiction (open for public comment through August 30, 2024);
- a letter issued in June 2024 by a bipartisan group of 25 members of Congress;
- and comments submitted by more than 110 conservation organizations—including CBF—with the Choose Clean Water Coalition.

Science and experience tell us that without a recommitment to work together, and a pledge to adapt and improve, too many of our waters will remain polluted. People will suffer, along with local economies and fish and wildlife. Restoration is at a crossroads.

WHAT IS AT STAKE

The Chesapeake Bay watershed, which feeds the largest estuary in the United States, covers 64,000 square miles across six states and the District of Columbia. It is home to more than 18 million people and more than 3,600 species of plants and animals.[2]

In addition to the intrinsic value of this tremendous natural resource, much depends on the health of the Chesapeake's lands and waters. All told, the region would reap an estimated $130 billion in natural benefits each year if the partnership fully implemented the long-term plan to reduce pollution, known as the Chesapeake Clean Water Blueprint.[3] These include services such as air and water filtration, agricultural and seafood production, increased property valuation, and flood and hurricane protection.

For example:

- The waters of the Bay support a commercial seafood industry in Maryland and Virginia that generates $2.8 billion in sales, $490 million in income, and nearly 20,000 jobs each year.[4]
- The forests of the watershed protect and filter drinking water for 75 percent of the watershed's residents, nearly 13 million people.
- Outdoor recreation contributed more than $71.9 billion to GDP and nearly 674,000 jobs in watershed states in 2022.[5]

The Bay restoration partnership also attracts and infuses federal and state investment into the region, thanks in part to its clear focus with measurable goals. This benefits local economies and people living across the watershed

SUPPORTING SUCCESS

Much of the funding and resources for restoration are funneled through the Chesapeake Bay Partnership, which also helps coordinate efforts among jurisdictions. This is often in the form of federal and state grant programs that support local-led projects. In this way, the partnership seeds success across the watershed, including the examples below.

VIRGINIA

Oyster Restoration on Norfolk's Lafayette

Restored oyster reefs in Norfolk's Lafayette River.

KENNY FLETCHER/CBF STAFF

Norfolk's Lafayette River became the first river in Virginia to meet goals for oyster habitat restoration set for 11 tributaries across the Bay, supporting life from speckled trout to seahorses to river otters. This marks a transformative comeback for an urban waterway where runoff and algal blooms once threatened recreational activities like swimming and paddling.

MARYLAND

Rain Gardens in Baltimore City

Green infrastructure in Baltimore.

CHESAPEAKE BAY PROGRAM

In Baltimore, efforts removed roughly 25,000-square-feet of hard, paved areas and planted 12,000-square-feet of rain gardens thanks to a three-year grant from National Fish and Wildlife Foundation and Maryland Department of Natural Resources to Blue Water Baltimore and Interfaith Partners for the Chesapeake. The project engaged over 84 congregations in Baltimore to improve stormwater management, increase resilience to flooding, and reduce polluted urban runoff entering the Bay.

PENNSYLVANIA

New Trees along Pennsylvania Waterways

A riparian buffer at the Vicent DiFilippo Nature Preserve in Cumberland County.

B.J. SMALL/CBF STAFF

A National Fish and Wildlife Foundation grant to CBF in 2020, and matching funds, is investing $2 million in planting and maintaining trees in new forest buffers along streams and rivers in eight Pennsylvania counties. The grant, administered by CBF, is in collaboration with the Keystone 10 Million Trees Partnership, which it coordinates, and other partners.

WEST VIRGINIA

Fencing and Trees along Potomac Headwaters

Native tree seedlings near the start of the Lost River.

LISA CARUSO/CBF STAFF

Trout Unlimited planted 1,100 native trees and installed 4,500 feet of fencing to protect the Potomac River headwaters running through Wilding Wooly Farm. The water leaves the property cold and clean enough to support native brook trout downriver before ultimately reaching the Chesapeake Bay.

DELAWARE

Urban Revitalization in Waterfront Towns

Broad Creek in Laurel, Delaware.

WILL PARSON/CHESAPEAKE BAY PROGRAM

Rain gardens and plantings of native trees and plants have sprouted along the main streets and waterfronts of Bethel, Laurel, and Seaford, Delaware as the result of nearly $400,000 from the Chesapeake Bay Green Streets, Green Jobs, Green Towns Grant Program, supported by federal funds administered by the Chesapeake Bay Trust. The projects support broader, local-led redevelopment efforts designed to revitalize the towns, as well as reduce pollution and flooding.

NEW YORK

More Recreation Opportunities in New York

Paddlers on Otsego Lake in New York.

WILL PARSON/CHESAPEAKE BAY PROGRAM

Public access points, including canoe and kayak launches, allow people to experience the headwaters of the Chesapeake Bay in New York where the Susquehanna River flows from Otsego Lake, thanks to a partnership between the Otsego Land Trust and the Chesapeake Conservancy utilizing funds from the National Park Service's Chesapeake Gateways program. The Gateways program has provided $26 million over the past two decades to fund projects like these across the watershed.

DISTRICT OF COLUMBIA

More Life in the Anacostia River

Freshwater mussels being restored in the Anacostia River.

WILL PARSON/CHESAPEAKE BAY PROGRAM

Thanks to restoration efforts, freshwater mussels and other wildlife, including river otters, are making a comeback in the Anacostia River, according to the Anacostia Watershed Society's latest report card on the river's health. The river was long considered one of the region's most polluted due to industrial contamination and development.

Yet there is more to be done. Many of the waterways, forests, and wildlife that support these valuable industries and services are in trouble. In the Bay Program's last assessment period (2019-2021), just 28.1 percent of the Bay's waters met water-quality standards,[6] and thousands of stream miles remain impaired in all of the Bay watershed states. Forests continue to disappear: the watershed lost over 25,000 acres of urban tree canopy[7] and 21,743 acres of streamside forests[8] between 2013/14 and 2017/18, according to the most recent data. Populations of blue crabs, striped bass, and osprey are struggling again after promising comebacks.

Without further action to address persistent pollution and growing challenges like climate change, population growth, and development, progress to reverse these trends will be lost, and the situation will worsen.

Bay Restoration in the States

By joining the Chesapeake Bay Partnership, states receive federal investment from many sources. The Chesapeake Bay Stewardship Fund is just one way—among many others—that federal investment is making a real, tangible difference for life in states across the Bay watershed.

INVESTMENTS

Between 1999 and 2022, the Chesapeake Bay Stewardship Fund awarded more than 1,350 local grants totaling $248 million in Pennsylvania, Virginia, Maryland, West Virginia, Delaware, New York, and D.C. The grants, together with an additional $351 million in matching funds, resulted in:

RETURNS

- Polluted runoff treated from 14,764 acres of impervious surfaces
- More than 15,987 acres of wetlands and 2,443 miles of forests along streams and rivers restored
- More than 2,175 miles of fences to keep livestock out of streams installed
- More than 581 miles of rivers and streams for fish passage reconnected
- 396 acres of oyster reefs established
- 171,291 acres of forests protected

SOURCE: NFWF.ORG/PROGRAMS/CHESAPEAKE-BAY-STEWARDSHIP-FUND

THE CURRENT STATE OF RESTORATION

Pollution Reductions and Water Quality

As of 2023, based on modeled pollution reductions from restoration actions to date, the partnership is estimated to meet 57 percent of the goal to reduce nitrogen, 67 percent of the goal to reduce phosphorus, and 100 percent of the goal to reduce sediment.[9] While this is significant progress, it remains far off track from the needed reductions. The partnership will collectively miss the 2025 goals by a wide margin.

A thriving Bay is likely to be even further behind than these numbers suggest. Actual results in rivers and streams verified by monitoring data show that more pollution is entering waterways than what computer models predict. Furthermore, models show that the majority of progress to date can be attributed to upgrades to wastewater treatment plants.

Reductions from diffuse, "nonpoint" pollution that comes in the form of runoff from agricultural fields and developed urban and suburban land, has been much more difficult to address. This runoff is the largest remaining source of pollution to the Bay. The partnership cannot make additional progress—or sustain the progress it has made—without addressing *all* sources of pollution, particularly nonpoint pollution.

Bay Agreement Goals

Water quality, however, is just one of the goals outlined in the 2014 Chesapeake Bay Agreement.[10] The agreement, signed by all state governors and federal partners, articulates the partnership's restoration commitments in 10 goals and 31 outcomes. In addition to water quality, these include goals governing sustainable fisheries, the restoration of vital habitats, the reduction of toxic contaminants, the conservation of healthy watersheds and lands, an increase in climate resiliency, and the expansion of public access, education, and stewardship.

In its January 2024 report[11] to the Executive Council, the Chesapeake Bay Program found that the partnership is on track to meet 18 of the outcomes and off track for 11, with the remaining two outcomes uncertain.

One notable success among those outcomes is the restoration of 1,572 acres of oyster habitat in 11 Chesapeake Bay tributaries since 2014, encompassing the largest oyster restoration projects in the world. Integral to the success of this outcome was the coordinated, targeted approach that leveraged resources across all levels of the partnership. These oysters now filter water and create important habitat for fish, crabs, and other aquatic life—supporting recreational and commercial fisheries.

One notable challenge among those outcomes is the establishment and preservation of forested buffers, which are trees and shrubs that border stream and riverbanks, absorbing and filtering polluted runoff. This is one of the most efficient ways to prevent pollution to the Bay. Despite recent progress, efforts are falling far short of Bay Agreement goals. The region is losing more forested buffers to development and other causes than it is gaining through planting.

A NEED FOR CHANGE

While there is no doubt that the Chesapeake Bay watershed is healthier than it was when the restoration effort began in 1983, there is also no doubt that it remains significantly degraded. Last year, dozens of scientists from across the watershed who advise the federal-state Chesapeake Bay cleanup partnership released a major report, known as CESR, that reviewed efforts over the past 40 years and sought to answer why the Bay has not improved as much as hoped.

It identified both an "implementation gap" and a "response gap" in efforts to date. The first means the partnership has not yet implemented enough restoration practices at a large enough scale. The second means that even where practices have been implemented, water quality is not always improving as much or as quickly as expected. A new USGS study[12] documented several instances in the Chesapeake Bay watershed where management practices to reduce pollution increased substantially, but they could not keep up with increasingly intense pollution sources—with the result that pollution overall stayed constant or increased.

Closing these gaps will likely require significant changes to current restoration programs.[13] First and foremost is changing programs to incentive outcomes rather than effort. The current system incentivizes states to implement a large number of pollution-reduction projects but does not reward them for prioritizing those projects in the most effective places or achieving real-world improvements to water quality, habitat, or wildlife.

Other key changes include:

- Increasing the focus on areas with the highest benefits to plants and animals, such as shallow water, to amplify and accelerate progress for wildlife and public use.
- Identifying and implementing new solutions for nonpoint pollution from agriculture and urban growth, especially in areas where these activities are intense and have created "hotspots" of nitrogen, phosphorus, and sediment pollution far higher than what the landscape can withstand.
- Promoting innovative and creative approaches to achieving outcomes—such as "pay-for-outcome" programs—and including new ways to prioritize and target investments to maximize benefits as quickly as possible.
- Confronting climate change through both mitigation and adaptation—particularly in communities and habitats that are disproportionately impacted, and accounting for climate change when prioritizing and evaluating the effectiveness of best management practices.
- Ensuring restoration benefits all people, and that all people have a voice in shaping its future. This includes addressing environmental injustices and building trust among stakeholders.
- Building and strengthening the partnerships and public coalition necessary for watershed restoration.

A VALUABLE PARTNERSHIP AT RISK

The federal and state Chesapeake Bay Partnership is essential for confronting and overcoming these challenges. Without it, restoration will fail. Because pollution in one state in the Bay watershed affects others, it is imperative that states work together.

The partnership was established in 1983 with the signing of the first Chesapeake Bay Agreement,[14] and it remains unique among the nation's environmental restoration efforts. Bringing together all six watershed states, the District of Columbia, and the federal agencies, it recognizes that a watershed functions as a whole—and so too must the restoration effort. Its ability to chart and implement a cohesive restoration plan, backed by a coordinated scientific research effort, remains vital to achieving a healthy watershed.

The partnership is led by the six Bay state governors, the mayor of the District of Columbia, the administrator of the U.S. Environmental Protection Agency on behalf of all federal partners, and the chair of the Chesapeake Bay Commission. Together, they make up the Chesapeake Executive Council and set the policy direction for restoration. Strong action from the Executive Council and a commitment to work together have been paramount at each major juncture of the restoration effort's existence, including:

1983:
The signing of the first ever Chesapeake Bay Agreement by Maryland, Pennsylvania, Virginia, the District of Columbia, federal partners, and the Chesapeake Bay Commission.[15] The agreement created a clear commitment to implement the collective restoration actions called for in the Congressionally mandated Chesapeake Bay Study.

1987:
The adoption of specific, science-based goals to reduce pollution 40 percent by 2000 in the 1987 Chesapeake Bay Agreement.[16]

2000:
The expansion of restoration to include goals for habitat, fisheries, education, and community stewardship in the Chesapeake 2000 agreement,[17] recognizing that these goals were just as paramount to a healthy watershed as water quality. For the first time, Delaware, New York, and West Virginia officially joined the partnership.

2010:
The incorporation of the Bay's Total Maximum Daily Load (TMDL)—science-based pollution limits developed under the federal Clean Water Act that are legally enforceable—providing additional accountability for meeting water-quality goals. This is known as the Chesapeake Clean Water Blueprint.

2014:
The signing of the Chesapeake Bay Watershed Agreement[10] by all six governors of Bay watershed states, the Mayor of the District of Columbia, the EPA Administrator, and the Chesapeake Bay Commission. The agreement includes both the Blueprint water-quality goals and other commitments for habitat restoration and conservation, improving fisheries, public access, and environmental literacy.

These moments demonstrate the vital importance of the full Executive Council's presence and participation in charting the path forward. The scale of the challenges facing the watershed make 2024 another decisive moment that demands leadership. By attending this year's annual meeting and publicly committing, together, to maintain the partnership beyond 2025 and incorporate the findings of the CESR report, leaders can again change the course of restoration for the better.

In the absence of such commitments, there is a very real chance that the partnership will either dissolve or become increasingly ineffective beyond 2025.

A CALL TO ACTION

It is unclear if the Chesapeake Bay restoration partnership is prepared to meet this moment. However, the partnership now has the opportunity to build on the successes and lessons learned over the past 40 years of restoration to propel progress in the next chapter. Throughout its history, public concern and support have made clear to leaders that the health of our rivers, streams, and coastal waters—upon which our regional identity, economy, and quality of life depend—is a priority. We must now show our leaders we care deeply about these issues and demand the following actions:

1. **Attendance by each of the Executive Council members, including all six Bay state governors, the mayor of Washington, D.C., the administrator of the U.S. Environmental Protection Agency (EPA), and the chair of the Chesapeake Bay Commission.**

2. **A formal recommitment to maintaining the Bay restoration partnership, as well as meeting pollution-reduction and other restoration goals in the 2014 Chesapeake Bay Watershed Agreement.**

3. **A commitment by the Executive Council to update the Bay Agreement by the end of 2025 to address challenges identified by the latest science.**

These actions are not the full solution, but an essential first step. They are necessary to ensure restoration continues beyond 2025, achieving the pollution reductions to which Chesapeake watershed states have already committed. They are necessary to improve the partnership's effectiveness and ability to act. And they are necessary to make the substantial pivot needed to address growing challenges from climate change and new development in the watershed.

Restoring an estuary as large and complex as the Chesapeake Bay, in a watershed as dynamic and heavily developed as ours, is a phenomenal task. Over the past 40 years the partnership has gained an incredible wealth of experiential knowledge about how to create a place that allows both people and the natural world to thrive together. We have made great progress. Yet we've also learned some approaches are not working or could work much better. This is not failure. But refusing to use what we've learned, at this critical moment, would be.

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