2024–2025

Bay Barometer

Health and Restoration in
MARYLAND

Bay Barometer **shares the most up-to-date information and data about our progress toward the goals and outcomes in the 2014** ***Chesapeake Bay Watershed Agreement*****.**

In Maryland, the Chesapeake Bay watershed spans more than 5.9 million acres, touching each of the state's 23 counties and Baltimore City. Four of its major rivers—the Choptank, Patuxent, Potomac and Susquehanna—flow directly into the Bay. Below is a snapshot of progress in Maryland's portion of the Chesapeake Bay watershed.

Abundant Life

Black Duck

Between 2017 and 2024, Maryland enhanced 4,213 acres of wetlands deemed suitable habitat for black ducks. Watershed-wide, 18.3% of the goal to enhance black duck suitable wetland habitat has been achieved.

During the same time period, Maryland restored or created 2,274 additional wetland acres deemed suitable habitat for black ducks. Watershed-wide, 4.08% of the goal to restore or create suitable wetland habitat for black ducks has been achieved.

Blue Crab Abundance

Between 2024 and 2025, 108 million adult female blue crabs were observed in the Chesapeake Bay. While this number is below the target of 196 million, it remains above the 72.5 million threshold that is needed to sustain a healthy population.

Wetlands

Since 2014, Maryland has enhanced 37,496 acres of wetlands, contributing to the watershed-wide total of 61,163 acres, which marks 40.77% achievement of the 150,000-acre goal.

Additionally, Maryland has created or restored 3,304 acres of wetlands, contributing to the watershed-wide total of 4,862 acres, which marks a 5.72% achievement of the 85,000-acre goal.

Oysters

In 2025, Maryland completed large-scale oyster restoration in five Chesapeake Bay tributaries, helping to achieve the Oyster Outcome. Since 2014, 1,237 acres of oyster reefs have been restored in Maryland's portion of the Bay.

TRIBUTARY	ACRES RESTORED	YEAR COMPLETED
Harris Creek	343	2020
Little Choptank River	358	2020
Manokin River	345	2025
Tred Avon River	131	2021
Upper St. Mary's River	60	2022

Submerged Aquatic Vegetation (SAV)

In 2024, 36,799 acres of underwater grasses were observed in Maryland's portion of the Chesapeake Bay. Across the entire Bay and its tidal tributaries, 83,252 acres of grasses were mapped, achieving 64% of the goal to reach 130,000 acres by 2025.

Clean Water

2025 Watershed Implementation Plans (WIPs)

As of 2024, Maryland has achieved 97% of its 2025 reduction goals for nitrogen, 100% of its reduction goal for phosphorus and 100% of its reduction goal for sediment. The state met each one of its 2024 reduction targets.

Toxic Contaminants Policy & Prevention

As of 2024, 40.2% of tidal waters in Maryland are considered to be partially or fully impaired by toxic contaminants. Just over 80% of the entire Chesapeake Bay's tidal segments are considered to be partially or fully impaired by PCBs, PFAS, metals and other contaminants.

Water Quality Standards Attainment

During the 2021–2023 assessment period, 29.4% of the Bay's tidal waters attained water quality standards. Short-term monitoring trends (2014–2023) show the following for four of Maryland's largest rivers:

TRIBUTARY	SHORT-TERM TREND (2014–2023)
Choptank River	Trends in phosphorus and sediment are declining; no change for nitrogen.
Patuxent River	Trends in nitrogen, phosphorus and sediment are improving.
Potomac River	Trends in nitrogen and phosphorus are improving; no change for sediment.
Susquehanna River	Trends in nitrogen, phosphorus and sediment are improving.

Conserved Lands

Forest Buffers

Maryland contributed 25 of the 227 miles of riparian forest buffers planted across the watershed in 2024, helping to achieve 25.2% of the watershed-wide goal to plant 900 miles each year.

Land Use Methods and Metrics

The Chesapeake Bay Program's 2021-22 High-Resolution Land Use/Cover and Change Data show that 2,066,925 acres, or approximately 4.7% of the watershed, is covered by impervious surfaces. In Maryland's portion of the Bay watershed, impervious surfaces cover 519,956 acres, or approximately 7% of the land.

Protected Lands

As of 2024, 1,700,342 acres of protected lands can be found in Maryland, a decrease of 1.2% from 2022 but representing an increase of 547,850 acres of additional protected lands in the state since 2010. Over 1.8 million acres of lands have been conserved across the watershed since 2010, achieving 90% of the goal to protect an additional two million acresC.

Tree Canopy

Maryland planted 1,617 acres of trees in 2024, bringing the total amount of trees planted across the state since 2014 to 10,357 acres. Overall, 5,743 acres of trees were planted across the watershed in 2024, continually increasing tree canopy.

Despite these gains, the Chesapeake Bay Program's High-Resolution Land Use/Cover and Change Data show that from 2013/14-2021/22, an estimated 11,868 acres of tree canopy was lost across Maryland.

Engaged Communities

Environmental Literacy

In 2024, 23 local education agencies in Maryland voluntarily reported that 78% of their schools are well-prepared to implement environmental education by having a comprehensive and systematic approach in place.

Of these local education agencies, 83% of elementary schools, 91% of middle schools and 74% of high schools have a system-wide Meaningful Watershed Educational Experience (MWEE) in place for at least one grade level.

Public Access

In 2024, Maryland opened six new sites to connect the public with the water, bringing the total number of public access sites opened in the state since 2011 to 652. Overall, 1,451 new public access sites were opened across the watershed during this timeframe, completing the Public Access Outcome.