

2024-2025

# Bay Barometer

Health and Restoration in  
**VIRGINIA**



***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 Virginia, the Chesapeake Bay watershed spans more than 13.9 million acres and six of its major rivers—Appomattox, James, Mattaponi, Pamunkey, Potomac and Rappahannock—are tributaries of the Bay. Below is a snapshot of progress in Virginia’s portion of the Chesapeake Bay watershed.

## Abundant Life

### Black Duck

Between 2017 and 2024, Virginia enhanced 22,839 acres of wetlands deemed suitable habitat for black ducks. Watershed-wide, only 18.3% of the goal to enhance black duck-suitable habitat has been achieved.

During the same time period, Virginia restored or created 444 acres of wetlands deemed suitable habitat for black ducks. Watershed-wide, only 4.08% of the goal to restore or create black duck-suitable habitat 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, Virginia has enhanced 23,081 acres of wetlands, contributing to the watershed-wide total of 61,163 acres, which marks a 40.77% achievement of the 150,000-acre goal.

Additionally, Virginia has created or restored 444 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, Virginia completed large-scale oyster restoration in six Chesapeake Bay tributaries, helping to complete the Oyster Outcome. Since 2014, 1,083 acres of oyster reefs have been restored in Virginia’s portion of the Bay.

TRIBUTARY	ACRES RESTORED	YEAR COMPLETED
Great Wicomico River	124	2021
Lafayette River	82	2019
Lower York River	204	2023
Lynnhaven River	152	2025
Piankatank River	497	2021
Eastern Branch Elizabeth River	24	2020

### Submerged Aquatic Vegetation (SAV)

In 2024, 46,451 acres of underwater grasses were observed in Virginia’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.



Read the **2024-2025 Bay Barometer** at [Chesapeakebay.net/what/publications](https://Chesapeakebay.net/what/publications)

# Clean Water

## 2025 Watershed Implementation Plans (WIPs)

As of 2024, Virginia has achieved 84% of its 2025 reduction goal for nitrogen, 91% of its reduction goal for phosphorus and 100% of its reduction goal for sediment. The Commonwealth achieved its 2024 reduction goals for sediment, but not nitrogen or phosphorus.

## Toxic Contaminants Policy & Prevention

As of 2024, 37%, or 34 of the Chesapeake Bay's tidal segments<sup>1</sup> within Virginia, are considered partially or fully impaired by toxic contaminants<sup>2</sup>. Just over 80% of the entire Chesapeake Bay's tidal segments are considered partially or fully impaired by PCBs, PFAS, metals or other contaminants.

<sup>1</sup> The Chesapeake Bay has a total of 92 tidal segments.

<sup>2</sup> These impairments are linked to fish consumption advisories issued by the Virginia Department of Health.

# Conserved Lands

## Forest Buffers

Virginia contributed 43 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 Virginia's portion of the Bay watershed, impervious surfaces cover 780,688 acres, or approximately 5.7% of the land.

## Protected Lands

As of 2024, 3,120,421 acres of protected lands can be found in Virginia, an increase of 7.5% from 2022. 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 acres.

## Tree Canopy

Virginia planted 224 acres of trees in 2024, bringing the total amount of trees planted across the state since 2014 to 1,046 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 11,873 acres of tree canopy was lost across Virginia.

# Engaged Communities

## Environmental Literacy

In 2024, 115 local education agencies in Virginia voluntarily reported that 22% of their schools are well-prepared to teach environmental education by having a comprehensive and systematic approach in place.

Additionally, 115 local education agencies reported that 40% of elementary schools have a [Meaningful Watershed Educational Experience \(MWEE\)](#) in place for at least one grade level; 114 local education agencies reported that 45% of middle schools have a MWEE in place for at least one grade level; and 108 local education agencies reported that 36% of high schools have a MWEE in place for at least one grade level.

## Public Access

In 2024, Virginia opened seven new sites to connect the public with the water, bringing the total number of public access sites opened in the Commonwealth since 2011 to 414. Overall, 1,451 new public access sites were opened across the watershed during this timeframe, completing the Public Access Outcome.



Read the revised *Chesapeake Bay Watershed Agreement* at [Chesapeakebay.net/watershed-agreement](https://Chesapeakebay.net/watershed-agreement)