

Health and Restoration in West Virginia

More than 3,500 square miles of West Virginia sit within the Chesapeake Bay watershed, and one of the state's major rivers—the Potomac—flows into the Chesapeake Bay. The following outcomes of the [Chesapeake Bay Watershed Agreement](#) were updated in 2023 and the Chesapeake Bay Program is pleased to present specific data for West Virginia.

Forest Buffers

Outcome: Increase the capacity of [forest buffers](#) to provide water quality and habitat benefits throughout the Chesapeake Bay watershed. Restore 900 miles of riparian forest buffers per year and conserve existing buffers until at least 70 percent of the watershed's riparian areas are forested.

Progress in West Virginia: West Virginia planted 10.1 miles of forest buffers in 2021, roughly 15 less miles than in 2020.

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.

Progress in West Virginia: West Virginia reported 33.4 acres of community tree plantings in 2021, but lost 107 acres of tree canopy between 2013/14 and 2017/18. [Click here](#) to see tree canopy gain/loss for individual West Virginia counties.

2025 Watershed Implementation Plans

Outcome: By 2025, have all [practices and controls](#) in place to achieve applicable water quality (i.e., dissolved oxygen, water clarity/submerged aquatic vegetation and chlorophyll a) standards as articulated in the Chesapeake Bay Total Maximum Daily Load.

Progress in West Virginia: West Virginia has best management practices (BMPs) in place to achieve 100% of its pollutant reduction goal for nitrogen, 95% of its reduction goal for phosphorus and 100% of its reduction goal for sediment by 2025. BMPs put in place from 2021 to 2022 in West Virginia are estimated to have lowered the amount of nitrogen and sediment flowing into the Bay by .4% and .9%, respectively. The state increased the amount of phosphorus flowing into the Bay by 1.1%. In 2022, West Virginia released 7.9 million pounds of nitrogen, .4 million pounds of phosphorus and 548.7 million pounds of sediment into the Bay.

West Virginia's Progress Towards Meeting its 2025 Targets

100%	95%	100%
Nitrogen	Phosphorus	Sediment

Land Use Methods and Metrics

Outcome: Continually improve our knowledge of [land conversion](#) and the associated impacts throughout the watershed.

Progress in West Virginia: 94.8% of West Virginia's land is covered by 5% or less impervious surfaces, 3.8% is covered by 5-10% impervious, 1.3% is covered by 10-25% impervious and .1% is covered by over 25%.

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 forestland of highest value for maintaining water quality.

Progress in West Virginia: According to data collected through 2022, nearly 1.64 million acres of land in the Chesapeake Bay watershed have been permanently protected since 2010. Within the watershed, West Virginia has about 372,151 acres of protected lands total as of 2022.

Public Access

Outcome: By 2025, add 300 new [public access](#) sites to the Chesapeake Bay watershed, with a strong emphasis on providing opportunities for boating, swimming and fishing, where feasible.

Progress in West Virginia: Between 2011 and 2022, 284 boat ramps, fishing piers and other public access sites were opened on and around the Chesapeake Bay. West Virginia opened up two new sites in 2016 but has since lost five sites.

Environmental Literacy Planning

Outcome: Each participating Chesapeake 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 the Watershed Agreement.

Progress in West Virginia: In 2022, 55 local education agencies (LEAs) from West Virginia responded to the Chesapeake Bay Program's Environmental Literacy Indicator Tool (ELIT) that measures the degree of environmental literacy preparedness among school districts across the watershed. Of the LEAs that responded to the survey, 13% reported being well-prepared, 25% reported being somewhat prepared, 0% reported being not prepared and 63% did not report a status.

Student

Outcome: Increase [students'](#) age-appropriate understanding of the watershed through participation in teacher-supported Meaningful Watershed Educational Experiences (MWEEs) and rigorous, inquiry-based instruction, with a target of at least one MWEE in elementary, middle and high school depending on available resources.

Progress in West Virginia: ELIT survey responses captured the extent to which Meaningful Watershed Educational Experiences (MWEEs) were available at schools. In West Virginia, 0% of LEAs reported offering no MWEEs, 67% reported offering some MWEEs and 33% reported offering system-wide MWEEs in at least one grade level.

Climate 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.

Progress in West Virginia: When compared to a 100-year baseline (1901-2000), total annual precipitation increased in the Northeastern and Central West Virginia climate divisions by 10.7% and 2.9%, respectively, and decreased in the Southern West Virginia division by .20%. When compared to the 100-year baseline (1901-2000), average air temperature increased in the Northeastern, Central and Southern West Virginia divisions by 1.4°F, 1.1°F and 0.6°F per century, respectively.

Bay-Wide Outcomes

In addition to the above, the following outcomes were updated in 2023 and their Bay-wide data and information can be found on [ChesapeakeProgress.com](#):

- [Blue Crab Abundance](#)
- [Oysters](#)
- [Submerged Aquatic Vegetation](#)
- [Wetlands](#)
- [Stream Health](#)
- [Water Quality Standards and Attainment](#)
- [Local Leadership](#)
- [Diversity](#)