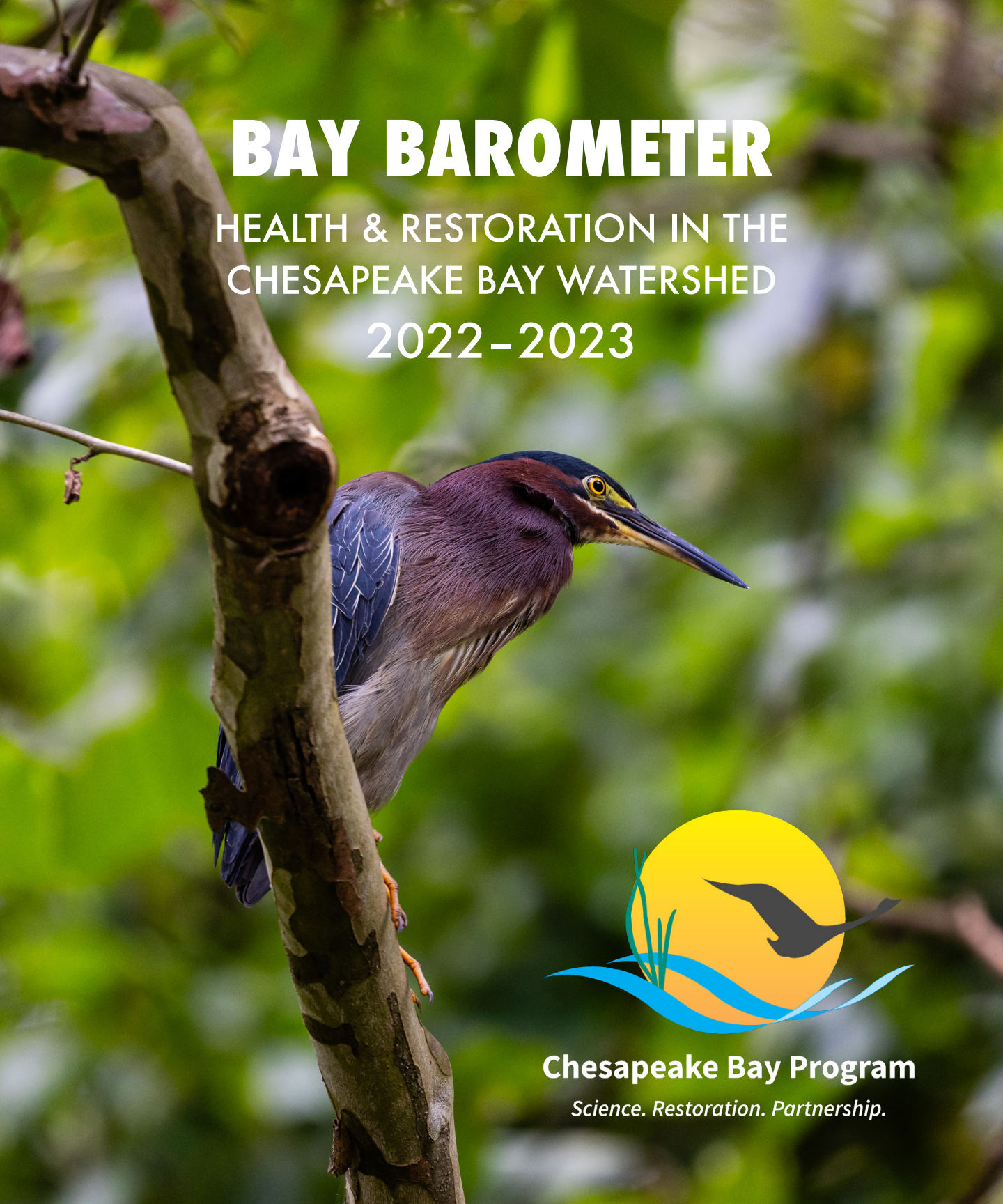


BAY BAROMETER

HEALTH & RESTORATION IN THE CHESAPEAKE BAY WATERSHED

2022–2023

Chesapeake Bay Program

Science. Restoration. Partnership.

40 years of science, restoration and partnership.

For the past 40 years, the Chesapeake Bay Program has guided the restoration and protection of the nation's largest estuary.

What started as a partnership between the Chesapeake Bay Commission, District of Columbia, Environmental Protection Agency, Maryland, Pennsylvania and Virginia on December 9, 1983, has grown to include Delaware, New York, West Virginia, as well as non-profit, academic, local government and business partners.

Our work is guided by the 10 goals and 31 outcomes of the *Chesapeake Bay Watershed Agreement*. The updates presented here are a subset of these outcomes, reflecting the most recent data and information.

For more information and the most up-to-date data, please visit: ChesapeakeProgress.com

Wildlife & Habitat

BLUE CRABS

In 2023, 152 million adult female blue crabs were estimated to be in the Chesapeake Bay, a 57% increase from the previous year. This number is lower than the target of 196 million, but well above the 72.5 million threshold that is considered the minimum sustainable level for female blue crabs in the Bay.

UNDERWATER GRASSES

Underwater grass acreage increased 12% from 2021 to 2022, meeting 59% of the goal to restore 130,000 acres by 2025. The 76,462 acres of grasses mapped in the Bay and tidal tributaries in 2022 provide critical habitat for young blue crabs and other wildlife.

WETLANDS

Between 2014 and 2022, 4,310 acres of wetlands were created or restored, while 60,666 acres were enhanced within the Chesapeake Bay watershed. This meets 5.1% of the goal to create or restore 85,000 acres of wetlands, and a 40.4% achievement of the goal to enhance 150,000 acres of wetlands by 2025.

FISH PASSAGE

By removing dams and through other fish passage projects, 30,562 miles of historical fish migration routes have been opened since 1988. While only 32.5 miles of passage were opened from 2020-2021, the Fish Passage Outcome met its original 2025 goal in 2016.

The world's largest oyster restoration project

Since 2014, 1,900 acres of oyster habitat have been restored in 11 Chesapeake Bay tributaries—making it the world's largest oyster restoration effort. Eight out of 11 tributaries are now complete, with work ongoing in the other three.

Clean Water & Conservation

WATER QUALITY

While 28.1% of the Chesapeake Bay met water quality standards in 2018-2020, the partnership supports a robust nontidal monitoring network of 123 stations and nine River Input Monitoring stations on the Bay's largest tributaries.

TOXIC CONTAMINANTS

In 2020, 78% of the Chesapeake Bay's tidal segments were partially or fully impaired by toxic contaminants, 5% less than in 2018. The impairments were due to PCBs, PFAS, metals and other toxics.

HEALTHY STREAMS

Between 2012-2017, 67.8% of stream miles in the watershed were considered healthy. This is a 6% increase from the previous monitoring period of 2006-2011 and close to meeting the outcome goal of a 10% increase in healthy streams over the baseline of 61%.

FOREST BUFFERS

The most forest buffers per year since 2016 were restored in 2021—230.5 miles. However, this only meets 25.6% of the annual goal of planting 900 miles of buffers each year.

Protecting 22% of the watershed's land

Since 2010, 1.6 million acres of land have been permanently protected in the Bay watershed, meeting 82% of the 2025 goal. This brings the total acres of protected lands to 9.1 million, roughly 22% of the region's land. The partnership is committed to conserving 30% of the watershed's land by 2030 in the alignment with the national land conservation goal.

Nutrient and Sediment Pollution

In 2010, the Chesapeake Bay Total Maximum Daily Load was developed to manage nitrogen, phosphorus and sediment pollution in the Chesapeake Bay watershed. Pollution reductions are estimated each year and compared to a 2009 baseline.

N Overall nitrogen decreased 14%, from 297.8 million pounds in 2009 to 255.9 million pounds in 2022.

P Overall phosphorus decreased 13%, from 17.2 million pounds in 2009 to 14.9 million pounds in 2022.

S Overall sediment decreased almost 5%, from 18.9 billion pounds in 2009 to just under 18 billion pounds in 2022.

As of 2022, the best management practices in place to reduce pollution are estimated to achieve 51% of the nitrogen reductions, 60% of the phosphorus reductions and 100% of the sediment reductions needed to attain applicable water quality standards when compared to the 2009 loads.

Climate Change & Land Use

In the cities, suburbs and towns throughout the watershed, **8,300 acres of trees** were planted, but **25,000 acres of trees** were lost between 2013/2014 and 2017/2018. This puts us off course to meet the Tree Canopy Outcome of adding 2,400 acres of trees by 2025.

As of 2018, **4.6% of land in the watershed** was made up of impervious surface (roughly 1,927,940 acres).

As of 2021, **average air temperature increased** in all climate divisions of the watershed when compared to the 100-year baseline (1901-2000). Increases ranged from 0.6°F per century in southern West Virginia to more than 2.8°F per century in Delaware.

As of 2021, the majority of the climate divisions in the watershed showed an **increase in total annual precipitation change** when compared to the 100-year baseline (1901-2000). Changes ranged from -0.20% in southern West Virginia to 17.6% in central New York.

Stewards of the Bay

DIVERSITY, EQUITY, INCLUSION AND JUSTICE (DEIJ)

Since the Executive Council signed the DEIJ directive in 2020, efforts to increase DEIJ across the partnership are increasing—from efforts to make funding more accessible and equitable, to improving workforce opportunities and providing training in best practices. Internally, the Chesapeake Bay Program's diversity survey indicated a slight increase in the percentage of partners who self-identified as people of color from 13.7% in 2016 to 15% in 2022.

ENVIRONMENTAL EDUCATION

Local education agencies self-reported that in 2022, 27% of elementary, 27% of middle and 22% of high schools provided system-wide Meaningful Watershed Educational Experiences to at least one grade level.

ENVIRONMENTAL LITERACY

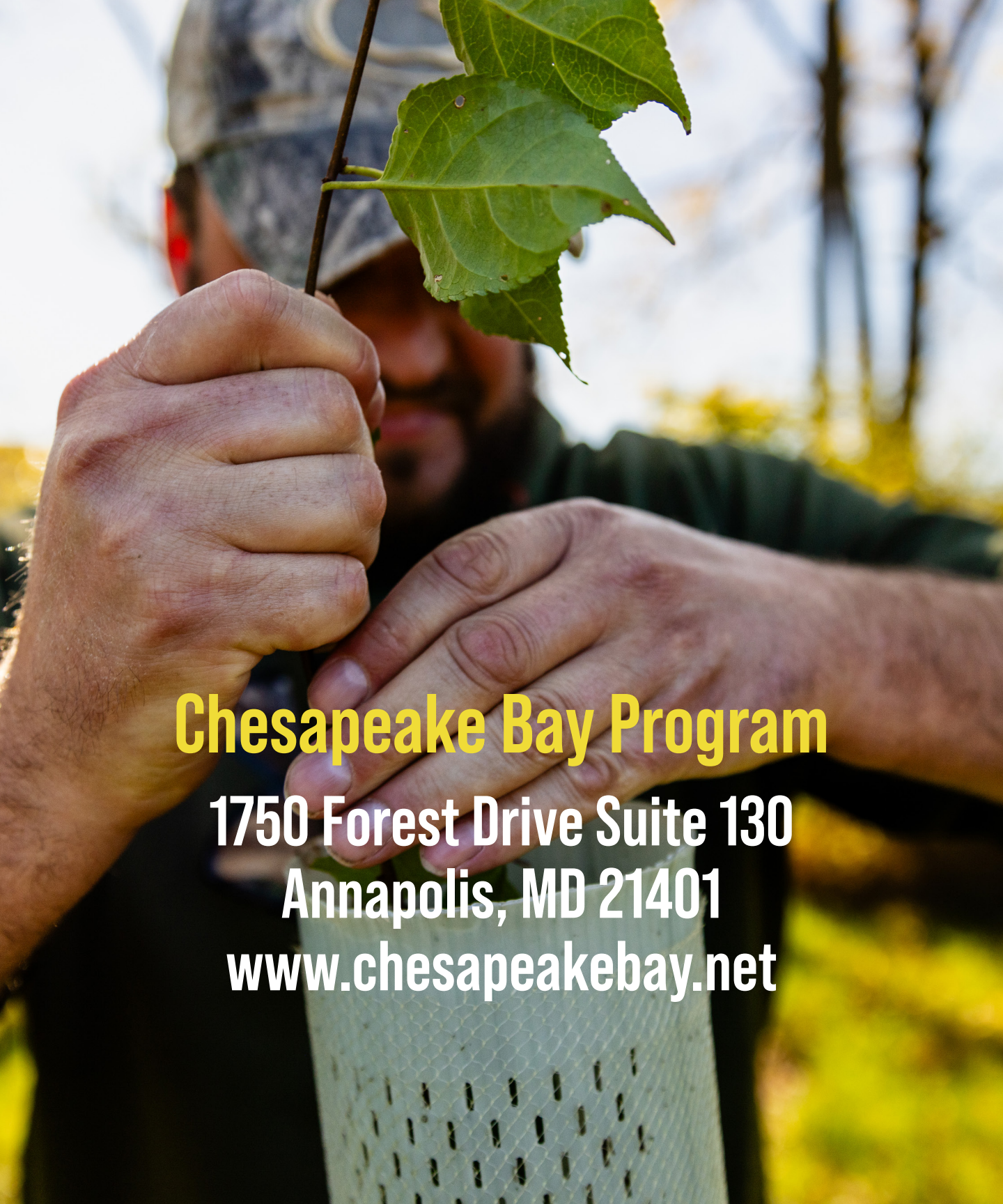
In 2022, 17% of school districts were "well-prepared" to put a comprehensive and systemic approach to environmental literacy in place. Fifty-six percent were "somewhat prepared" and 27% were "not prepared."

LOCAL GOVERNMENTS

Fifty-four percent of local elected officials within the watershed implemented on-the-ground projects to directly improve water quality or water resources in 2022.

PUBLIC ACCESS

Since 2010, 248 public access sites throughout the watershed were added for people to fish, swim, boat and recreate. This achieves 83% of the goal to add 300 new public access sites by 2025 and brings the total number to 1,379.



Chesapeake Bay Program

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