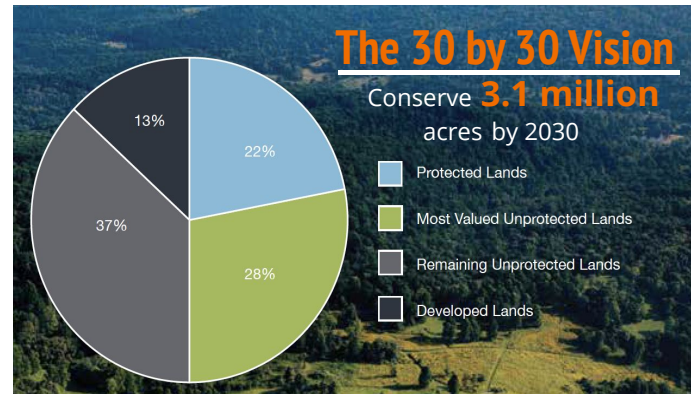


# An Analysis of Ecosystem Services and Benefits to Guide Conservation in the Chesapeake Bay Watershed

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## Background on the Chesapeake Bay Watershed

The Chesapeake Bay Watershed feeds into the largest estuary in the United States. It has a land to water ratio of 14:1, stretching from central New York state to the southern coastline of Virginia. This watershed is distributed across five state boundaries and Washington D.C., and drains approximately 64,000 square miles of farms, cities, and forests which are home to over 18 million people (CCP, 2019). The watershed is valuable for its fishing industry, agriculture, heritage, and recreation assets.



## 30 x 30 and 50 x 50 goals

Historically, water quality has been the primary ecosystem service used to promote conservation in the region. The Half-Earth theory of island biogeography posits that protecting 50% of Earth's surface can protect 85% of its biodiversity (Pimm et al. 2018). The "Global Deal for Nature" includes short-term goals, advocating to protect 30% of the world's native ecosystems by 2030 and 50% by 2050 (Dinerstien et al., 2019). Beyond biodiversity preservation, this goal has the potential to protect and enhance a wide variety of ecosystem services that provide critical support to human communities, infrastructure, and livelihoods. The Chesapeake Conservancy has adopted these goals for the Chesapeake Bay Watershed. The federal government recently incorporated 30 by 30 into its climate policy at the national scale as well, committing the U.S. to conserving 30% or more of its land and oceans by 2030 (The White House, 2021).



## The Chesapeake Conservancy

The Chesapeake Conservancy leverages public-private partnerships, regional collaborations, and technological innovations to promote conservation and restoration efforts across this complex watershed. We selected a subwatershed study area to map six factors and how they overlap to yield co-benefits. This analysis can contribute tools and resources for reaching the goals for 30% conserved by 2030 and 50% by 2050 across our study area, the Chesapeake Bay Watershed, and the planet as a whole.

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