Enhance localities' flexibility to conserve and restore tree canopy

According to the Virginia Department of Forestry, Virginia loses 16,000 acres of trees annually to development, disease, and storms. This loss of mature trees, particularly in urban and suburban localities, hinders Virginia's efforts to manage stormwater and achieve its commitments to restoring the Chesapeake Bay.

One acre of pavement releases 36 times more runoff than a forest. During a rainfall event of one inch, one acre of forest will release 750 gallons of runoff, while a parking lot will release 27,000 gallons. Mature canopies intercept and hold in their crowns up to 20% of annual rainfall—this reduces the volume of stormwater runoff going into the streams, carrying pollutants, and causing erosion.[1]

Depending on the species, trees absorb excess water and nutrients, preventing them from causing environmental harm. Trees also help to improve soils, allowing rain to soak into the ground and recharge groundwater supplies.

Trees cool the air by shading heat-absorbing asphalt on concrete streets and parking lots. A Science Museum of Virginia study found a 16-degree temperature difference between the higher canopy neighborhoods of Richmond and neighborhoods with less tree canopy. The study also found that 94 percent of studied areas display consistent elevated temperatures in formerly redlined areas relative to their non-redlined neighbors. These heat islands correlate to increased hospital visits for heat-related illnesses.[2]

To improve water quality and community health outcomes through expanded urban and suburban tree canopies, CBF supports legislation expanding localities' ability to set higher tree canopy goals under certain circumstances:

- To meet MS4 permits' pollution reduction requirements
- To address recurrent flooding in Chesapeake Bay Preservation (Resource Management) Areas
- To help remedy historic racial injustices by allowing these higher goals for any development project located in a formerly redlined area
- To ensure conformity with a locality's comprehensive plan

Conserving and expanding urban tree canopies help to restore our waterways and communities, and enhance the health and quality of life for Virginians.

For more information, please contact Peggy Sanner at 804/543-9768 or psanner@cbf.org.


QUERCUS BICOLOR
SWAMP WHITE OAK

Trees provide many benefits to communities

Trees slow down storm surges and absorb flood waters, gradually releasing water into the atmosphere and recharging groundwater.

Trees clean the air, removing harmful particulates that induce asthma and other respiratory illnesses.

Living in areas with high levels of trees and greenery can increase physical activity and has been associated with reduced levels of obesity. Children and youth living in greener neighborhoods have lower body mass indices.

A University of Massachusetts study found that each $1 million invested in activities like tree planting can produce as many as 39.7 direct, indirect, and induced forest-related jobs.[3]

Surveyed consumers claimed they were willing to pay 9% more in small cities and 12% more in large cities for equivalent goods and services in business districts having trees.[4]

New research by the USDA Forest Service found that urban/community forests could save Virginians approximately $175.5 million annually in reduced energy costs associated with heating and cooling residential buildings.[5]

Trees capture carbon, reducing the impact of climate change and extreme weather.

Trees create habitat for wildlife. In commerical settings, preserved mature trees support a larger and more diverse bird population than recently-planted saplings. And oak species support more than 500 species of lepidoptera (moths and butterflies) that birds feed their young.[6,7]

CHESAPEAKE BAY FOUNDATION
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Sources:

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[3] *Job Creation per $1 Million Investment*, https://grist.files.wordpress.com/2010/02/job_creation_for_investment_-_garrett-peltier.pdf (citing Heidi Garrett-Peltier & Robert Pollin, U. Mass. Political Econ. & Research Inst.).

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[7] *Bringing Nature Home*, Douglas W. Tallamy