Local Government Advisory Committee Meeting

March 24, 2023

www.chesapeaketrees.net

Tree Canopy Update

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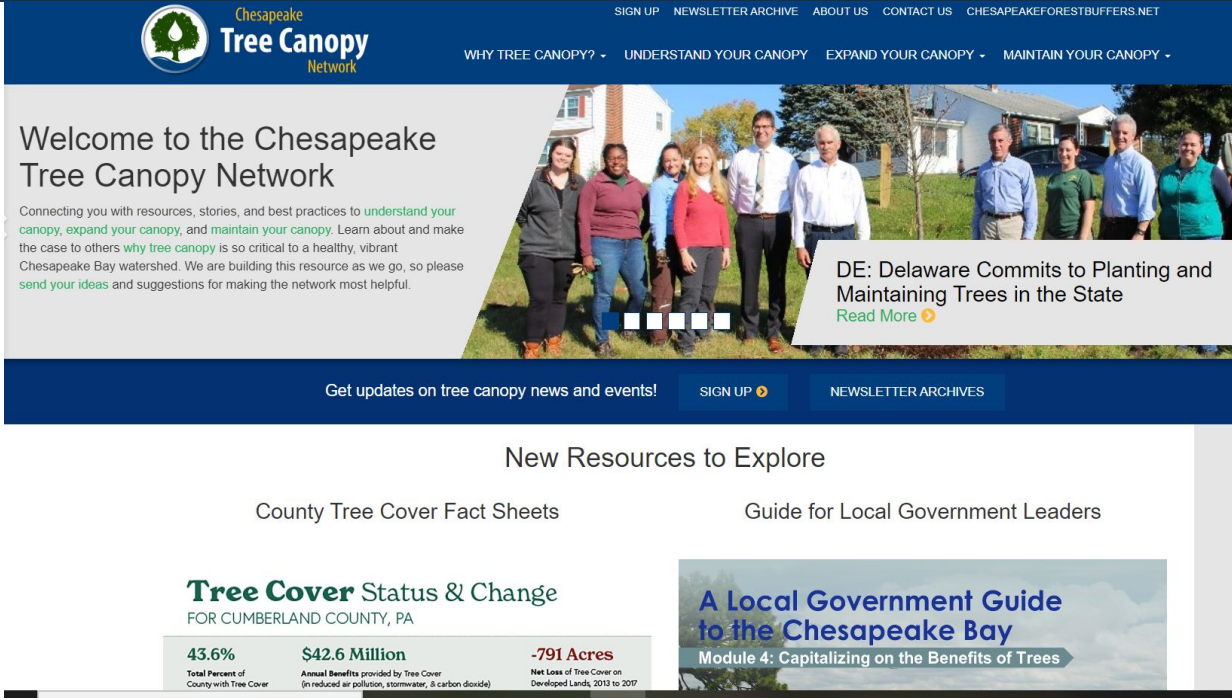


TREES in COMMUNITIES

CREATE VIBRANT COMMUNITIES

- Incorporating trees into common spaces in public housing increases social activities.[1]
- Having larger trees in yards and on the street can improve home values by 3%-15%.[2]
- Shoppers will spend 9%-12% more in areas with better tree canopy.[3]

REDUCE AIR POLLUTION

- Neighborhoods with lots of trees have lower childhood asthma rates.

PROVIDE SHADE & COOLING

- Tree canopy can reduce temperatures by up to 20 degrees, lowering health risks and utility bills.

IMPROVE HUMAN HEALTH

- Trees help reduce stress, lower blood pressure, and boost the immune system.
- Shade from trees reduces radiation that causes skin cancer.

CONTROL STORMWATER

- Tree roots can trap sediment and filter contaminants from stormwater.
- One tree can reduce stormwater runoff by 13,000 gallons per year.[4]

IMPROVE PUBLIC SAFETY

- Areas with increased green space have lower crime rates.[3]

Source:
Chesapeake Forest Restoration Strategy

Tree canopy outcome: what is our goal?

Through the *Chesapeake Bay Watershed Agreement*, the Chesapeake Bay Program has committed to...

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.**

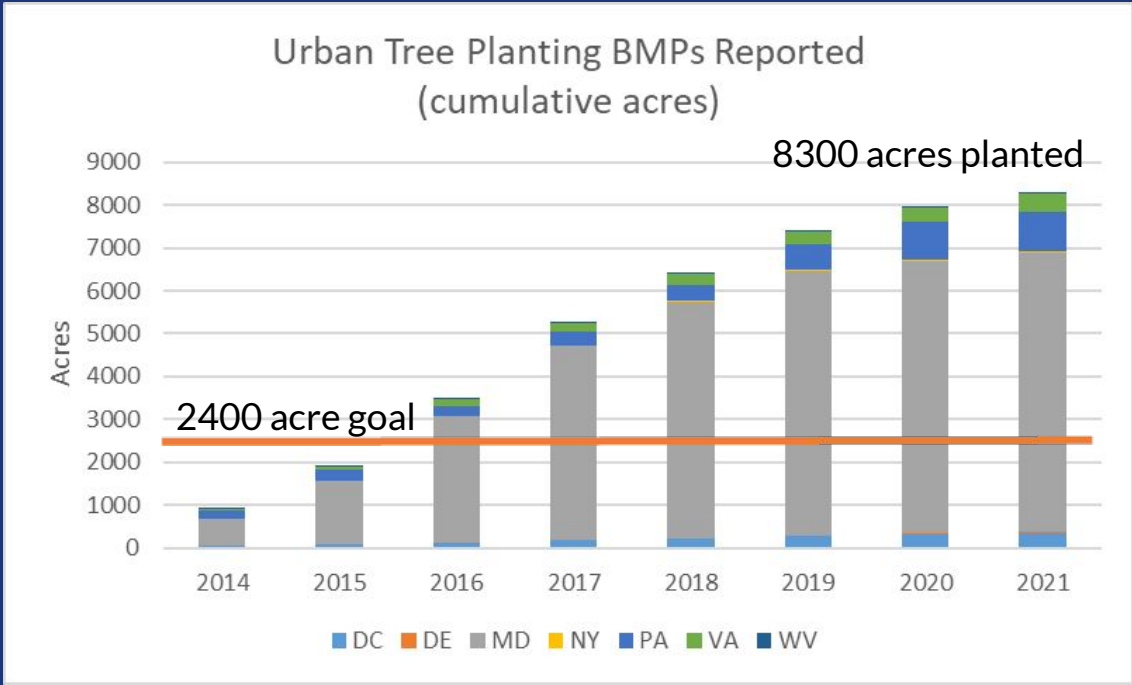
Goal: *Vital Habitats*
Outcome*: Tree Canopy*

It's not just about planting…

We track Tree Canopy progress in two ways:
1) States report three urban tree planting BMPs annually for TMDL
2) Long term progress analyzed through high resolution Land Cover/Land Use updates

How are we doing?

New Plantings



Land Cover Change Detected from Imagery

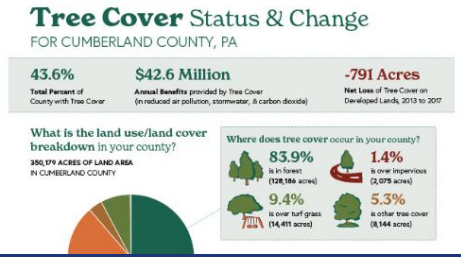
Tree Canopy Net Change in Census Places (2013/14-2017/18)	
Jurisdiction (CB Only)	**Net Change** (Acres)
Delaware	-28
DC	21
Maryland	-13,804
New York	78
Pennsylvania	-2,444
Virginia	-9,548
West Virginia	-107
Total	-25,832

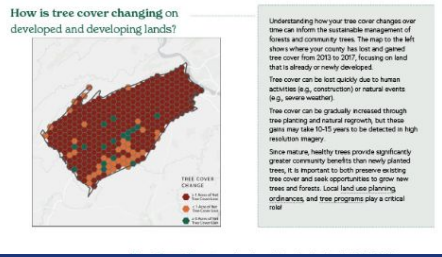
Understand your Canopy

The first step in working toward a tree canopy goal is understanding what you have. Thanks to the investments of Chesapeake Bay Program partners, we are fortunate to now have ready access to "wall-to-wall" high resolution land cover/land use data for the entire watershed, for the 2013/14 and 2017/18 time periods. Updated data based on 2021/2022 imagery are anticipated in 2024.

New county fact sheets are now available for all Chesapeake watershed counties sharing tree cover status, benefits (from i-Tree) and change information over the 2013/14 to 2017/18 time periods. Use the map viewer below to find your county's fact sheet. Municipal fact sheets will be produced later in 2023.

Visit the Data Guide for more information on the data sources included in the fact sheets, as well as additional resources. Access to land use/land cover map viewers, GIS datasets, and detailed methods documentation are available from Chesapeake Conservancy.





Featured Resources

Tree Cover Fact Sheet Data Guide

LEARN MORE »

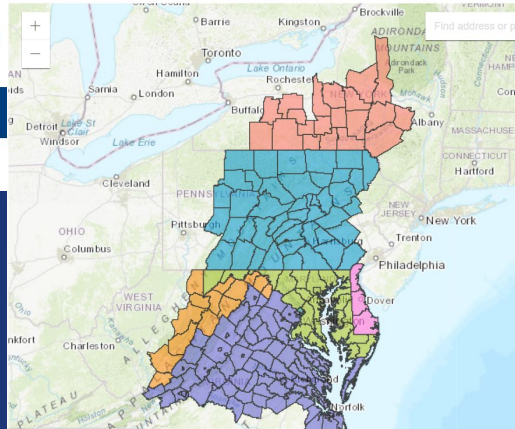
Chesapeake Land Cover/Land Use Data & Viewers

LEARN MORE »

Tree Equity Score Mapping Tool

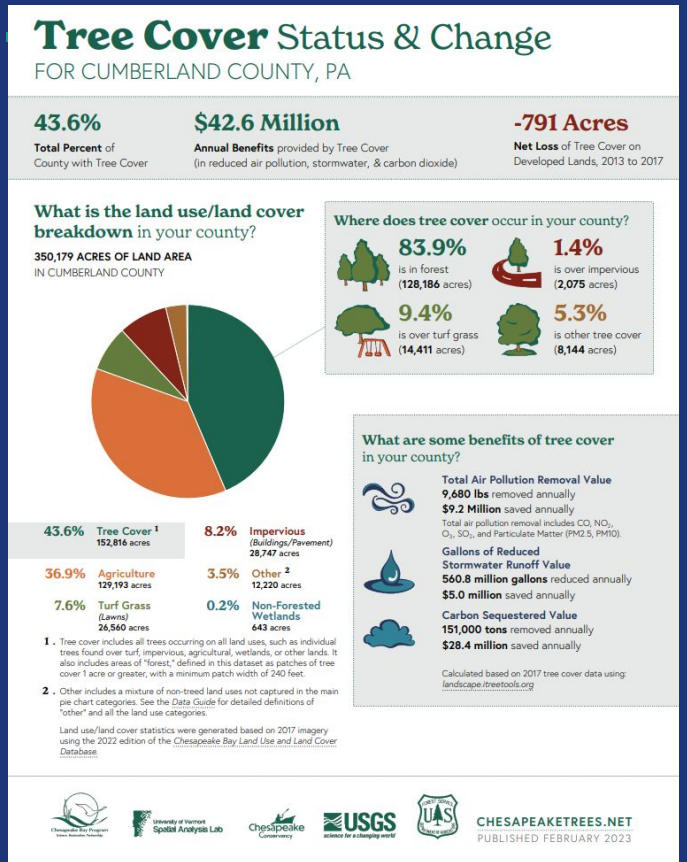
LEARN MORE »

Find your County Tree Cover Fact Sheet



https://chesapeaketrees.net/understand-your-canopy/

County Fact Sheets now available…(municipal coming later in 2023)



Tree Cover Status & Change
FOR CUMBERLAND COUNTY, PA

43.6%
Total Percent of County with Tree Cover

$42.6 Million
Annual Benefits provided by Tree Cover (in reduced air pollution, stormwater, & carbon dioxide)

-791 Acres
Net Loss of Tree Cover on Developed Lands, 2013 to 2017

What is the land use/land cover breakdown in your county?

350,179 ACRES OF LAND AREA
IN CUMBERLAND COUNTY

Where does tree cover occur in your county?

- **83.9%** is in forest (**128,186** acres)
- **1.4%** is over impervious (**2,075** acres)
- **9.4%** is over turf grass (**14,411** acres)
- **5.3%** is other tree cover (**8,144** acres)

43.6%	Tree Cover [1] 152,816 acres	8.2%	Impervious (Buildings/Pavement) 28,747 acres
36.9%	Agriculture 129,193 acres	3.5%	Other [2] 12,220 acres
7.6%	Turf Grass (Lawns) 26,560 acres	0.2%	Non-Forested Wetlands 643 acres

1. Tree cover includes all trees occurring on all land uses, such as individual trees found over turf, impervious, agricultural, wetlands, or other lands. It also includes areas of "forest," defined in this dataset as patches of tree cover 1 acre or greater, with a minimum patch width of 240 feet.
2. Other includes a mixture of non-treed land uses not captured in the main pie chart categories. See the *Data Guide* for detailed definitions of "other" and all the land use categories.

Land use/land cover statistics were generated based on 2017 imagery using the 2022 edition of the *Chesapeake Bay Land Use and Land Cover Database*.

What are some benefits of tree cover in your county?

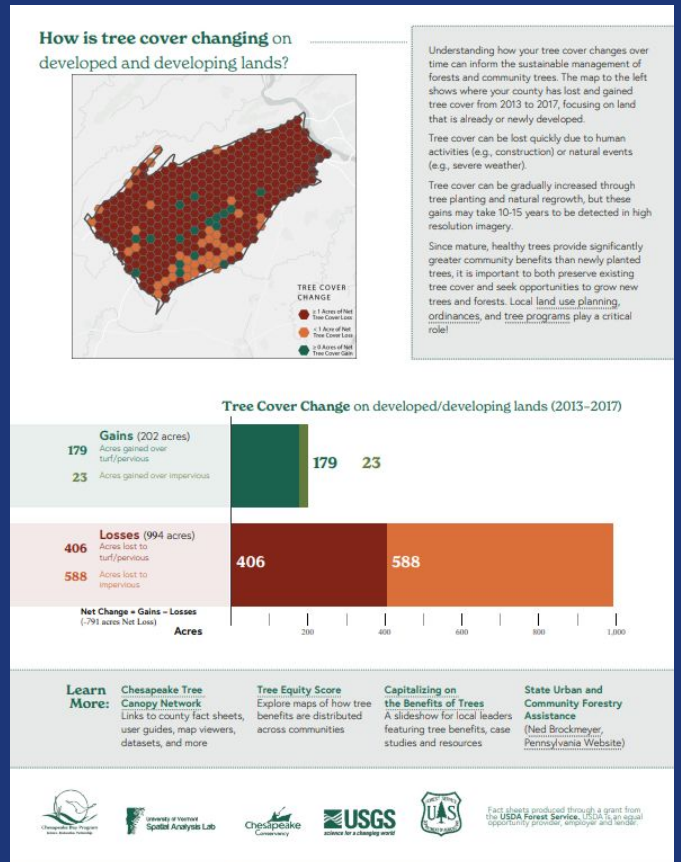
Total Air Pollution Removal Value
9,680 lbs removed annually
$9.2 Million saved annually
Total air pollution removal includes CO, NO_2, O_3, SO_2, and Particulate Matter (PM2.5, PM10).

Gallons of Reduced Stormwater Runoff Value
560.8 million gallons reduced annually
$5.0 million saved annually

Carbon Sequestered Value
151,000 tons removed annually
$28.4 million saved annually

Calculated based on 2017 tree cover data using: *landscape.itreetools.org*

CHESAPEAKETREES.NET
PUBLISHED FEBRUARY 2023



How is tree cover changing on developed and developing lands?

Understanding how your tree cover changes over time can inform the sustainable management of forests and community trees. The map to the left shows where your county has lost and gained tree cover from 2013 to 2017, focusing on land that is already or newly developed.

Tree cover can be lost quickly due to human activities (e.g., construction) or natural events (e.g., severe weather).

Tree cover can be gradually increased through tree planting and natural regrowth, but these gains may take 10-15 years to be detected in high resolution imagery.

Since mature, healthy trees provide significantly greater community benefits than newly planted trees, it is important to both preserve existing tree cover and seek opportunities to grow new trees and forests. Local land use planning, ordinances, and tree programs play a critical role!

Tree Cover Change on developed/developing lands (2013–2017)

Learn More:

- **Chesapeake Tree Canopy Network** — Links to county fact sheets, user guides, map viewers, datasets, and more
- **Tree Equity Score** — Explore maps of how tree benefits are distributed across communities
- **Capitalizing on the Benefits of Trees** — A slideshow for local leaders featuring tree benefits, case studies and resources
- **State Urban and Community Forestry Assistance** (Ned Brockmeyer, Pennsylvania Website)

Fact sheets produced through a grant from the USDA Forest Service. USDA is an equal opportunity provider, employer and lender.

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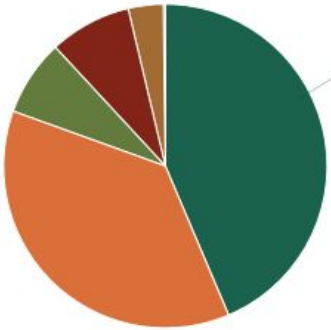

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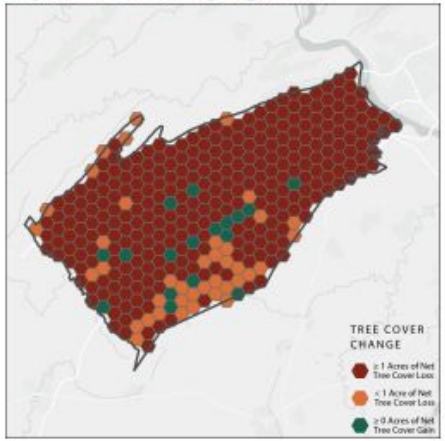

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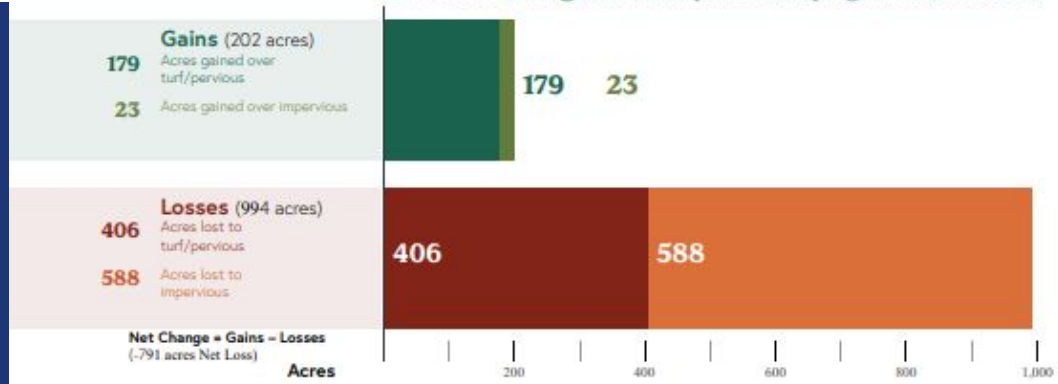


Additional Resources

Chesapeake Tree Canopy Network

SIGN UP NEWSLETTER ARCHIVE ABOUT US CONTACT US CHESAPEAKEFORESTBUFFERS.NET

WHY TREE CANOPY? UNDERSTAND YOUR CANOPY EXPAND YOUR CANOPY MAINTAIN YOUR CANOPY

Home » Local Government Guide: Capitalizing on the Benefits of Trees

Local Government Guide: Capitalizing on the Benefits of Trees

A Local Government Guide to the Chesapeake Bay is a seven-module series created to support decision-making by local officials. As demonstrated in Module 4 (Capitalizing on the Benefits of Trees), local officials can achieve mutually beneficial outcomes by prioritizing local economic development, infrastructure resiliency, public health, and education, while also protecting and enhancing the environment. Please use the below resources widely to help advance local tree canopy efforts. As a companion product, State Tree Resource Guides were created to highlight the state programs and grant opportunities that can help local governments achieve their goals.

Resources to Download

- Capitalizing on the Benefits of Trees (PPT)
- Capitalizing on the Benefits of Trees (PDF)
- Fact Sheet: Capitalizing on the Benefits of Trees
- Delaware Tree Resource Guide
- Maryland Tree Resource Guide
- New York Tree Resource Guide
- Pennsylvania Tree Resource Guide
- Virginia Tree Resource Guide
- West Virginia Tree Resource Guide

Additional Resources

TREE EQUITY SCORE | American Forests

MENU | MAP

Find your score and help create Tree Equity in cities and towns across America.

Search for your town

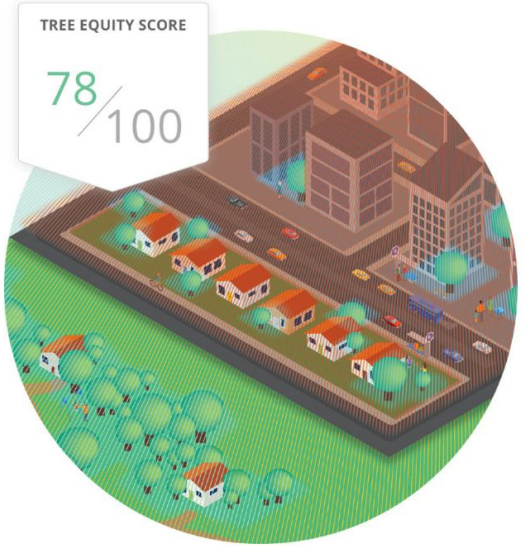
Tree Equity Score

A map of tree cover in any city in the United States is too often a map of race and income. This is unacceptable. Trees are critical infrastructure that every person in every neighborhood deserves. Trees can help address damaging environmental inequities like air pollution.

The score evaluates data from each neighborhood's:

- Existing tree canopy
- Population density
- Income
- Employment
- Surface temperature
- Race
- Age
- Health

These metrics are combined into a single score between 0 and 100. A score of 100 means that a neighborhood has achieved Tree Equity. To learn more, visit our methodology page.



Tree Canopy Funding & Policy Roundtable

(FY22 GIT-Funded

Virtual: March 13-14
Agenda, slides and recordings coming will be shared soon!

Roundtable Outcomes:

Accelerate equitable, climate-resilient tree canopy implementation across the watershed

- Equip local and state governments to advance coordinated solution pathways to expand urban tree canopy in the Chesapeake Bay Watershed
- Identify suite of strategies and specific actions (funding, policy, programmatic) to advance tree goals
- **Develop action plans in each Bay Jurisdiction**

Questions & Discussion

- Ideas for getting the Fact Sheets, Resources & Data out and in use by local governments?
- Input on local/state tree canopy funding, policy, or programmatic needs?

Thank you!
Follow up:
Julie Mawhorter, julie.Mawhorter@usda.gov