


Forestry Workgroup – October 2, 2024

Chesapeake Bay Program



Tree Canopy Project Updates


Julie Mawhorter
USDA Forest Service
julie.mawhorter@usda.gov

SIGN UP NEWSLETTER ARCHIVE ABOUT US CONTACT US CHESAPEAKEFORESTBUFFERS.NET

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

Welcome to the Chesapeake Tree Canopy Network

Connecting you with resources, stories, and best practices to [understand your canopy](#), [expand your canopy](#), and [maintain your canopy](#). Learn about and make the case to others [why tree canopy](#) is so critical to a healthy, vibrant Chesapeake Bay watershed. We are building this resource as we go, so please [send your ideas](#) and suggestions for making the network most helpful.



Richmond, VA: An Urban Forestry Collaborative Plants Deep Community Roots
[Read More](#)

Get updates on tree canopy news and events! SIGN UP NEWSLETTER ARCHIVES

New Resources to Explore

County Tree Cover Fact Sheets

Guide for Local Government Leaders

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, 2012 to 2017
---------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------


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

350,179 ACRES OF LAND AREA IN CUMBERLAND COUNTY


83.9% is in forest (128,186 acres)	1.4% is over impervious (2,075 acres)	5.3% is other tree cover (8,144 acres)
-------------------------------------------------	----------------------------------------------------	-----------------------------------------------------

A Local Government Guide to the Chesapeake Bay

Module 4: Capitalizing on the Benefits of Trees



www.chesapeaketrees.net

Privacy Policy

Chesapeake Tree Canopy Summits

Hosted by Alliance for the Chesapeake Bay in partnership with the Forestry Workgroup

- First in 2014, Linthicum, MD
 - Presentations, breakout groups on tree canopy needs to inform longterm Management Strategy
- Second in 2020, Patuxent Wildlife Refuge, MD
 - Sessions on financing, forest-friendly ordinances, stormwater, data tools, equitable community engagement
 - Both were 2 day, free events, ~100 participants, invite-only, list created by state leads to try to get representation across the 6 states and DC

Chesapeake Tree Canopy Summits

Hosted by Alliance for the Chesapeake Bay in partnership with the Forestry Workgroup

- Planning for next Summit 2025
 - Recent Tree Canopy Workplans included plans for a virtual Summit to make the content more open and accessible for wide participation by practitioners across the watershed, but had to be postponed
- Other recent virtual events held (GIT-funded)
 - March 2023 [Chesapeake Tree Canopy Funding & Policy Roundtable](#) (2-day)
 - August 2024 [Urban Tree Supply Forum](#) (1-day)

Chesapeake Tree Canopy Summits

Hosted by Alliance for the
Chesapeake Bay in partnership
with the Forestry Workgroup

- Planning for next Summit 2025 – seeking input
 - Virtual or in-person? Location ideas?
 - Timing – Jan/Feb 2025 or summer (avoid spring planting season)
 - Length (1 or 2 days, or half-day virtual sessions)
 - Thoughts on goals of Summit, audience, priority topics?
- Let us know if you'd like to be involved in the planning (email kesha.braunskill@usda.gov)

Tree Cover Status & Change Fact Sheets

- Produced for all CB counties in March 2023 (2013/14 – 2017/18 time period)
 - <https://chesapeaketrees.net/understand-your-canopy/>
- Working with Chesapeake Conservancy and partners to produce at municipal scale using latest data (2013/14 – 2021/2022)

Tree Cover Status & Change Fact Sheets

- Proposal to create for all incorporated census places (local government entity for decision making, ~770 in watershed)
- Use same fact sheet [template](#), minor edits as needed
- [Fact Sheet Data Guide](#) will also be updated, provides more context about data sources and resources

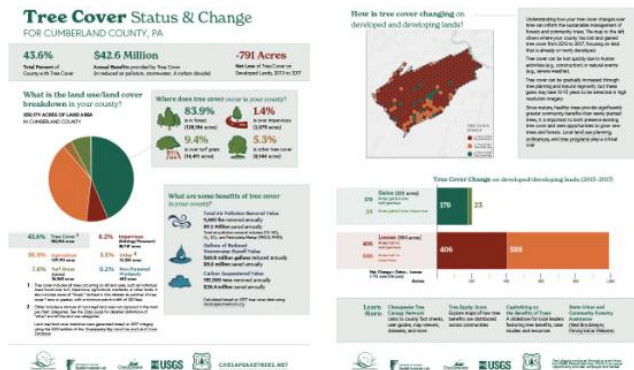
[Home](#) > [Understand your Canopy](#)

Understand your Canopy

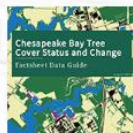
The first step in working toward a tree canopy goal is understanding what you have. Thanks to the investments of Chesapeake Bay Program partners, we are fortunate to now have ready access to "wall-to-wall" high resolution land cover/land use data for the entire watershed, for the 2013/14 and 2017/18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



County fact sheets hosted at:

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

Tree Cover Status & Change

FOR CUMBERLAND COUNTY, PA

43.6%

Total Percent of
County with Tree Cover

\$42.6 Million

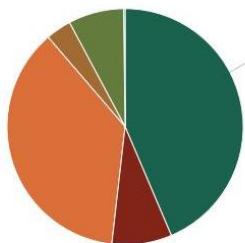
Annual Benefits provided by Tree Cover
(in reduced air pollution, stormwater, & carbon dioxide)

-791 Acres

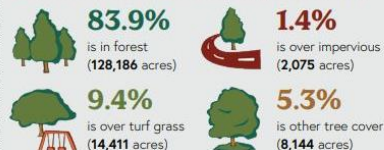
Net Loss of Tree Cover on
Developed Lands, 2013 to 2017

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?



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_x, O₃, SO₂, 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.treetools.org

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

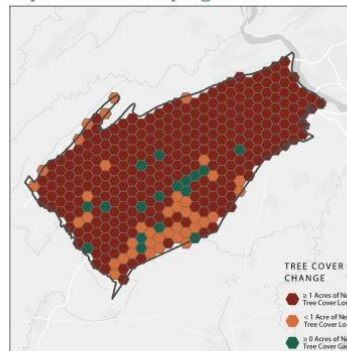
7.6% Turf Grass
(Lawns)
26,560 acres

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-forest 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*.

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)

Gains (202 acres)
179 Acres gained over turf/impervious
23 Acres gained over impervious



Losses (994 acres)
406 Acres lost to turf/impervious
588 Acres lost to impervious



Net Change = Gains - Losses
(-791 acres Net Loss)

Acres

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)



CHESAPEAKETREES.NET
PUBLISHED FEBRUARY 2023



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

Tree Cover Status & Change

FOR FAIRFAX CITY, VA

40.6%

Total Percent of
City with Tree Cover

\$861,000

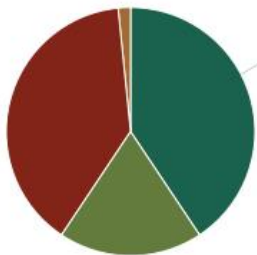
Annual Benefits provided by Tree Cover
(in reduced air pollution, stormwater, & carbon dioxide)

-10 Acres

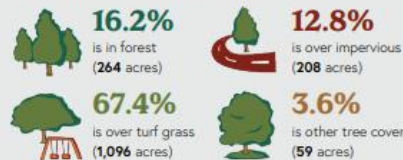
Net Loss of Tree Cover on
Developed Lands, 2014 to 2018

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

4,007 ACRES OF LAND AREA
IN FAIRFAX CITY



Where does tree cover occur in your city?



What are some benefits of tree cover in your city?



Total Air Pollution Removal Value
63,000 lbs removed annually
\$322,000 saved annually
Total air pollution removal includes CO₂, NO₂, O₃, SO₂, and Particulate Matter (PM2.5, PM10).



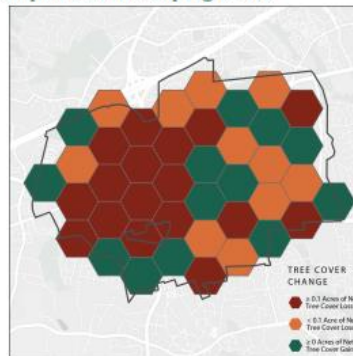
Gallons of Reduced Stormwater Runoff Value
19.8 million gallons reduced annually
\$176,600 saved annually



Carbon Sequestered Value
2,000 tons removed annually
\$0.4 million saved annually

Calculated based on 2018 tree cover data using:
landscape.treetools.org

How is tree cover changing on developed and developing lands?



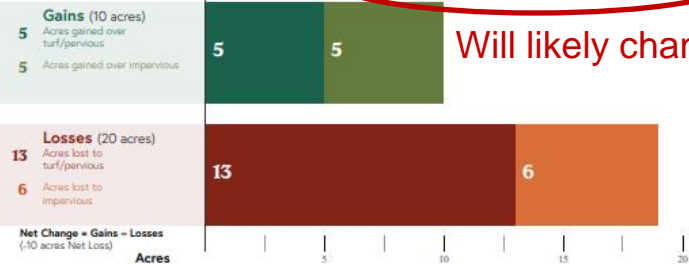
Understanding how your tree cover changes over time can inform the sustainable management of forests and community trees. The map to the left shows where your city has lost and gained tree cover from 2014 to 2018, focusing on land that is already or newly developed.

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 (2014-2018)



Will likely change this

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

(Lara Johnson, Virginia Website)



CHESAPEAKE TREES.NET
PUBLISHED FEBRUARY 2023



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

Tree Cover Status & Change Fact Sheets

- Please send feedback by 10/18:
 - Review posted spreadsheet of incorporated census places to see if there are any important communities missing (we can also send you geodatabase file if preferred)
 - Review fact sheet [template](#) and send any suggestions for minor edits to wording

Send feedback to Bay Hanson, Elizabeth.Hanson@usda.gov