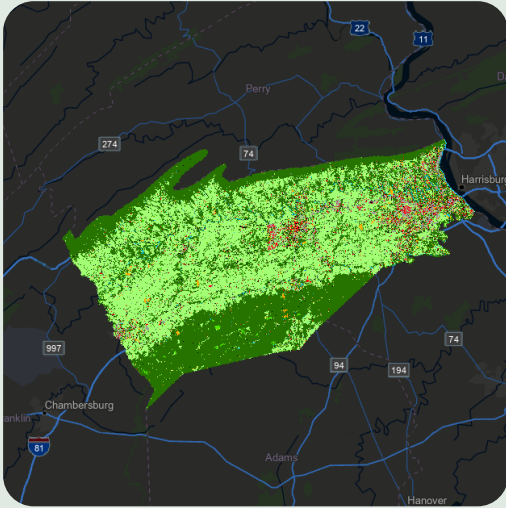
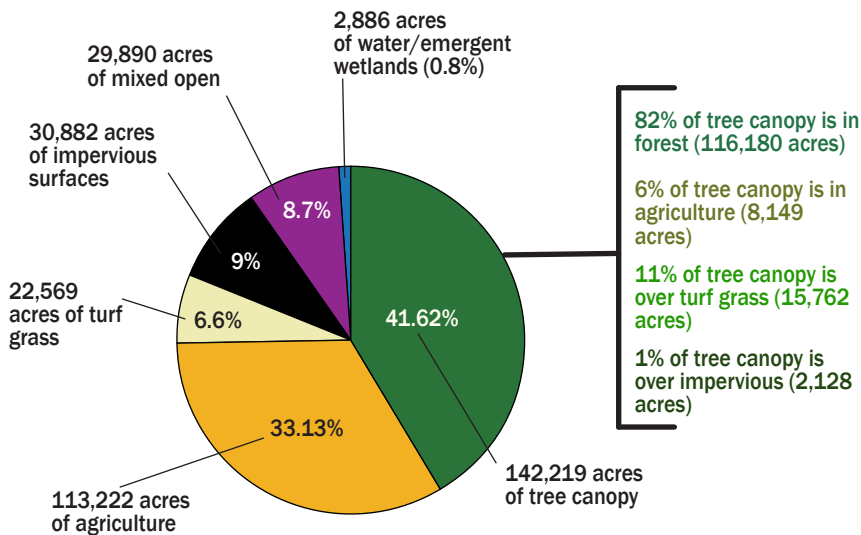


Tree Canopy Status and Change for Cumberland County, PA



Land Cover, Cumberland, Pennsylvania

Trees provide multiple benefits to communities, from improving the air we breathe to reducing flooding in our neighborhoods. Thanks to new technology like high resolution imagery and LIDAR (Light Detection and Ranging), counties, communities and even you now have the ability to see how the land and tree cover in your region has changed over time. Data are currently available for the time periods of 2013/2014 and 2017/2018 at chesapeakeconservancy.org.



Out of the **341,668 acres** of land in Cumberland, they are measured in a variety of ways through our land use classifications. In this classification, **agriculture** is land classified as cropland, pasture, or orchards, **turf grass** is land that has been altered through compaction, fertilization or removal of organic material, and **mixed open** is any herbaceous or barren land that is not turf grass or agriculture. Finally, in this work, **forest** is defined as tree canopy that are in patches over an acre in area and have a minimum radius of 120 feet.

Based on the latest high-resolution imagery (2018), i-Tree Landscape estimates that the trees in your county provide the following benefits:



Total Air Pollution Removal Value

9,665,973 lbs removed annually | \$9,162,946 saved annually

Total air pollution removal includes CO, NO₂, O₃, PM_{2.5}, SO₂, and PM₁₀. The estimated value of the air pollution reduction is based on local health impact estimates from the US EPA BenMap model.



Gallons of Reduced Stormwater Runoff Value

560,088,604 gallons reduced annually | \$5,004,953 saved annually

The value of avoided runoff is estimated using the iTree Eco model estimates from the US EPA BenMap model.



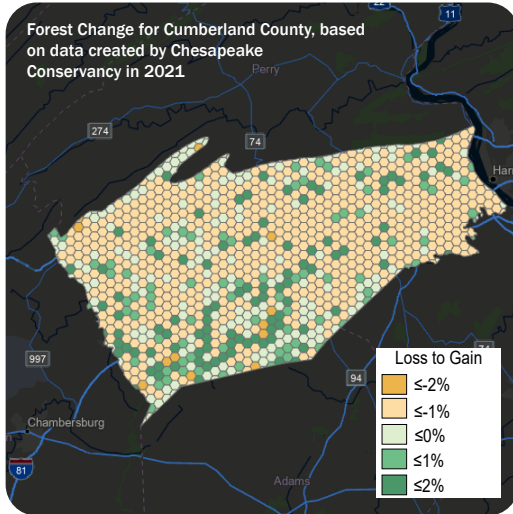
Carbon Sequestered Value

120,250 tons removed annually | \$10,594 saved annually

The value of carbon sequestration is estimated at \$188 per metric ton (Interagency Working Group, 2016)

More information on this and i-Tree Landscape can be found at: landscape.itreetools.org

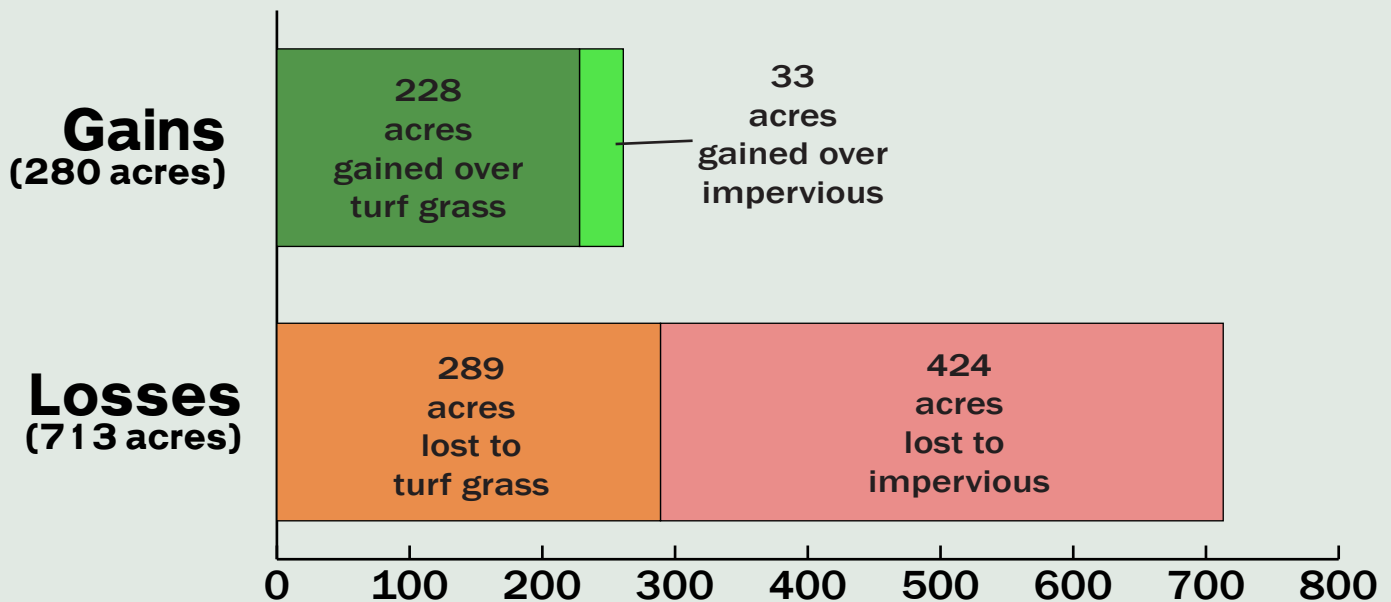
Tree Canopy Status and Change for Cumberland County, PA



Tree Canopy Change, Cumberland, Pennsylvania
(at a one square mile scale)

To ensure that our forests are properly managed so they can be enjoyed for years to come, it is important to understand how tree canopy changes over time. The map to the left shows a high-level summary of which parts of your county have experienced tree canopy gain, loss or minimal change. Whether due to human activities (e.g., construction) or natural events (e.g., severe weather), tree canopy loss can be instantaneous and dramatic. New plantings and natural regeneration and growth, increase tree canopy, but are slow processes that take time and commitment. Maintaining your county's tree canopy for future residents and visitors to enjoy, require investments in efforts that preserve existing healthy tree canopy, as well as planting new trees.

How is tree canopy changing on developed lands?



For more information, please reference these following sources:

ChesapeakeProgress:

(www.chesapeakeprogress.com/abundant-life/tree-canopy)

Chesapeake Conservancy Land Use:

(www.chesapeakeconservancy.org/what-we-do/innovate/land-use-change)

Chesapeake Tree Canopy Network:

(chesapeaketrees.net)

Capitalizing on the Benefits of Trees:

(www.chesapeakebay.net/channel_files/42983/module_4_-_capitalizing_on_the_benefits_of_trees.pdf)