

Tree Cover Status & Change

FOR ROANOKE COUNTY, VA 2014-2021

73%

Total percent of land with Tree Cover

\$77.6 million

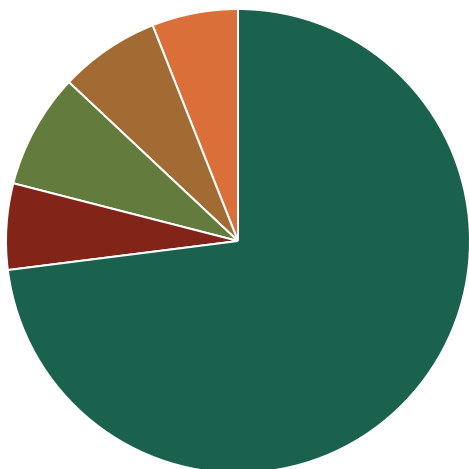
Annual benefits provided by Tree Cover (in reduced air pollution, stormwater, & carbon dioxide)

-60 Acres

Net loss of Tree Cover on developed lands, 2014 to 2021

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

160,239 ACRES OF LAND AREA
IN ROANOKE COUNTY



73% **Tree Cover¹**
117,529 acres

8% **Turf Grass**
12,945 acres

6% **Agriculture**
8,962 acres

6% **Impervious**
10,009 acres

7% **Other²**
10,731 acres

< 0.1% **Non-Forested Wetlands**
61 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 36 meters.
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 as well as accuracy statistics.

Land use/land cover statistics were generated based on 2021 imagery using the 2024 edition of the [Chesapeake Bay Land Use and Land Cover Database](#).

Where does tree cover occur in your community?



94%
is in forest
(109,924 acres)



< 1%
is over impervious
(472 acres)



3%
is over turf grass
(3,493 acres)



3%
is other tree cover
(3,641 acres)

What are some benefits of tree cover in your community?



Total Air Pollution Removal Value
5.6 million lbs removed annually
\$2.3 million saved annually
Total air pollution removal includes CO, NO₂, O₃, SO₂, and Particulate Matter (PM2.5, PM10).



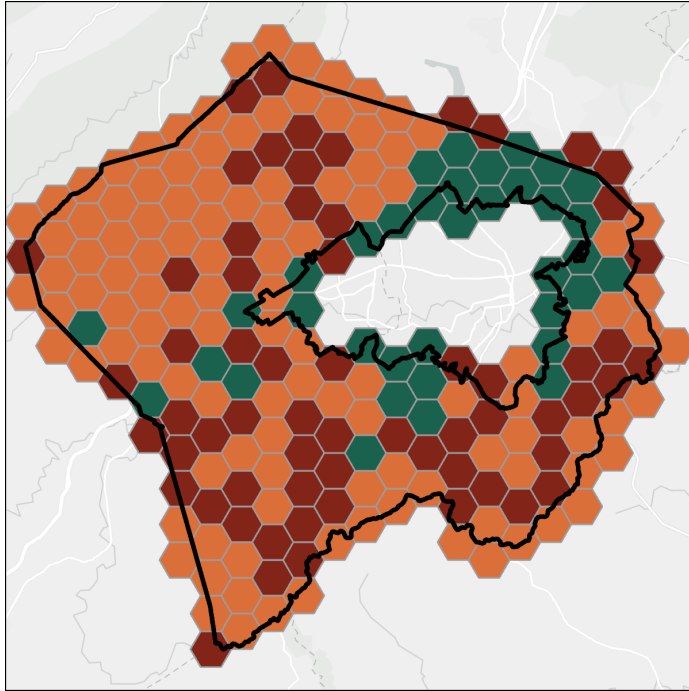
Gallons of Reduced Stormwater Runoff Value
556.7 million gallons reduced annually
\$5.0 million saved annually



Carbon Sequestered Value
147,000 tons removed annually
\$70.3 million saved annually

Calculated based on 2021 tree cover data using: landscape.itreetools.org

How is tree cover changing on developed and developing lands?



■ > 1 Acres Net Tree Cover loss
 ■ Minimal Tree Cover Change (± 1 Acres)
 ■ > 1 Acres Net Tree Cover gain

*Hexagons that are >90% water are not shown on the map.

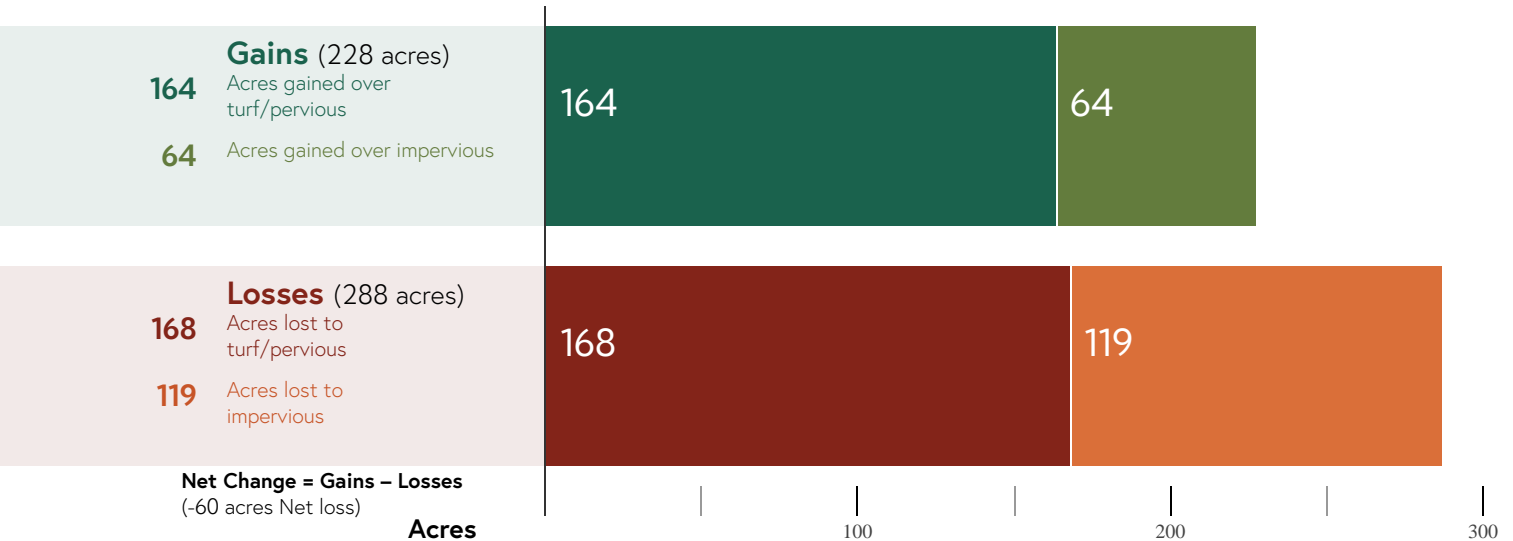
Understanding how your tree cover changes over time can inform the sustainable management of forests and community trees. The map to the left shows where your community has lost and gained tree cover from 2014 to 2021, focusing on land that is already or newly developed.

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 (2014–2021)



Learn More:

Chesapeake Tree Canopy Network

Links to municipal and county fact sheets, user guides, map viewers, datasets, and more

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)



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