

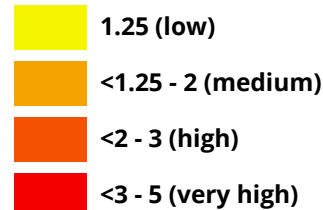
COOLING FAIRFAX CITY

urban forests protect us from rising heat

THE HEAT ISLAND EFFECT

- In urban areas, gray infrastructure like buildings and roads absorb and radiate the sun's heat.
- Compared to rural areas with more vegetation, these “heat islands” average 1–7°F higher temperatures during the day and 2–5°F higher temperatures at night.¹
- By 2065, the D.C. area is projected to have 50 to 100 days per year with temperatures above 95°F (under a high emissions scenario).²

Urban Heat Severity (°F above average)



*Analyzed with 2021 land cover data. Outlined areas are the city's five Activity Centers.



IMPACTS OF EXTREME HEAT

Heat is the number one cause of weather-related injuries and fatalities in the D.C. area.²

The elderly, small children, persons with health risks, low-income populations, persons experiencing homelessness, athletes, and outdoor workers are especially at risk. Populations vulnerable to extreme heat may face access barriers to tree canopy, air conditioning, housing, and cooling centers.

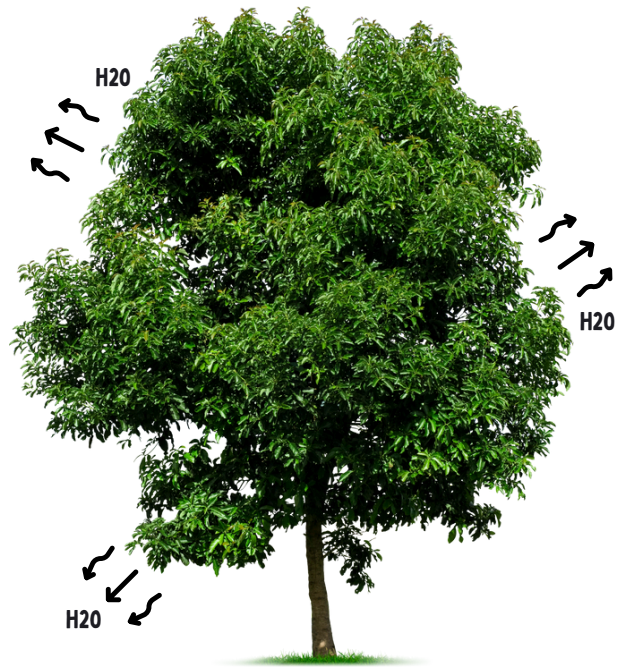
Extreme heat can cause serious and potentially fatal health problems such as dehydration, heat exhaustion, respiratory problems, and heatstroke, especially when temperatures stay hot during the night.

According to data from the Virginia Department of Health, there were 3,248 heat-related Emergency Room and Urgent Care visits in Virginia during May-September 2024.³

Learn the signs of heat-related illnesses and prevention tips at [cdc.gov/extreme-heat](https://www.cdc.gov/extreme-heat).

HOW TREES HELP

- Suburban areas with mature trees are 4–6°F cooler than new suburbs without trees.⁴
- Shade trees can reduce energy demand for air conditioning in nearby buildings by 10 percent.⁴
- Trees cool their surroundings and lower nighttime temperatures by releasing water through their leaves. A large oak tree can transpire 40,000 gallons of water per year.⁴
- Urban forests absorb and store heat-trapping gases that contribute to warming temperatures.⁴

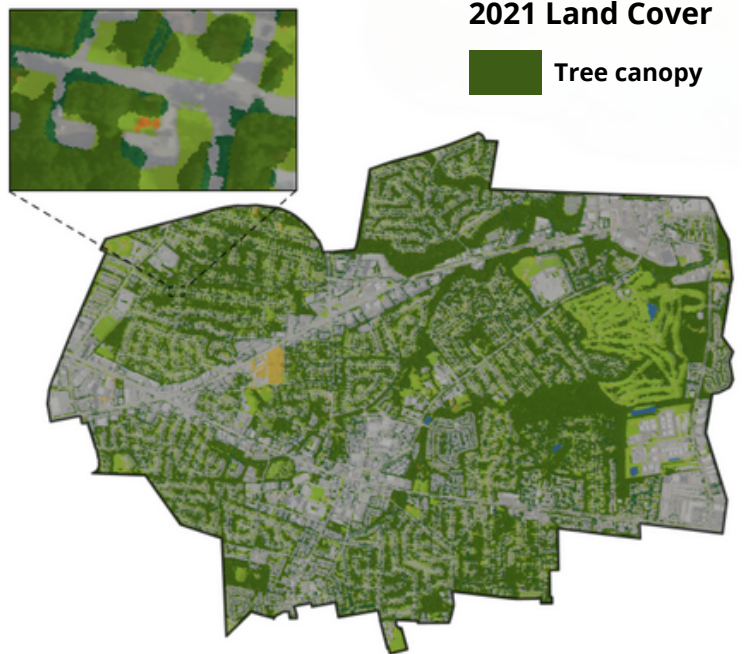


FAIRFAX'S URBAN FOREST

Tree canopy covers 40% of the city, but that number could grow to 55% if trees are planted in underutilized green space.⁴

On public lands, the city is protecting and restoring existing forests, optimizing pocket parks in highly urbanized areas, and establishing and connecting green corridors via streets and residential areas.

On private lands, residents can help combat extreme heat and other climate change impacts by planting and caring for trees on their own properties.

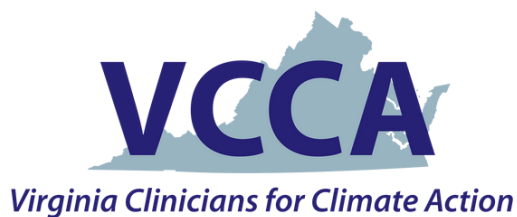


References:

1. Heat Island Effect. <https://www.epa.gov/heatislands/>
2. Metropolitan Washington 2030 Climate and Energy Action Plan. <https://www.mwcog.org/documents/2020/11/18/metropolitan-washington-2030-climate-and-energy-action-plan/>
3. Heat-related Illness Surveillance. <https://www.vdh.virginia.gov/surveillance-and-investigation/syndromic-surveillance/hri-surveillance/>
4. Reducing Urban Heat Islands: Compendium of Strategies. <https://www.epa.gov/heatislands/heat-island-compendium>
5. Urban Tree Canopy Assessment (2023). <https://www.fairfaxva.gov/home/showpublisheddocument/21773/638319277457330000/>



[fairfaxva.gov/trees](https://www.fairfaxva.gov/trees)



[virginiaclinicians.org](https://www.virginiaclinicians.org)