

AN ASSESSMENT OF EXISTING AND CHANGING URBAN TREE CANOPY



SANTA MONICA



5,445 LAND ACRES
91,000 RESIDENTS

URBAN TREE CANOPY



2014: 708 ACRES
2020: 684 ACRES

ECOSYSTEM BENEFITS



2014: \$771K PER YR
2020: \$750K PER YR

The urban forest in Santa Monica is a valuable asset providing residents and visitors with many environmental, economic, and social benefits. This project, performed for the City of Santa Monica, evaluated the urban forest as it was in 2020 and how it has changed since 2014. The assessment analyzed urban tree canopy (UTC), non-tree vegetation (shrubs and herbaceous vegetation), impervious surfaces, and how each is spatially distributed throughout the city boundary, land ownership, census blocks, and city zoning designations. The results are based on 2014 and 2020 imagery from the USDA's National Agriculture Imagery Program (NAIP) and provide a comparison of tree canopy coverage across a 6 year timespan. This dataset on the state of the urban forest will allow the City to revise and develop strategies that prioritize the protection and expansion of urban tree canopy as the City changes and plans for its future. The maps and data can help the City to concentrate efforts in areas where current needs are greatest, tree planting space is available, and in areas where tree canopy benefits need to be shared equitably amongst residents.

Assessment Boundaries	UTC % in 2020	UTC % Change 2014-2020	UTC Acres Change 2014-2020
Santa Monica Neighborhoods			
Friends of Sunset Park	13%	-0.8%	-9.6
Santa Monica Mid-City Neighbors	8%	0.3%	1.8
Northeast Neighbors Association	16%	-1.2%	-3.6
North of Montana Association	22%	-1.7%	-17.4
Ocean Park Association	10%	-0.2%	-1.2
Pico Neighborhood Association	8%	0.4%	5.0
Wilshire/Montana Neighborhood Coalition	10%	-0.1%	-0.5
City of Santa Monica, CA	12%	-0.4%	-26.7

13%

URBAN TREE CANOPY

11%

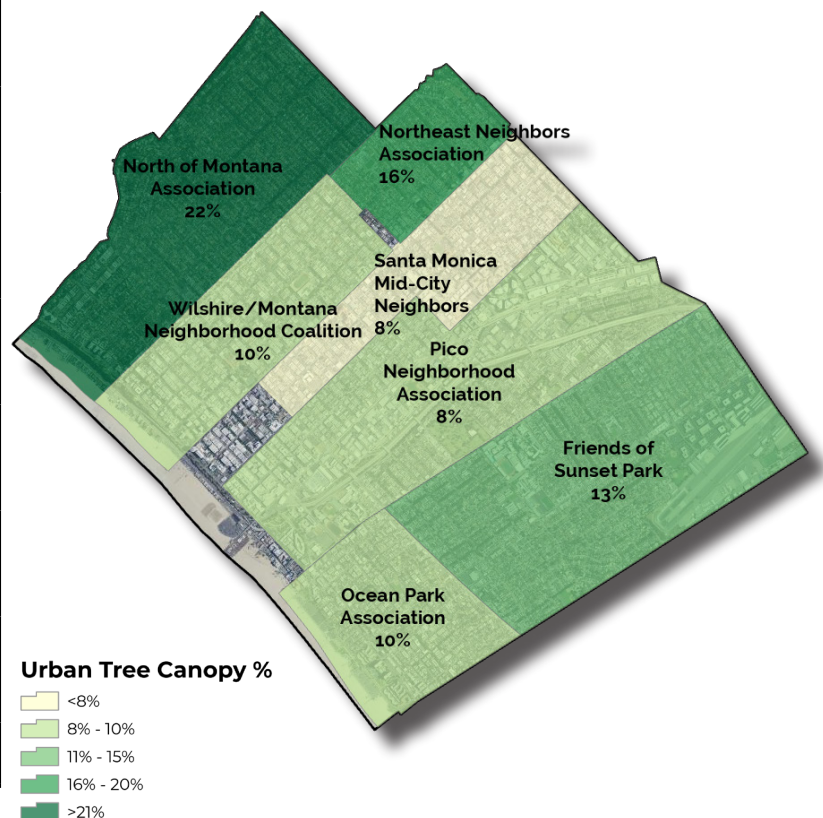
NON-TREE VEGETATION

75%

IMPERVIOUS AREAS

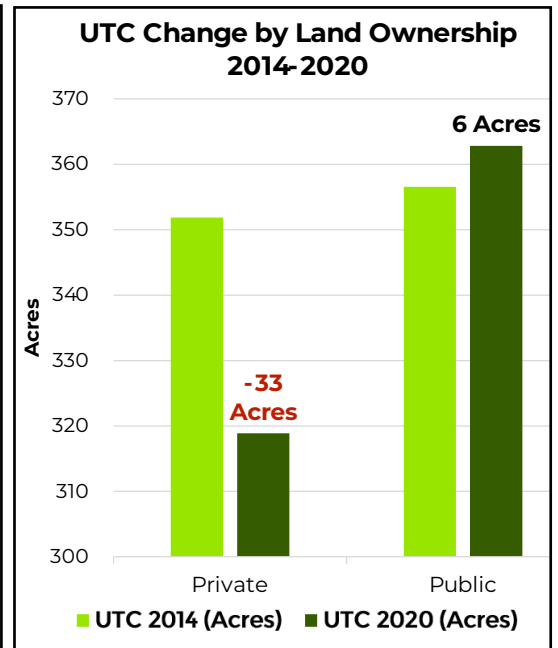
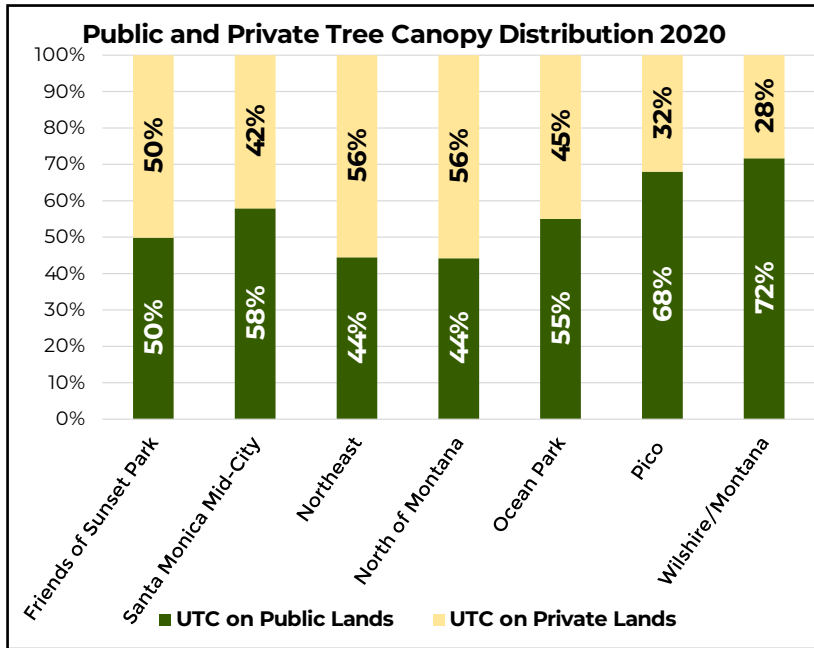
5%

SOIL/DRY VEGETATION



Trees are the only type of infrastructure that, with proper care, appreciates in value over time. To fully capture the changes to Santa Monica's urban tree canopy and the benefits that those trees provide, this assessment compared urban tree canopy in 2014 and 2020. In 2020, tree canopy constituted **13%** of Citywide land cover; non-canopy vegetation was **11%**; soil/dry vegetation was **5%**; impervious was **75%** and water was **<1%**. Of Santa Monica's **684** acres of tree canopy **25%** (or 170 acres) was overhanging impervious surfaces. Trees intercepting rainfall and shading impervious surfaces provide an important service to the city. Santa Monica's canopy and canopy change since 2014 was assessed. Results showed a tree canopy loss of less than **1%** citywide this amounted to a loss totaling **26** acres citywide.

URBAN TREE CANOPY CHANGE IN SANTA MONICA 2014-2020



Next, tree canopy data were analyzed for several geographies, including neighborhoods and public and private land ownership, to determine the distribution of existing and potential urban tree canopy and UTC change throughout the City. Areas managed by the City of Santa Monica had both the highest starting and ending UTC %, with 16% in 2014 and 16% in 2020. As a whole, public areas had an increase in tree canopy of 6 acres. In private lands results showed a tree canopy loss of 1% this amounted to a loss of 33 acres of tree canopy between 2014 and 2020.

UTC change was also analyzed within each of Santa Monica's 6 neighborhood groups. Most of Santa Monica's neighborhoods saw relatively little change with less than 1% increase or decrease in tree canopy coverage between 2014 and 2020. Results showed that the Northeast Neighbors Association and North of Montana Association both lost over 1% tree canopy.

Assessment Boundaries	UTC % in 2020	UTC % Change 2014-2020	UTC Acres Change 2014-2020
Santa Monica Zoning			
Commercial/Industrial/Institutional	6%	0.3%	3
Open Space	10%	1.6%	7
Residential - Multi Family	7%	0.6%	1
Residential - Single Family	13%	-1.7%	-36
Transportation	3%	0.9%	1
Zoning Total	10%	-0.6%	-25

