



Sunnyvale Urban Forest Advocates

sunnyvaletrees.org



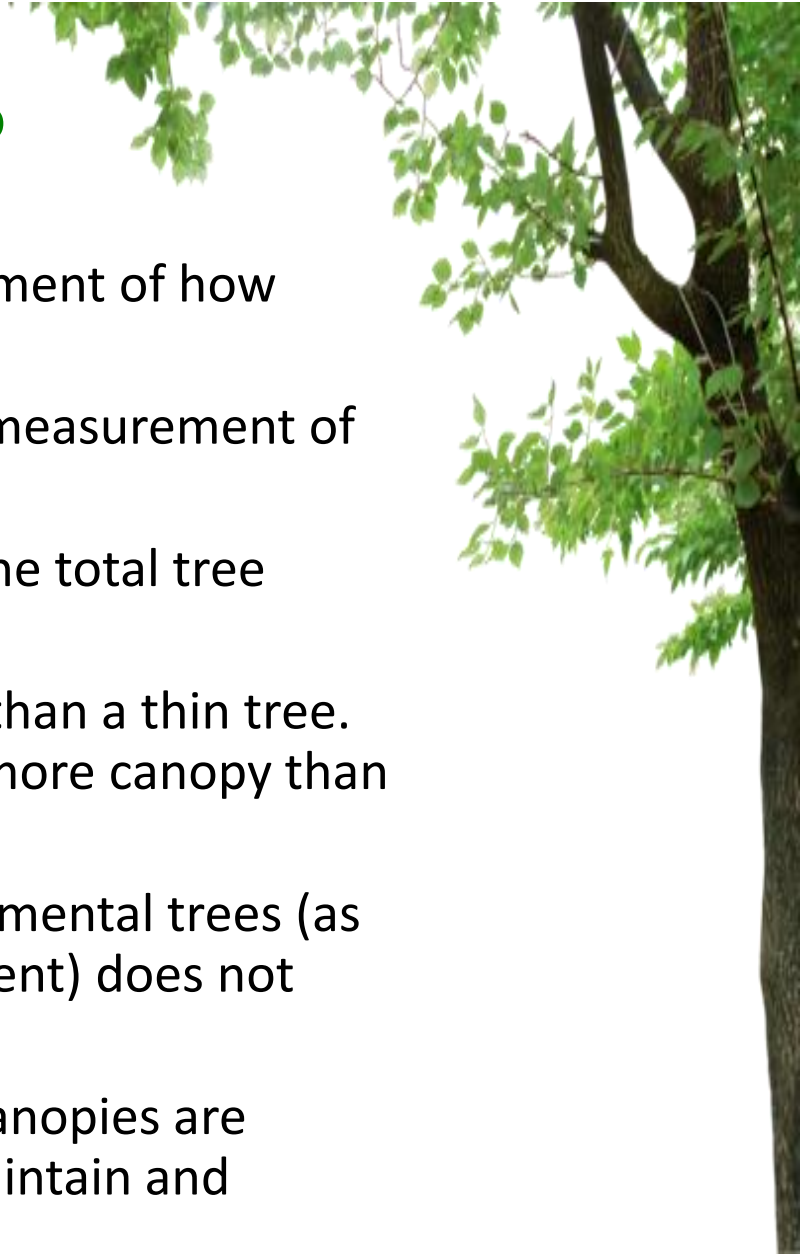
What is an Urban Forest?

- The urban forest is made up of all of the trees within a city – on both public and private land.
- A major indicator of a thriving urban forest is the percentage of healthy tree canopy.



What is the Tree Canopy?

- The tree canopy is an aerial measurement of how much land area is covered by trees.
- The total tree canopy of an area is a measurement of all the trees in that area.
- Every tree in the city contributes to the total tree canopy.
- Large, wide trees have more canopy than a thin tree. For example, one large oak tree has more canopy than several birch trees.
- Replacing 10 large trees with 10 ornamental trees (as often happens during new development) does not preserve the tree canopy.
- It is important that trees with large canopies are planted and preserved in order to maintain and increase the overall tree canopy.



Street with Low Canopy Coverage



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Image capture: Jan 2020 ©2021 Google

East Arbor Avenue

Street with High Canopy Coverage



Imagery ©2021 Google, Imagery ©2021 CNES/Airbus, Maxar Technologies, Planet.com, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2021 Google Brahms Way



Image capture: Aug 2019 ©2021 Google

Brahms Way



Sunnyvale Tree Canopy

- Sunnyvale's tree canopy was 18% when last surveyed in 2014.
- To increase that to the city's goal of 20%, Sunnyvale needs 29,000 new trees.
- 15,000 of those new trees must be planted on private property.
- It is critical the existing trees be preserved and new trees planted.
- Every tree planted adds to the tree canopy.
- Every tree that is removed reduces the tree canopy.



SUFA Mission

Mission

Sunnyvale Urban Forest Advocates (SUFA) increases, sustains, and enhances the urban forest of Sunnyvale through education, advocacy, and participation.

Educate. Advocate. Participate.



SUFA Accomplishments

Educate:

- Hold several tree walks each year to introduce the public to the trees in their neighborhoods
- Provide speakers to Neighborhood Associations
- Participate in community outreach events (Arbor Day, Earth Day, State of the City)
- Distribute quarterly SUFA newsletter



SUFA Accomplishments

Advocate:

- Communicate regularly with city council and staff about tree preservation
- Participated actively in the development and adoption of the Sunnyvale Urban Forest Management Plan, which was approved unanimously by the city council in September 2014
- Ensured the protection of numerous trees throughout the city, including the designation of several oak trees as heritage resources



SUFA Accomplishments

Participate:

- Collaborate with city staff, developers, and other urban forestry organizations
- Support city with outreach and tree plantings
- Helped develop the Branch Out Sunnyvale program to encourage and subsidize the planting of trees on private property
- Organized several community tree plantings, resulting in over 100 new trees

Urban Benefits of Trees

- **Provide Aesthetically Pleasing Environments** – Trees are one of the few elements that can transform barren parking areas and massive vertical walls into more comfortable spaces.
- **Screen Necessary Street Features** – Trees screen utility poles, light poles, and other right-of-way features or at least lessen their obtrusiveness.



Image capture: July 2019 ©2021 Google

E Duane Avenue

- **Calm Traffic** – Trees lead to reduced traffic speeds appropriate to urban conditions.
- **Create Safer Walking Environments** – Delineation of pedestrian areas versus vehicular. Trees can be protective physical barriers.
- **Increase Security** – A more pleasant walking environment encourages more people activity and more foot traffic.

Ecosystem Benefits of Trees

- **Provide O₂ and Sequester CO₂** – Photosynthesis sequesters CO₂ and produces O₂. We are dependent on trees from the day we take our first breath to our last.
- **Lower Urban Air Temperatures** – Concrete and asphalt streets and parking lots are known to raise air temperatures 3-7 degrees. Trees mitigate this heat island effect.
- **Improve Stormwater Management** – Trees absorb the first 30% of most precipitation. Open soil allows for water infiltration.
- **Reduce Harm from Vehicle Emissions** – Trees trap particulates and reduce impacts from exhaust gases. Car exhaust forms ozone more readily over hot streets without tree shade.

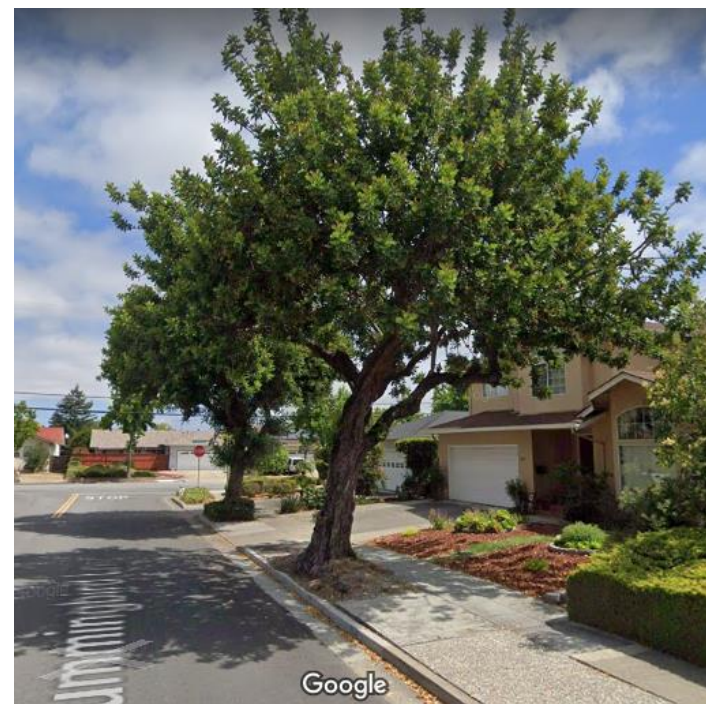
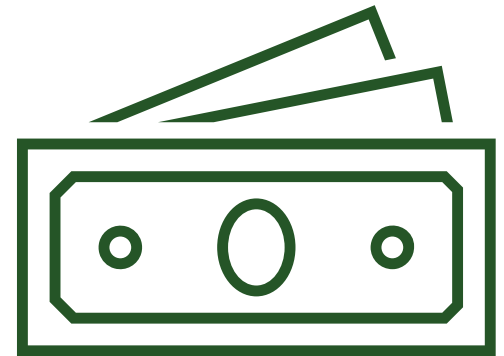


Image capture: July 2019 ©2021 Google

Hummingbird Way

Economic Benefits of Trees

- **Add Value to Adjacent Homes and Businesses** – Research has shown an increase in the sales price of a home with large front yard tree. Business properties also show higher values.
- **Produce Longer Asphalt Pavement Life** – Research has shown longer pavement life in the shade of trees.
- **Improve Business** – Tree-scaped streets show a 20% higher income stream.
- **Reduce Energy Costs** – Shaded homes use less energy for both heating and cooling.



Social and Health Benefits of Trees

- **Improve Health** – Trees in general impact people’s perceptions, lowering blood pressure, improving overall emotional and psychological health.
- **Reduce Travel Time Perception** – Research has demonstrated a mental perception of increased travel time over barren treeless road trips. A pleasant trip appears to go by faster.
- **Help People Connect to Nature** – Street trees help people connect to the living world. No man-made products can give the sense of place as do trees.



Trees Provide A Sense of Place



Among the London Plane Trees on Murphy Avenue

©2021 Google

Where would you rather live?



Image capture: Aug 2019 ©2021 Google

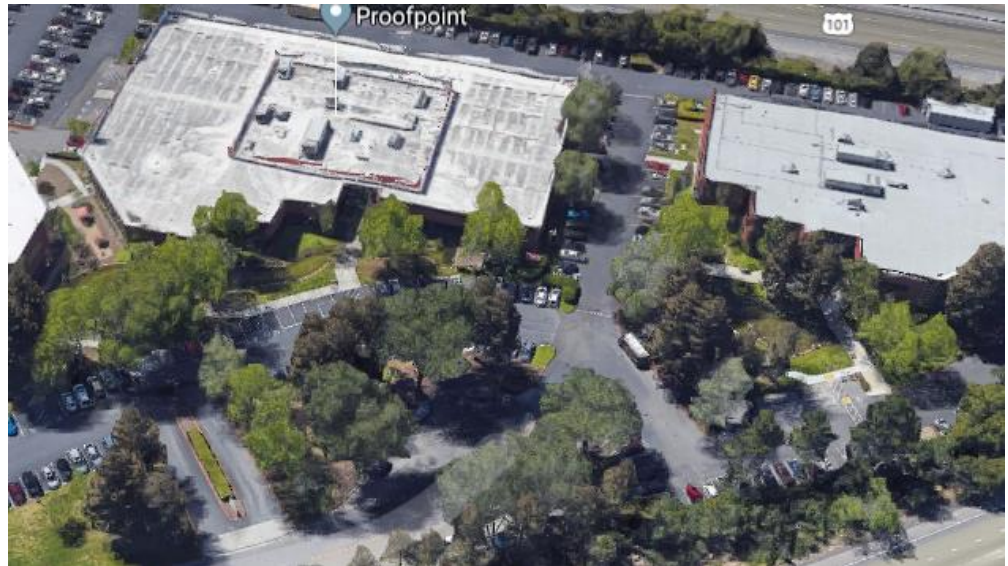
The Dalles Avenue



Image capture: Aug 2019 ©2022 Google

Kennewick Way

Where would you rather work?



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Where would you rather shop?



Image capture: Apr 2019 ©2021 Google

El Camino Real



Image capture: Sep 2017 ©2021 Google

El Camino Real

Native Trees in Sunnyvale



Valley Oak

Quercus lobata



Coast Live Oak

Quercus agrifolia

Native Trees in Sunnyvale



Western Sycamore

Platanus racemosa



California Bay Laurel

Umbellularia californica

Native Trees in Sunnyvale



Coast Redwood
Sequoia sempervirens



Native Trees in Sunnyvale



Hollyleaf Cherry

Prunus ilicifolia



Native Trees in Sunnyvale

Many trees native to the Bay Area and Sunnyvale are not suited for urban areas. Soil, water, temperature, and space requirements may not be met.

- Sycamores grow best near creeks.
- Redwoods grow best on coastal mountains with a lot of moisture.
- Bay trees grow best on hillsides.
- Valley Oaks need a lot of space.

Several native trees do well in Sunnyvale.

- Coast live oaks are adapted to the valley climate.



Non-Native Trees in Sunnyvale

Many trees that are not native do very well in the urban environment. Many tolerate temperature, water, soil, and space constraints.

- Shumard oaks are drought tolerant.
- Canary island pines are drought tolerant.
- London planetree can handle urban pollution and small planting areas.
- Western redbuds can handle clay soil.

Other non-natives do not do as well.

- Magnolia trees require a lot of water.

Non-Native Trees in Sunnyvale



Chinese Elm

Ulmus parvifolia



Camphor

Cinnamomum camphora

Non-Native Sunnyvale Trees



Carob *Ceratonia siliqua*



Southern Magnolia
Magnolia grandiflora

Non-Native Sunnyvale Trees



Strawberry Tree

Arbutus unedo



Cork Oak

Quercus suber

Non-Native Sunnyvale Trees



Ginkgo Biloba

Ginkgo biloba



Western Redbud

Cercis occidentalis

Non-Native Sunnyvale Trees



Crape Myrtle
Lagerstroemia indica



Shumard Oak
Quercus shumardii

Non-Native Trees in Sunnyvale



Liquidambar (American Sweetgum)
Liquidambar styraciflua



Holly Oak *Quercus ilex*

Non-Native Trees in Sunnyvale



London Planetree
(Sycamore hybrid)
Platanus × acerifolia



Chinese Pistache
Pistacia chinensis

Non-Native Trees in Sunnyvale



Canary Island Pine

Pinus canariensis



Japanese Zelkova

Zelkova serrata



Adapting to a New Climate Reality

- Eliminate planting of water loving trees (redwood, magnolia, etc.)
- Increase plantings of Mediterranean and drought-tolerant trees (Shumard oak, western redbud, etc.)
- Plan for the future and plant trees from areas with a climate that will match California's in 30 years or more (assisted migration)
- Focus on large canopy trees (in order to reduce the heat island effect, absorb carbon, etc.)

Tree Selection Considerations

- Location
 - Sunny or shady
 - Space available
- Water Needs
 - Amount
 - Fresh or recycled water
- Soil Type
 - Loose, sand, or clay
- Size
- Evergreen or Deciduous
- Shade Canopy
- Maintenance Requirements
 - Trimming or cleanup
- Aesthetics
 - Structure
 - Flowers
 - Seeds



Best Trees to Plant Now





Tree Selection Resources

- **PG&E – Tree Selection Guide:**
https://www.pge.com/en_US/safety/yard-safety/powerlines-and-trees/right-tree-right-place/right-tree-right-place.page
- **Canopy (Palo Alto Urban Forestry Group) – Tree Selection, tree planting, tree care:**
<http://canopy.org/tree-info/canopy-tree-library/#>
- **Our City Forest (San Jose Urban Forestry Group) – Tree selection, tree planting:**
<http://ourcityforest.org>
- **Arbor Day Foundation – Tree Care Tips:**
<https://www.arborday.org/trees/tips/index.cfm>

Branch Out Sunnyvale



The City of Sunnyvale will subsidize the planting of trees on private property.

Homeowner Responsibilities –

- Contact Our City Forest for consultation - information is available at sunnyvaletrees.org
- Pay \$50
- Care for the tree



Our City Forest of San Jose Responsibilities –

- Meet at your house
- Evaluate site
- Recommend tree
- Plant tree



City of Sunnyvale Responsibilities –

- Pay \$300 to Our City Forest for each tree planted
- Program funding is limited



What Can I Do?



- Contact the city to have a street tree installed and care for it. Encourage your neighbors to get a street tree.
- Consider adding additional trees to your property – front yard, back yard, side yard. Participate in the Branch Out Sunnyvale program.
- Look into planting trees in community areas such as churches and schools.
- Contact local businesses to request trees in their parking lots.
- Speak up for the preservation of existing trees.
- Participate in public meetings where trees are considered, which includes all new development and redevelopment proposals.
- Contact city planners, planning commissioners, and city council with concerns.
- Advocate for an update to municipal codes to require landscaping of existing and new parking lots.
- Join SUFA and/or participate in SUFA events.





Resources

- **Sunnyvale Urban Forest Advocates**

sunnyvaletrees.org

- **Sunnyvale City Council**

sunnyvale.ca.gov/your-government/governance/city-council

- Meeting dates and agendas
- Email contacts

- **Sunnyvale City Trees Department**

sunnyvale.ca.gov/homes-streets-and-property/streets-and-trees/trees

- Request Street Trees
- Report tree issues

- **Branch Out Sunnyvale**

sunnyvaletrees.org/branch-out-sunnyvale



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