

Santa Barbara's Community Guide to Tree Planting





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The Value of a Healthy Urban Forest

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- 🍃 **Aesthetics**– Trees play an important role in adding beauty to an area. They soften the look of buildings and homes, screen unsightly views and add color.
 - 🍃 **Property Values**– Studies conducted by the U.S. Forest Service show trees increase real estate value anywhere from 1-10% depending on type and size.
 - 🍃 **Energy Savings**– Trees reduce energy consumption by direct and indirect cooling. Shade reduces the amount of heat surfaces absorb and reduces the use of air-conditioning. The U.S. Forest Service estimates the annual effect of well-positioned trees on energy use in conventional houses at savings between 20-25% when compared to a house in a wide-open area.
 - 🍃 **Air Quality**– Leaves filter the air by removing dust and other particulates. They absorb carbon dioxide, ozone, carbon monoxide, and sulfur dioxide, and give off oxygen. In fact, tree lined streets reduce up to 60% of street particulates.
 - 🍃 **Water Quality**– Trees capture rainwater and remove impurities, reduce volume into storm drain systems and peak creek flows, which decreases stormwater runoff and reduces creek and ocean pollution.
 - 🍃 **Quality of Life**– Trees attribute to overall increased health, increased work productivity, and reduced aggressive driving (U.S. Forest Service). They protect natural resources by providing clean air, scenic views, and cultural and historical background.
 - 🍃 **Wildlife Habitat**– Urban trees offer habitat to birds, insects, mammals, fish, and amphibian species. They play an important role as stopover sites for migrating birds and insects, act as corridors for mammals and help regulate creek temperatures for fish.

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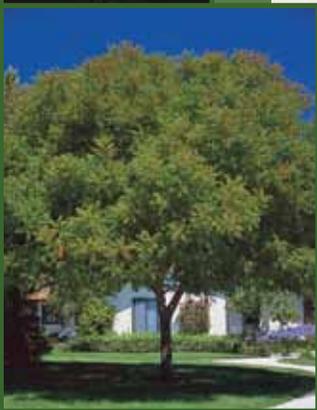
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Chinese Pistache



Introduction

The purpose of this guide is to provide Santa Barbara residents with information on planning, planting and caring for trees and the role trees play in conserving resources and beautifying the community. This guide also provides an overview of the City of Santa Barbara’s urban forest program and outlines the City’s tree regulations.

The urban forest is comprised of all the trees in the city – both public and private. Public trees include trees in parks and public facilities and in the parkways along city streets. The City has an estimated 50,000 park and street trees that are managed by the Parks and Recreation Department’s Forestry Program. Of these trees, there are 456 different species - an exceptionally large variety.

Publicly owned trees make up only a small percentage of the total urban forest. All other trees are on privately owned land including hillsides, backyards, gardens and parking lots, among others. Although no inventory has been conducted for privately owned trees, the City estimates there are 5 private trees for every 1 publicly owned tree for an estimated total of 250,000 trees in the urban forest.

Whether they are managed as public resources or privately owned, trees provide a host of benefits. In addition to beautifying neighborhoods and the city, trees provide habitat for wildlife, reduce air pollution, conserve water and energy, and reduce water pollution.

Trees also contribute to Santa Barbara’s cultural history. Since the 1800’s conservators and horticulturists have adorned Santa Barbara’s landscape with a variety of trees, shrubs and plants. Plantsmen like Joseph Sexton, Francesco Franceschi, A. Boyd Doremus, and E.O. Orpet contributed to a legacy of illustrious parks and tree lined streets we appreciate and enjoy today. Maintaining this legacy is to preserve the cultural and historical record of each tree, as well as to act as a conservatory for the display of exotic, rare and even endangered species. Today, the City’s management of the public urban forest, as well as its tree protection policies, are also guided by sustainability, safety and resource conservation.

Hong Kong Orchid Tree





Crepe Myrtle



Planning, Planting, and Caring for Your Tree

Planting a tree is an investment in time and money and should therefore be a well thought out decision. Not all trees are appropriate for all settings. Following the steps in this guide will help you to successfully plan, plant and care for your new tree and enjoy the benefits it has to offer for 30 years or more.

Planning

To successfully grow trees, take a careful look at your property. Proper placement of trees is critical for your enjoyment and their long-term survival.

To help you plan, consider the following questions:

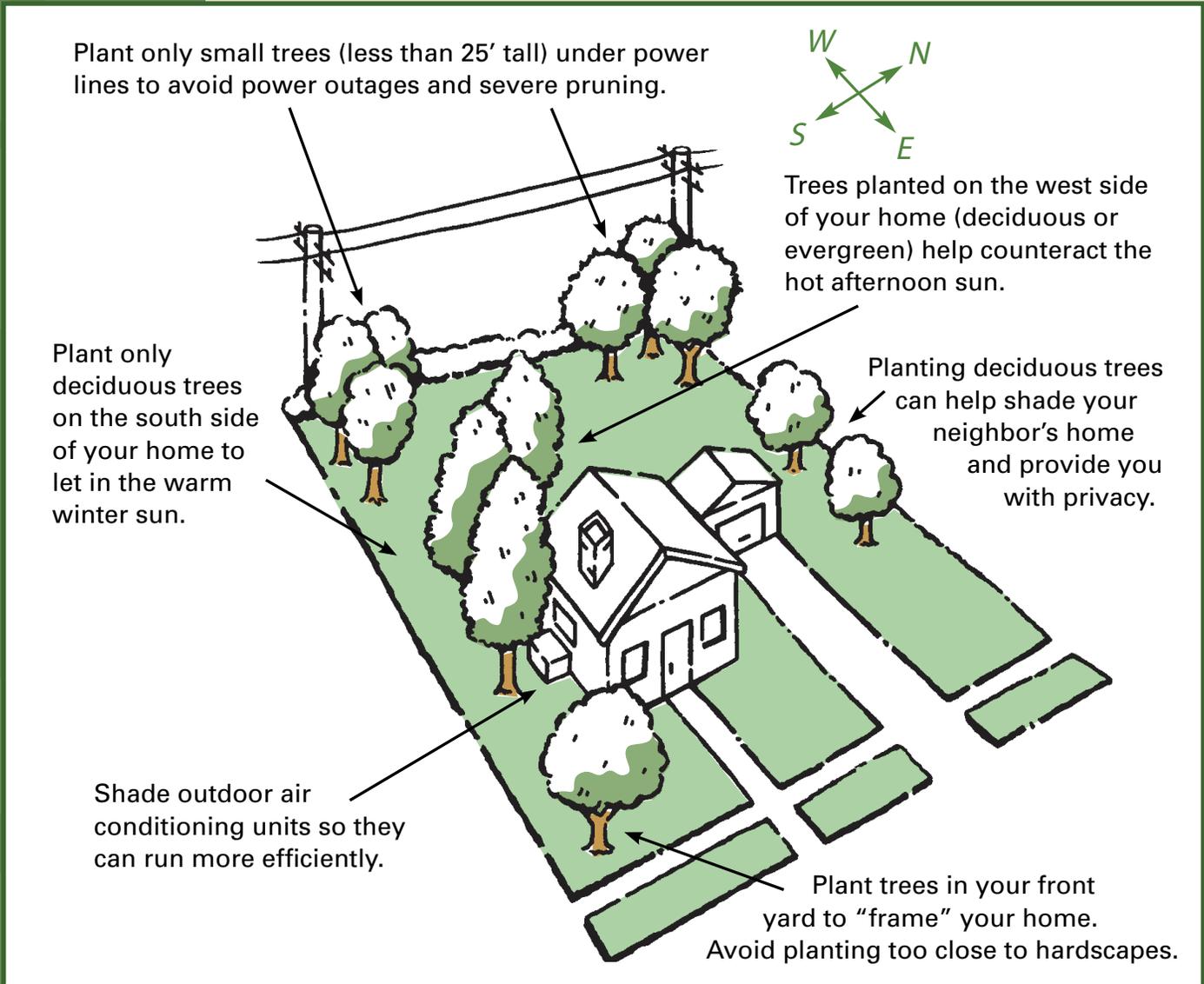
1. How tall will the tree be in 5, 10, and 30 years? Is there ample room for proper development of the branches and leaves?
2. Are there any overhead utility lines?
3. Are there any underground utility lines or other structures in the root zone of the planting area?
4. How close will the base of the tree be to the house foundation and to surface structures such as walkways, driveways, patios, curbs, etc.?
5. Will leaves, flowers, or fruit drop be acceptable around the planting site?
6. How will the tree be watered?

Deodar Cedar



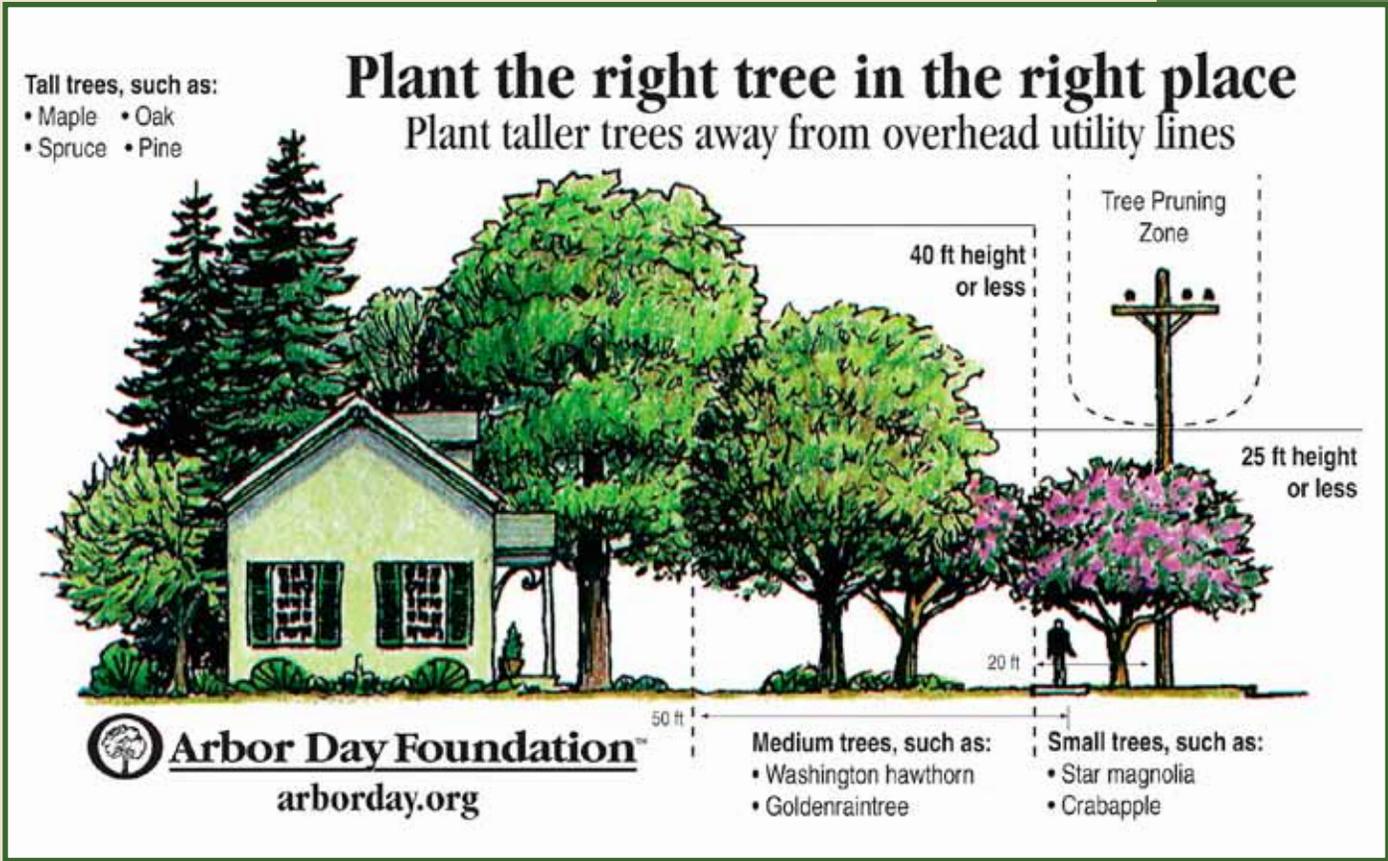
Strategically Planting Trees

Follow these guidelines to maximize the benefits of the trees you plant:



Coast Live Oak





*Trees listed in the Arbor Day Foundation graphic are common to the State of Washington and are not necessarily examples found in Santa Barbara. Refer to pages 18 and 19 for tree species and sizes common to this area.

Planting the Right Tree in the Right Place

Overhead Lines/Equipment

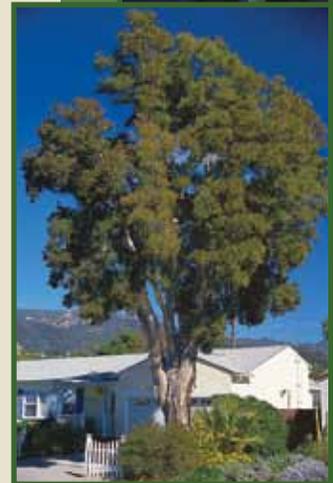
In general, do not plant trees that will grow greater than 25 feet tall under utility lines. Please refer to the list of "Small Trees" in the table on page 18 for species that you can safely plant under overhead utility lines.

Underground Lines/Equipment

Before digging, make sure there are no utility lines underground. Underground Service Alert of Southern California, known as DigAlert, will mark underground lines for free. Call 800-227-2600 to learn more about this service.



Cajeput Tree



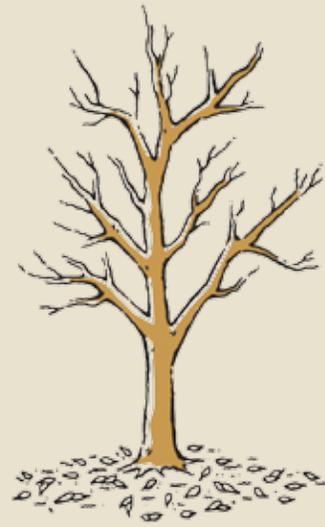
Tree Selection

After you have analyzed your property and identified the best places to plant trees, you need to consider what type(s) of trees to plant. It is important to not only select trees that meet your needs for shade and space, but also to choose those that will prosper in the site's soil and climate conditions. Answer the following questions to help guide your tree selection process:

1. What trees do you prefer?

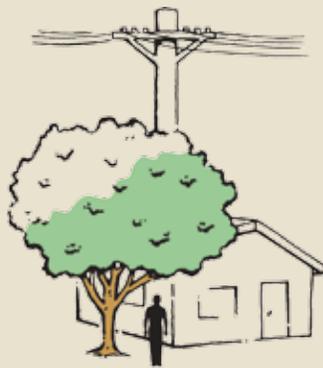


Evergreen



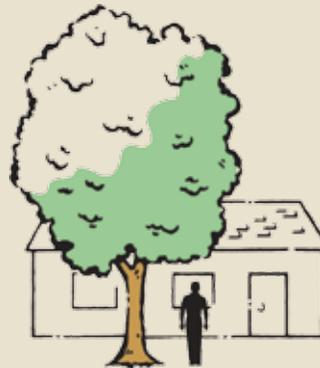
Deciduous

2. What tree height will work best for your planting location?



Small:

Grow up to 25 feet tall.



Medium:

Grow 25 to 40 feet tall.



Large:

Grow (in most cases) larger than 40 feet tall.

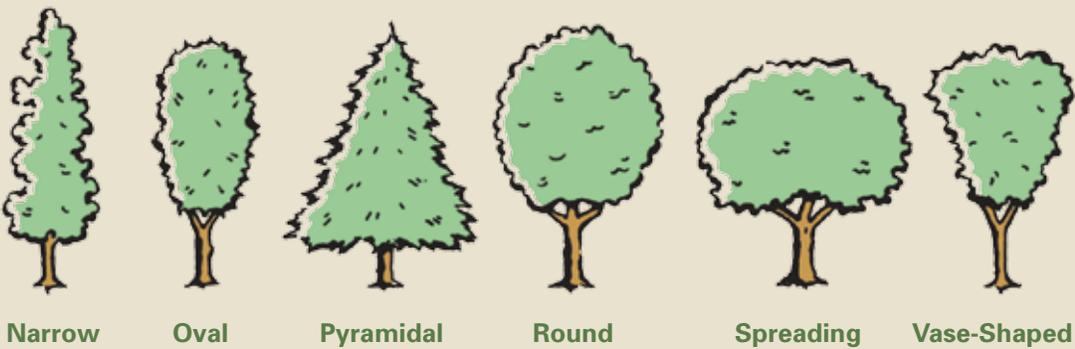
Chinese Fringe Tree



3. What aesthetic qualities do you want from your trees?

- ✓ Flowers
- ✓ Fall color
- ✓ Fine foliage
- ✓ Dramatic form
- ✓ Leaf color

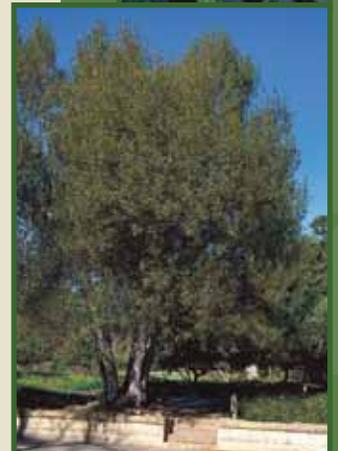
4. What type of tree shape appeals to you?



5. What type of leaves do you prefer?



Sweet Bay Tree



6. In what kind of soil will the trees be planted?

7. How well does the soil drain?

8. Do you, or others who live in your home, have any allergies to pollen that might be affected by the types of trees you plant?

**(For information regarding trees that are allergenic visit:
<http://forestry.about.com/od/difficultissues/a/treeallergy.htm>.)**

After you have answered these questions, refer to pages 18 and 19 to find trees that fit your criteria, and are appropriate for your planting area. This list includes trees that grow well in Santa Barbara and is intended as general guidance. Consult with a tree care professional if you would like information about other species. Additional resources are also found on page 22 of this booklet.

Ginkgo

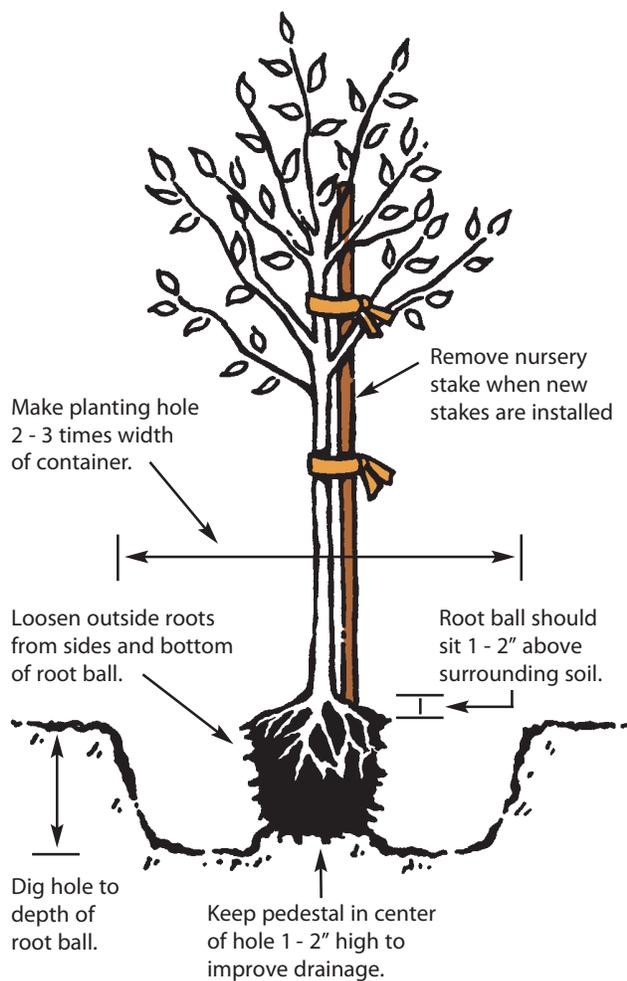


Planting

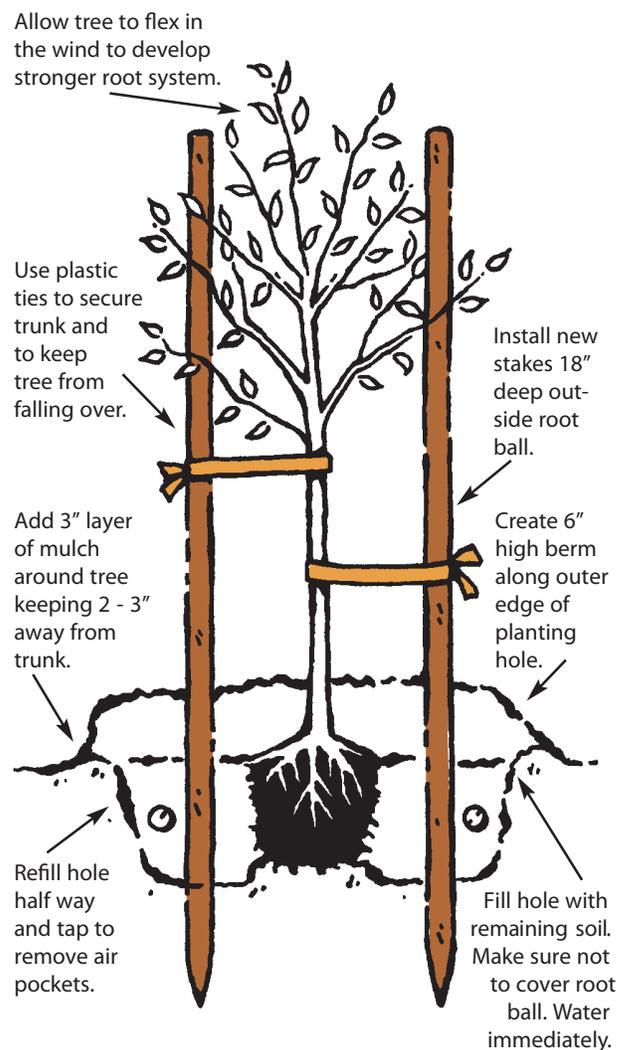
A properly planted tree will grow twice as fast and live twice as long as one improperly planted.

When you're ready to plant your new tree, follow the steps shown on the diagram:

Creating the Planting Hole



Planting and Staking Your Tree



Caring For Your Tree

With early care and special attention, a young tree will develop its unique character and grow 30 to 60 percent faster during the first five growing seasons. The cost of caring for young trees is minimal. In fact, proper planting, watering, mulching, and pruning techniques are about the only requirements for trees to grow to maturity.

Watering

For the first year, trees need regular watering to establish their roots. Check the soil frequently by inspecting it at a depth of 2 to 3 inches around the root ball before watering. If the soil won't form a ball or crumbles when you press it together between your fingers, the tree needs water.

Follow this general rule of thumb:

- ✓ **The 1st month:** Deep water twice a week inside the watering basin.
- ✓ **The 2nd and 3rd months:** Deep water weekly.
- ✓ **The 4th through 8th months:** Deep water every other week.
- ✓ **The 9th through 12th months:** Deep water every three to four weeks, or every two weeks during hot summer months.
- ✓ **The 2nd and 3rd years:** Deep water every four to six weeks during the year, with perhaps more frequent waterings during the summer, depending on the type of tree and soil conditions. Continue to check the soil moisture level if you're not certain whether the tree needs water.

For information on deep watering and watering requirements for mature trees, refer to the guidelines on page 18 and 19.

Weeding

Remove weeds, grass and other plant life by pulling them by hand, or through the use of composted mulch. Avoid the use of weed killers and herbicides.

Staking

Stake a tree only if it cannot support itself. The sooner stakes and ties are removed, the stronger the tree will become. Multi-trunk trees, or those with several main trunks joined at the base, do not need stakes.

Gold Medallion Tree



Fertilizing

It is not necessary to fertilize trees, even upon planting, unless there is a known nutrient deficiency.

Mulching

Place a layer of mulch 2-3 inches deep around the tree but not touching the tree. Mulch performs many different functions:

- ✓ Retains moisture
- ✓ Moderates soil temperature
- ✓ Keeps out weeds
- ✓ Prevents soil compaction
- ✓ Reduces lawn mower and string trimmer damage
- ✓ Adds an aesthetic touch

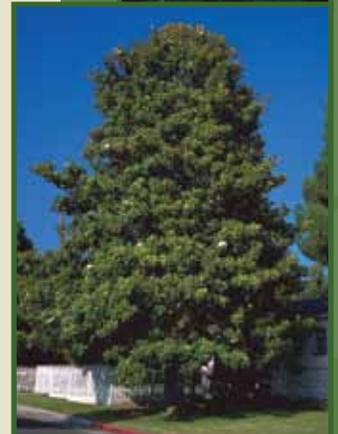
Pruning

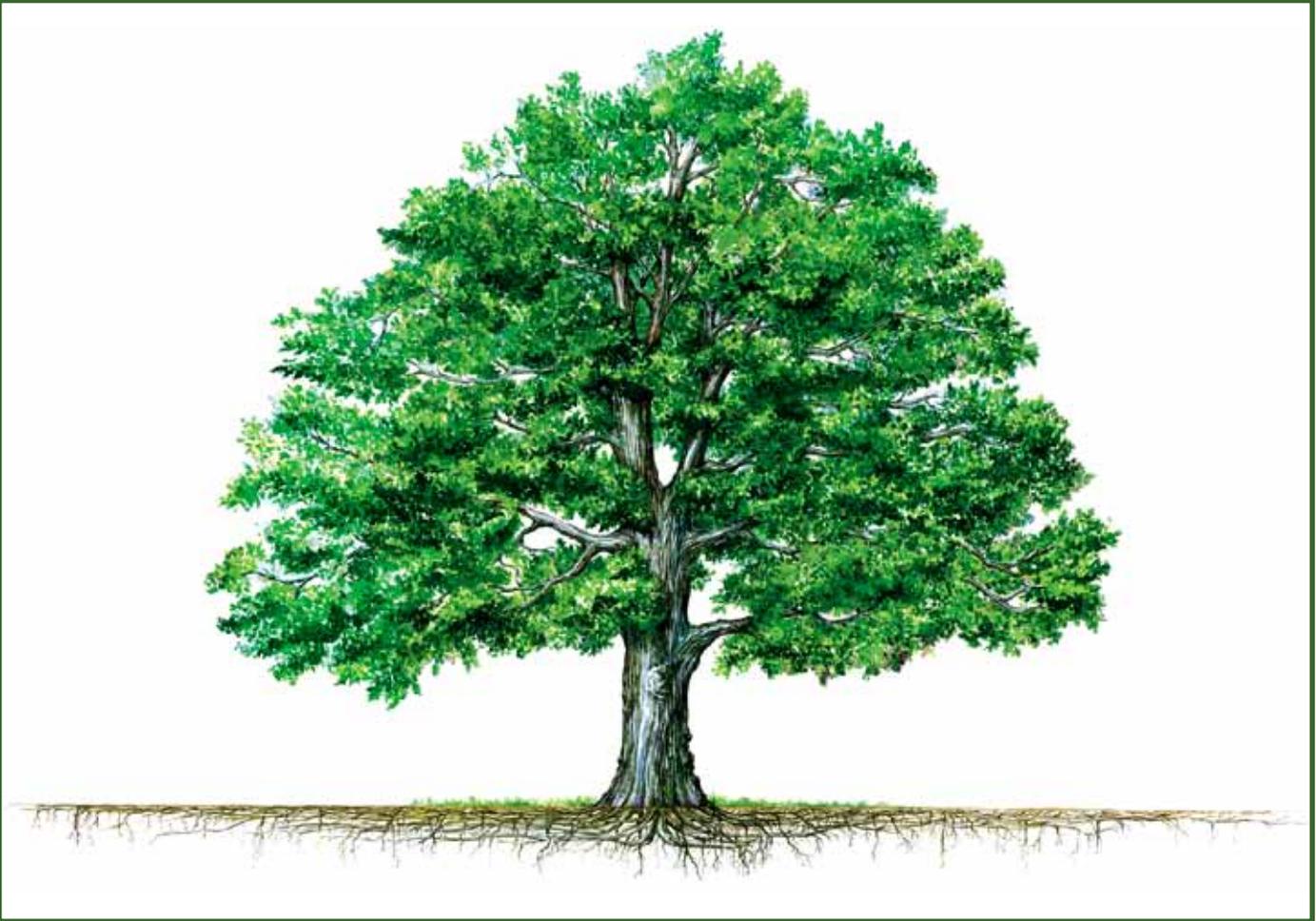
Pruning helps a tree develop proper structure, controls its size, directs its growth and maintains its health, safety and beauty. Prune trees to remove dead, damaged, diseased, crossing, and rubbing branches. For personal safety and to ensure proper pruning techniques are executed, consider hiring a certified arborist for trees more than 12 feet tall. Visit the International Society of Arboriculture's website (www.isa-arbor.org) for a listing of certified arborists in your area. If you would like to learn more about how to prune trees, visit the U.S. Forest Service website: www.na.fs.fed.us/spfo/pubs/howtos/ht_prune/prune001.htm.

Protecting the Trunk

To protect the trunk of your young tree, avoid using lawn equipment near the trunk of the tree, and place mulch around the tree.

**Southern
Magnolia**





Where Roots Really Grow

Understanding how and where roots grow will help you avoid damage from trenching and construction.

Here are some facts to remember:

- ✓ Because roots need oxygen, they don't normally grow in the compacted oxygen-poor soil under paved streets.
- ✓ Roots often grow outward to one to two times the height of the tree.
- ✓ Eighty-five percent of a tree's roots are located within eight to 24 inches of the surface.

Silk Tree



Long-Term Tree Health

With proper care, your trees should live a long, healthy life. However, it's important to keep an eye out for signs of damage or disease. If you notice any of the following problems, check with a certified arborist or other tree care professional for the most appropriate steps to take:

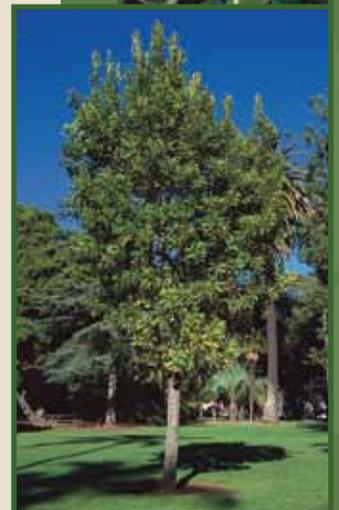
- ✓ Large dying or dead branches
- ✓ Reduced growth
- ✓ Rot (including fruiting bodies of fungi, such as mushrooms) in the tree roots or base
- ✓ Large, deep, vertical cracks on the opposite sides of the trunk
- ✓ Clustered, or non-spreading, leaves at the end of branches
- ✓ Yellowing leaves or excessive leaf drop out of season
- ✓ Signs of insect infestation

Additionally:

- ✓ Do not nail things to trees.
- ✓ Do not place heavy materials and equipment under tree.
- ✓ Do not wrap wire, twine or other materials around the trunk or branches of a tree.

Maintaining the right soil conditions, and keeping your tree properly watered and mulched, are the best ways to prevent your tree from becoming weakened or wounded, and more susceptible to health problems.

Firewheel Tree



Examples of Trees That Grow Well in Santa Barbara

SMALL TREES (15-25 feet)

NAME	TYPE	HEIGHT	SPREAD	GROWTH RATE
Hong Kong Orchid Tree ¹	Semi	20	20	Moderate
Gold Medallion Tree ²	Semi	25	25	Fast
Chinese Fringe Tree	Evergreen	20	20	Slow
Chitalpa	Deciduous	25	25	Fast
Crepe Myrtle ^{3,4}	Deciduous	25	15	Moderate
Firewheel Tree	Evergreen	25	20	Slow

MEDIUM TREES (25-45 feet)

NAME	TYPE	HEIGHT	SPREAD	GROWTH RATE
Silk Tree ²	Deciduous	40	40	Fast
Cape Chestnut ¹	Semi	30	30	Slow
Ginkgo ⁴	Deciduous	35	25	Slow
Sweet Bay Tree ⁵	Evergreen	40	35	Slow
Brisbane Box Tree	Evergreen	45	30	Moderate
Chinese Pistache ⁴	Deciduous	35	35	Moderate

LARGE TREES (45+ feet)

NAME	TYPE	HEIGHT	SPREAD	GROWTH RATE
Camphor Tree ⁵	Evergreen	50	50+	Slow
Deodar Cedar ²	Evergreen	80	60	Fast
Southern Magnolia ²	Evergreen	70	50	Fast
Cajeput Tree	Evergreen	50	40	Moderate
California Sycamore ²	Deciduous	60	40	Fast
Coast Live Oak	Evergreen	60	70	Moderate

Comments

- 1 Tree can look a little awkward at times during the year
- 2 Fast growing trees require higher levels of maintenance
- 3 Use only Mildew resistant varieties
- 4 Provides a brilliant display of Fall colors
- 5 Aromatic foliage

WATER USE⁶	FLOWERING	LOCATION
Moderate	Purple	200 blk E Padre
Moderate	Yellow	1400 blk Carpinteria
Low	White	2000 blk Chino
Low	Pink	925 State
Moderate	Various colors	300 blk San Roque
Moderate	Red	700 blk Casiano Dr

WATER USE⁶	FLOWERING	LOCATION
Moderate	Pink	N. Voluntario
Moderate	Light Pink	Portofino Way
Moderate	Inconspicuous	W Alameda Park along Santa Barbara St
Low	Inconspicuous	Alice Keck Park along Micheltorena
Moderate	Inconspicuous	1400 blk Anacapa Street
Moderate	Inconspicuous	400 - 500 blk Alan Rd

WATER USE⁶	FLOWERING	LOCATION
Moderate	Inconspicuous	1400 blk Laguna
Low	Inconspicuous	Canon Drive
Moderate	White	San Andres
Moderate	White	500 blk Castillo by DMV
Low	Inconspicuous	1001 E Montecito at the corner of Alisos
Low	Inconspicuous	Oak Park

⁶ Trees require supplemental water throughout their life. After trees are established they need water in differing amounts. Moderate water use trees require supplemental water once every 3 months. Low water use trees require supplemental water once every 6 months. These amounts are based on annual averages and should be adjusted in wetter and dryer years. While deep watering depends on soil type, a general guideline is to turn the water on to a very slow flow and allow it to run until it no longer penetrates the soil.

Forestry Program Overview

A Public Resource

The mission of the Forestry Program is to plant and maintain City street, park and public facility trees for the benefit of residents, and to ensure a safe and healthy community forest. Policies set forth in the Street Tree Master Plan (1977) and Municipal Code Chapters 15.20 and 15.24 guide City forestry staff and the public in carrying out this mission. Additional guidance comes from the public review process related to tree planting, maintenance, and preservation. This is provided by the Street Tree Advisory Committee, Parks and Recreation Commission, Historic Landmark Commission, Architectural Board of Review, and the City Council.

Coordination of community planting projects is also an integral part of managing the urban forest. Forestry staff work together with the Arbor Day Foundation, Santa Barbara Beautiful, schools, community groups and residents to successfully plant hundreds of trees each year. As a result, Santa Barbara has earned the designation of "Tree City U.S.A." every year since 1980.

Tree Maintenance Policy

The City's Forestry Program understands that a strong commitment to the maintenance of each tree within the urban forest is critical to the long-term success of the forest. The remainder of this section describes the Forestry Program management and regulation of trees.

Street Tree Planting: The City has a designated tree species for planting along all "improved" city streets (meaning streets with concrete curbs along the edge of the road). To have the designated tree species planted, contact the Forestry Program office, a service request is made, and the request will be placed on a list for future planting. A permit can also be issued for you to have a City specified tree planted.

Property owners are responsible to maintain all other vegetation within parkways. City policy limits the height of the vegetation to 8 inches unless a permit is issued. To initiate the planting process, please contact the Parks and Recreation Department at 564-5433.

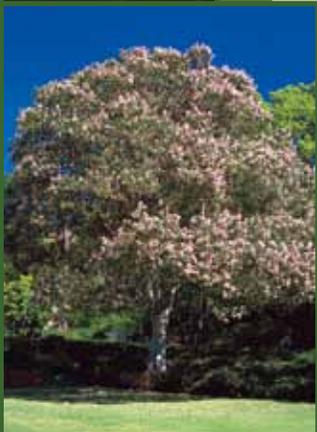
Young Tree Care Program: Young trees are cared for more intensely during the first three years after planting. Young trees are watered, staked, and pruned to develop a strong structure and canopy clear of pedestrian and vehicle traffic.

Pruning: The City is on a five to seven-year pruning cycle for street trees and eight to ten-year cycle for park trees. Forestry staff also prune trees with specific problems on an as needed basis. All pruning is based on International Society of Arboriculture Pruning Standards. Each tree is catalogued and all tree care work is documented in a database.

The City does not have jurisdiction over Southern California Edison's (SCE) line clearing practices. SCE will prune trees to ensure that tree branches do not interfere with electric power lines.

Street Tree Removal: Trees are removed when they are dead, dying or structurally unsound. Every tree removal is evaluated case-by-case, based upon a standard list of criteria. Each tree considered for removal is posted with the Forestry Program contact information in case there are questions. If there is an immediate concern for safety to the public, the tree is removed

Cape Chestnut



Tree Preservation Policy

Trees growing in the parkways (the space between the curb and sidewalk), center medians, along steps and walkways, and in City Parks are public trees. It is unlawful for anyone to plant, prune or remove any tree within these areas without a permit issued by the City. Private trees are all trees on private property, but are under the jurisdiction of the City if the tree is:

- ✓ a City designated 'historic' or 'specimen' tree; or
- ✓ located within the minimum front yard setback area of a property; or
- ✓ identified on a required landscape plan that is a component of a development application approved by the Planning Commission, Architectural Board of Review, or Historic Landmarks Commission.

If you have questions about whether your tree is protected, contact the city's Arborist at 564-5433.

The following Santa Barbara Municipal Code ordinances address public and private trees. The full text can be found on the City of Santa Barbara's web site at: http://www.santabarbaraca.gov/Resident/Community/Parks_and_Beaches/Street_Trees.htm

MC 15.20 "Tree Planting and Maintenance"

This code is referred to as the "Tree Ordinance of the City of Santa Barbara" and addresses City-owned trees in parks and parkways (street trees).

MC 15.24 "Preservation of Trees"

This ordinance regulates tree removal and the degree of pruning allowed for privately-owned trees, located in the regulated front set back of a residential or commercial property, regulated parking lots, trees identified on an approved landscape plan, and Historic and Specimen trees.

To request the removal of a tree that is within the City's jurisdiction, submit a tree removal application with the application fee. Tree applications can be found on the City's website. Anyone who significantly alters or removes a City-owned tree without the proper permits can be penalized according to the fine schedule below.

Action without or in violation of permit	Trunk diameter from 4" to 12"	Trunk diameter from 12" to 24"	Trunk diameter over 24"
Significant Alteration	Up to \$500	Up to \$1,000	Up to \$1,000
Removal	Up to \$1,000	Up to \$3,000	Up to \$5,000

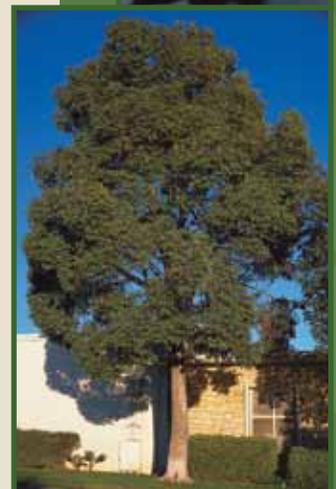
Trees in High Fire Zones

Trees and other vegetation planted in areas zoned as high fire hazard must be maintained according to the Santa Barbara Fire Departments High Fire Hazard Landscape Guidelines. For information on these guidelines and fire resistant plants, call 965-9254 or go to:

www.santabarbaraca.gov/Government/Departments/Fire/WildlandInterface.htm.

For Tree Care Assistance and Information call the City's Arborist at 564-5433 or go to www.santabarbaraca.gov/Resident/Community/Parks_and_Beaches/

Brisbane Box Tree



Additional Resources

Publications

California Native Plants for the Garden by Carol Bornstein, David Fross and Bart O'Brien. Cachuma Press, 1999.

Los Angeles Department of Water and Power Home Tree Guide by Los Angeles Department of Water and Power, 2005. <http://www.ladwp.com/ladwp/cms/ladwp000744.jsp>

Native Shrubs of Southern California by Peter H. Raven. University of California Press, Berkeley, 1966.

Santa Barbara's Street and Park Trees by Will Beittel. The Santa Barbara County Horticultural Society, 1972.

Trees of Santa Barbara by Robert N. Muller and J. Robert Haller. Santa Barbara Botanic Garden, 2005.

Trees and Shrubs of California by John D. Stuart and John O. Sawyer. University of California Press, Berkeley and Los Angeles, 2001.

Web Resources

Human Dimensions of Urban Forestry and Urban Greening:
<http://www.naturewithin.info/>.

SB Water.org: <http://sbwater.org/yourlandscape.htm>.

Southern California Edison, Right Tree Right Place:
<http://www.sce.com/safety/treesandpower/planting>.

Tree Help.com How to Guide: <http://www.tree-planting.com/index.html>.

Tree Trust- Community Tree Planting:
<http://www.na.fs.fed.us/Spfo/Pubs/uf/treeguidehtm/toc.htm>.

University of California Cooperative Extension Master Gardeners:
http://groups.ucanr.org/cagardenweb/Landscape_Trees/.

US Department of Agriculture Natural Resource Conservation Service Tree Planting Guide: <http://www.nrcs.usda.gov/feature/backyard/TreePtg.html>.

City Resources

City of Santa Barbara Forestry Program:
http://www.santabarbaraca.gov/Resident/Community/Parks_and_Beaches/index.htm

Frequently Asked Questions

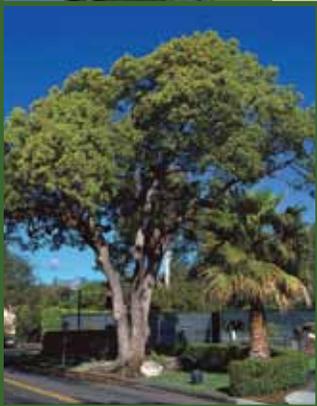
Trees and Views

Permit Applications

Santa Barbara Fire Safety:
<http://www.santabarbaraca.gov/Government/Departments/Fire/index.htm>.

Santa Barbara Water Resources Division:
<http://www.santabarbaraca.gov/Resident/Water/>.

Camphor Tree





**City of Santa Barbara Parks and Recreation Department
Parks and Forestry Division
402 East Ortega Street, Santa Barbara, CA 93101**

805-564-5433 www.santabarbaraca.gov