



ATTACHMENT B:

B1: VTA PLANTING GUIDELINES

PLANT PALETTE RECOMMENDATIONS FOR SANTA CLARA VALLEY TRANSPORTATION AUTHORITY PROJECTS

Prepared For:

Santa Clara Valley Transportation Authority
3331 North First Street, Building B
San Jose, CA 95134-1927
Contact: Kelly Snider

This Attachment Prepared By:
RELM
617 S. Olive Street | Suite 1110
Los Angeles, CA 90014



CONTENTS

Introduction	3
Species Selection Summary	5
Landscape Typologies	7
Trees Species List (fold out)	17
Trees Species Photos	21
Understory Species List (fold out)	30
Understory Species Photos	39
References	48



INTRODUCTION

To assist in the design and development of Transit Oriented Development projects at Valley Transportation Authority (VTA), Landscape Architects at RELM collaborated with VTA to develop this landscape planting guide in line with the recommendations outlined in the VTA's Green Building and Sustainable Landscape Policy. This document is intended to serve as a 'quick-start' guide for selecting plants that work well with the majority of landscape typologies utilized in TOD projects in the San Jose Area. Included in this recommendation, is a list of drought-tolerant tree and understory species that can be incorporated into TOD planting designs to create ecologically functional landscapes that will shape the new urban centers TOD projects engender.

This document includes a pre-approved list of plant species to select from that meet the intent of the VTA Green Building and Sustainable Landscape Policy Standards. This list is not comprehensive and additional species may be brought to VTA for approval.

This document acts as a plant-focused supplement to the lengthier VTA Sustainable Landscape Policy, the VTA Landscaping and Stormwater Design Criteria Manual, and (where applicable for City/County stormwater facilities) the Santa Clara Valley Urban Runoff Pollution Prevention (SCVURPP) Design Criteria Guidelines. The full documents are referenced frequently during the design process for all TOD projects. The primary goals of these documents as they relate to landscape planting are reiterated here for quick reference.

1. Conserve Water Resources
 - Use low water-use, drought-tolerant, climate-adapted plants
 - Plant low maintenance, drought tolerant or native plant species

2. Reduce or Prevent Pollution
 - Plant low maintenance plants that require minimal fertilizers, pesticides and herbicides.
 - Refer to the Santa Clara Valley Urban Runoff Pollution Prevention Program's Planting Guidance for Landscape-Based Stormwater Measures, C.3 Storm water Handbook, Appendix D, for plants appropriate for various biofiltration methods.

3. Improve Wildlife Habitat and Biodiversity
 - Select plants native to California that provide habitat and food for birds, insects, and other wildlife;
 - Under no circumstances shall any plants listed as invasive by the California Invasive Plant Council's Invasive Plant Inventory be used for landscaping.

SPECIES SELECTION SUMMARY

TREES

Growing healthy, enduring trees in urban environments is inherently difficult, and current climatic fluctuations are exacerbating the challenges. Fortunately, there are many organizations researching and publishing on the topic with a selection listed below.

- CANOPY (<https://canopy.org/>)
- San Francisco Estuary Institute (<https://www.sfei.org>)
- Urban Forest Ecosystems Institute: Cal Poly (<https://selectree.calpoly.edu/>)
- Our City Forest (www.ourcityforest.org)
- Stanford University - Tree List of Campus Trees (<http://trees.stanford.edu/>)
- City of San Jose Community Forest Management Plan. (<https://sanjosecfmp.com>)

A review of recent work coming out of these municipal, non-profit and academic organizations demonstrates consensus on the importance of species diversity in maintaining a healthy urban forest. In general, the ideal distribution of any single tree species is recommended to be no more than 10% of the total tree quantity within a designated area. According to the recently published City of San Jose Tree Policy Manual, San Jose's current street tree make up includes four species that currently exceed the 10% capacity rule, namely Chinese Pistache (*Pistacia chinensis*), Crape Myrtle (*Lagerstroemia* spp.), London Plane (*Platanus acerifolia*) and Western Sycamores (*Platanus racemosa*). These species are no longer approved for new plantings within San Jose city limits. These four species are included on the VTA species list due to the occasional need to match existing street tree species, but are not recommended for new plantings.

Another critical criteria for tree selection is the estimated water use of a given species. In general, trees selected for the VTA approved list are in the low water use WUCOLS category for the San Jose area. However, select moderate water use trees which are deemed climate appropriate when used in the correct location (i.e. bioswale or riparian) are included given the variety of microclimates encompassed by VTA TOD project sites. These plants may be included in TOD sites provided that the total calculated water use demonstrates the project site will still be in compliance with the Maximum Applied Water Allowance (MAWA) per Cal Green.

UNDERSTORY

Understory species listed here are all climate appropriate for the South San Francisco Bay Area. The vast majority are low-water use, with some moderate water use species included for select appropriate micro-climates (shaded north-facing facades, riparian waterways, etc.) with minimal use.

The use of native plants is encouraged as native plants support native wildlife, however, select adapted and well-suited plants from other Mediterranean areas are included on this list. Native plants are an important component and provide habitat value to a variety of native insects, however urban sites occasionally benefit from natives intermixed with hearty, non-native plants that may originate from similar climates such as Australia or the desert southwest and may be very appropriate to the Bay Area as the summers get hotter. In general, TOD plant palettes should strive to be a minimum of 70% native species.

A diverse list of plants is offered most of which are on the Santa Clara Valley Water District list for lawn-replacement plants and meet MWELo Cal Green Requirements. Many plants overlap with those listed in Appendix D of SCVURPPP's C.3 Stormwater Handbook. Given that VTA land traverses multiple municipalities, plants on this list should be cross-checked with current local municipal tree and landscape guidelines as well as local soil conditions, micro-climates and adjacencies.

Species are characterized by plant type, as listed below which, in nature work together to create habitats that are structurally rich. Where possible, multiple plant types should be used together to create layered plantings to maximize habitat value. Upon project completion, natural plant maintenance training is recommended for contracted maintenance companies to achieve lasting aesthetic and ecological functionality.

The majority of species listed are readily available in the nursery industry, especially some of the many native plant nurseries in the Bay Area. The list is also available in Excel and intended to be sortable based on needs of a given TOD project. The list is not exhaustive and additional plants may be proposed and approved by VTA.

SITE SPECIFIC CONDITIONS: SOILS, HYDROLOGY

The Santa Clara Valley has soil and hydrologic conditions that vary greatly depending on location. Low lying areas near the Bay are predominately clay soils that are inherently difficult to drain. In these areas, planting soil for TOD landscapes should be amended and supplemental drainage added. Other areas, such as those along drainage ways, are underlain with fast draining alluvium soils suitable to a variety of native species. Much of San Jose is subject to intermittent flooding and select TOD sites will be located atop a very high ground-water table, similar to the Berryessa Bart Station location. Other areas within the South Bay are underlain with sandy loam soil that supported farms and orchards for much of the last century. Plants should be tailored to soil type and drainage patterns of specific to each TOD location.

IRRIGATION TYPE / WATER SOURCE

A factor that must be considered when planting in the urban South Bay is the use of recycled water for irrigation. Although water quality will vary depending on water provider, in general, recycled water is higher in salts and other dissolved particulates that can negatively impact plant establishment and long term health. It is recommended that landscape designers review a water quality report from the water provider to obtain salinity levels of recycled water available for irrigation prior to plant selection.

Irrigation quantity, frequency and method of application can be tailored to render the best possible soil conditions using the available water. In general, plants are more susceptible to salt damage from direct contact (spray) than when applied to soil and roots (drip). Salt tolerance, when known, is listed in the plant lists and salt-tolerant species should be favored for sites irrigated with recycled water. References for further study are included in the Reference section.

TOD LANDSCAPE TYPOLOGIES

Although the specific planning and development goals for each TOD project will vary, as will the site conditions, there is a common set of landscape elements that will typically combine in various forms to create the TOD landscape. Working together, RELM and VTA defined nine landscape typologies common to the public spaces of TOD projects. Private courtyards and roof terraces were purposely excluded from this document as they do not comprise the public space of TODs. Descriptions of each typology are found on the following pages. Approved plants are tagged with the typologies for which they are appropriate. Most plants can be applied to more than one typology.

- Major Streets (4+ lanes of traffic)
- Minor Streets (2+ lanes of traffic)
- Paseo (pedestrian)
- Plaza
- Passive green space
- Surface parking lots
- Biofiltration and Bioswales
- Riparian
- Landscape Buffers and Slopes

MAJOR STREETScape (4+ lanes vehicular traffic)

Many TOD sites will include major vehicular streets, those with four or more lanes of traffic. These streets should be designed to encompass elements that yield 'Complete Streets' prioritizing pedestrian, bicycle and public transportation modes. Street trees on larger streets serve to separate pedestrian and vehicular zones, provide shade and encourage walk-ability. Trees should be coordinated with other streetscape features such as street lights, trash and recycling receptacles, signage, bicycle parking and outdoor seating, among others. Existing street trees and/or municipal street tree plans should be consulted for each TOD site and, where possible, followed within the TOD landscape plans.

Street trees on major streets need to be of large enough stature when mature to allow for transit flow beneath them (bus, light rail), typically 15'-20' high. Adequate soil rooting volume is critical for long term health and viability of street trees. Minimum tree-pit openings should be 5' wide x 12'-18' long. Continuous parkways between the pedestrian sidewalk and vehicular street are preferred, with breaks as needed for pedestrian crossings. Recommended spacing between trees is 25'-30' on center. Understory plantings should be included where possible and planted with relatively uniform species distribution.

Characteristics of Major Streetscape Trees:

- Central Leader
- High Branching, 8' min. clear over sidewalk at install, growing to 15'-20' clear
- Strong wooded and good structure with minimal ongoing pruning required
- Contained root system, minimal pavement uplift
- Disease and pest resistant
- Minimal fruit litter

Characteristics of Major Streetscape Understory Plantings:

- Height between 18" - 24" tall to maintain visibility between street and sidewalk.
- Evergreen dominated plant mix with scattered perennials if desired for color
- Low maintenance



High branched, limbed up trees



Trees and understory combined



Kennedy Plaza, DG with street trees

MINOR STREETScape (1-2 lanes vehicular traffic)

The smaller streets within TOD sites allow for more equal distribution of pedestrian / active transport zone (bikes, scooters, e-bikes) and vehicular traffic zones. Streetscape planting should reflect this shift to the pedestrian scale by offering more variation and seasonal interest. Species selection can be more focused on the local site-design strategy rather than larger city-wide plans. Tree spacing can be reduced to every 20'-25' allowing for species of smaller mature stature to be planted in smaller planting areas. Traffic calming measures such as planted parkways and curb bulb-outs offer more room to insert diverse trees and plants. Understory planting should remain focused on visibility, maintenance and durability, but can begin to expand in species diversity with added hardy perennials.

Development sites require emergency vehicle access routes (EVAs) integrated within the new built fabric. These should be treated as minor streets in terms of planting and would serve primarily as pedestrian and active transit only routes. Trees and planting along these routes should be designed to provide sufficient room for maneuvering of large emergency vehicles and their required outriggers while also creating a comfortable pedestrian environment.

Characteristics of Minor Streetscape Trees:

- Central Leader or whorled branching structure trained to be upright
- High Branching, 8' min. clear over sidewalk, growing to 10-15' clear
- Strong wooded and good structure with minimal ongoing pruning required
- Contained root system, minimal pavement uplift
- Disease and pest resistant

Characteristics of Minor Streetscape Understory Plantings:

- Height between 18" - 24" tall to maintain visibility between street and sidewalk.
- Low maintenance



Smaller stature trees



Mixed understory planting



Continuous Parkway

PASEO

Paseos, or small streets without consistent vehicle traffic will interweave through new TOD sites, creating routes for pedestrian and active (bike, scooter, e-bike) transportation. These linear public open spaces should be planted in such a way to encourage walkability and outdoor social interactions with shade, seasonal interest and spaces for social interaction. The narrow configuration of these spaces creates shady, protected planting areas which can be planted with a diversity of native small trees and understory plants. Adequate rooting volume is required and construction details that allow for planting soil to be extended beneath pedestrian pavement should be explored.

Characteristics of Paseo Trees:

- Deciduous - seasonal color, allow winter light down to ground surface
- Narrow, Upright or Smaller Stature
- Strong structure (minimal risk of branch failure)
- Minimal pavement uplift

Characteristics of Paseo Understory Plantings:

- Height can vary depending on local adjacencies, taller narrow shrubs may work in some areas, more sculptural small trees can be planted where space allows.
- Combination of evergreen and flowering
- Low maintenance



Narrow, upright trees to allow emergency vehicle access



Mixed scale of trees and plantings

PLAZAS

TOD projects are inherently spaces where people come to gather in the public realm. Plazas at station entries, intersections and associated with retail development are a critical component of these new urban centers. Trees and plants play a significant role in these plazas, providing shade and serving as the 'ceiling' for these outdoor 'living rooms.' Plazas are dynamic spaces, at times hosting large civic and cultural events, food trucks and farmers markets and at other times being quiet spaces operating as 'outdoor living rooms' for the local residents and transit users. Tree planting must be able to support these diverse programmatic uses and soil should be designed in such a way that allows trees to thrive in a hardscape condition. Where possible, understory planting should be included, but should be durable and able to withstand foot traffic.

Characteristics of Plaza Trees:

- Shade trees
- Single specimen trees if large plant bed is available
- Groves of central leader trees.... High Branching
- Small Groupings of smaller trees, multi-stem to create definition at edges
- Seasonal color / Deciduous

Characteristics of Plaza Understory Planting:

- Tolerant of foot traffic



Paved or Artificial Turf area with Trees



Tree Grates



Trees in large openings

PASSIVE GREEN SPACE

TOD sites will have a variety of passive green spaces which serve as interstitial space between and around buildings, plazas and parking areas. Trees in these areas can be wider and more low-branched than trees occupying spaces with pedestrians and traffic. These are areas that can support greater diversity within plant beds and support a variety of native species.

Select areas may be occupiable and planted with typical low-water use turf lawn or a natural lawn such as a no-mow fescue or sedge meadow. Non-occupiable plant beds shall be planted with a mix of flowering and evergreen species.

- Characteristics of Passive Green space Trees:
- Shade Trees
 - Smaller, understory trees, flowering accents
 - Upright trees for narrow spaces, tall hedge-like species

- Characteristics of Passive Green space Understory Plantings:
- Fescue or No-Mow lawn or native sedges meadow
 - Diverse blend of perennials, range of heights
 - Seasonal interest



Lawn, bioswale and plant bed cohesively planted



Multi-species planting



Diverse species, bloom times and structure

BIORETENTION AND BIOSWALES

Bioretention, bioswales and green infrastructure are a critical landscape component of all TOD projects in terms of managing stormwater pollution. To that end, VTA developed a detailed Stormwater and Landscaping Design Criteria Manual (DCM) that outlines various stormwater management strategies and the associated permit process, and is applicable not only to TOD projects but to all VTA sites. While the DCM includes a list of acceptable plants by VTA stormwater management type, this TOD focused document includes a selection of species applicable to all types of stormwater management and serves as a good starting point for TOD plant selection. Further detail can be found in the DCM.

Not all bioretention basins and bioswales can support trees, but where applicable trees should be included to provide additional habitat value. Note that both the trees and understory species in bioretention basins and bioswales should tolerate both wet and dry conditions. Also, in facilities where an underdrain is required, the roots of trees and large shrubs may grow into the slots of the underdrain pipe which can lead to increased maintenance and/or result in reduced performance of the basin which shortens the life of the bioretention facility. Thus, planting design in and these areas with an underdrain should be given careful consideration. Finally, in facilities with a liner, special care must be taken in the planting palette and design of the facility to accommodate plant health, and typically trees cannot be accommodated when a liner must be used.

Characteristics of Bioretention and Bioswale Trees:

- Tolerant of both inundated and dry conditions
- Minimal leaf litter which can prevent proper filtration capacity if not maintained

Characteristics of Bioretention and Bioswale Understory Plantings:

- Tolerant of both inundated and dry conditions
- Not too tall as to block irrigation heads



Berryessa Station Bioretention Basin



Sample Streetscape Bioswale



Milpitas Station Bioswale

SURFACE PARKING LOTS

Parking lots will be a component of many TOD projects and should be designed to have as much integrated planting as possible. Per current Cal Green Code, at least fifty percent of the parking area is required to be shaded within fifteen years after the establishment of the lot which can be provided by a combination of PV panel structures and trees. Thus, trees should be relatively fast growing but also long-lived and spreading. It is critical that parking lot trees are provided with the rooting volume of un-compacted soil to allow trees to thrive. Often, trees in small tree pits are seen in poor condition as early as 2-5 years after planting. Structural soil (CU Mix) is one option that can extend rooting area beneath the asphalt pavement surface with relatively minimal cost increase.

Bioretention basins and bioswales are often closely tied with the parking lots and available planting area will often have to serve two purposes - providing shade, habitat and stormwater management.

Characteristics of Parking Lot Trees:

- Upright
- Fast Growing or Mix of Fast and Moderate Growing
- Strong structure (minimal risk of branch failure)
- Many species will overlap with Bioretention and Bioswale Tree List

Characteristics of Parking Lot Understory Plantings:

- Evergreen and Flowering



Evergreen groundcover with trees



Bioswale with trees and minimal planting



Bioswale and Planting with Trees

RIPARIAN / NATURAL EDGES

In areas where a TOD Site is located adjacent to a designated Creek or Waterway, extreme care must be taken to follow planting guidelines prescribed by the Santa Clara Valley Water District in order to protect habitat, stream stability, water quality and flood protection.

In areas within a 50' min. buffer from Top of Bank, Santa Clara Valley Water District requires the use of locally native plants. These plants are to be propagated from seeds, cutting or divisions collected from lame local creek or watershed and grown according to criteria listed in Santa Clara County Water District – to prevent spread of Sudden Oak Death. Care should be taken to minimize impact to existing native vegetation along creeks.

In areas adjacent to Creeks and drainages but not directly within the buffer zone, local native species should be planted to maximize habitat value.

- Characteristics of Riparian Trees:
- Native
 - Habitat Value
 - Non-Invasive (including invasive natives)

- Characteristics of Riparian Understory Plantings:
- Native
 - Habitat Value
 - Non-Invasive (including invasive natives)



Naturally planted riparian habitat area



Grasses with leaf litter, natural design, no irrigation



Deer Grass in public park adjacent to creek



Alnus rhombifolia, only near creek

GRADE SEPARATION / SLOPES / LANDSCAPE BUFFERS

Perimeters of the development areas and any easements or landscape adjacent to public lands should have a native palette so they serve as habitat corridors and require minimal to no supplemental irrigation post establishment. Species diversity in both tree and groundcover layers is recommended to promote year-round flowers and fruits. One of the most common species on the slopes of the Santa Clara Valley is the California Buckeye, and this tree should be used when possible in these conditions.

For slopes greater than 3:1, biodegradable (not plastic-woven) erosion control netting is recommended and trees should be installed at a smaller box size (24" or 36" box). Installing smaller trees does require slightly more maintenance during the first 1-2 years post installation in order to have an arborist prune the trees as they mature to encourage healthy structure that will require less maintenance over time. Grasses and spreading groundcovers are recommended understory species with intermittent native shrubs to enhance woodland structure and habitat value.

Characteristics of Slope / Buffer Trees:

- Native, natural forms or multi-stem
- Habitat Value

Characteristics of Understory Slope / Buffer plantings:

- Fast-growing
- Spreads by Rhizomes or Deep roots of perennial grasses
- Low maintenance



Sedge or Grass slope



Mixed shrub planting for buffer area



Naturally planted slope, groundcovers and scattered native shrubs



Mixed shrub and perennial edge planter

TREE SPECIES PLANT LIST

The following plant list includes trees species recommended for use at TOD projects.

Basic species information is provided. Species have an X in the box for each Landscape Typology for which they are appropriate.

* Water Use Information provided by WUCOLS for San Jose, from https://ucanr.edu/sites/WUCOLS/Plant_Search/

VL = very low water use L=low water use, M=moderate water use (use sparingly, highlighted in blue), H=high water use (not recommended)

** Salt Tolerance Information as available from varied sources.

H = highly tolerant, M = moderately tolerant, will typically show minimal symptoms, L= not tolerant/ sensitive, will exhibit symptoms

*** Species not recommended for planting in City of San Jose. Do not use on TOD sites unless needed to match existing street trees.

California Native Species highlighted in yellow

Latin Name	Common Name	Comments/ Notes	Decid / Evgrn / Flwr / Confr / Shrub-like	Mature Size H' X W'	WATER USE WUCOL San Jose*	Salt Tolerance for RCW (H,M,L)**	CA Native (Y/N)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Acer buergerianum</i>	Trident Maple	Non, native but may be better at handling summer drought of bioswales	Decid	25'-30' x 25'-30'	M	M	N			X	X						X
<i>Acer macrophyllum</i>	Big Leaf Maple	Shade, consistent moisture, protected	Decid	30-75' x 30-50'	M	M	Y						X		X		X
<i>Acer negundo californicum</i>	California Box Elder	Fall color, may be slightly more drought tolerant than Acre macrophyllum	Decid	20'-30' x 20'-30'	M	L	Y								X		X
<i>Aesculus californica</i>	Califronia Buckeye	Wildlife value, Summer Deciduous	Decid / Flwer	20-30' x 15-30'	L	L /M	Y						X		X	X	
<i>Afrocarpus gracilior</i>	African Fern Pine	Find Good Proven Example	Evgrn / Conifer	50-65' x 20-30'	L	M	N		X					X			
<i>Agonis flexuosa</i>	Peppermint Tree		Evgrn	25-35' x 15'-30'	M	M	N			X				X		X	
<i>Alnus rhombifolia</i>	White Alder	Water - But Riparian, Bioswale	Decid / Flwer	50-90' x 40-70'	M	M	Y										X
<i>Arbutus unedo</i>	Strawberry Madrone	Single Stem, Fruiting, Not over Pvmt	Evgrn / Flwer	20-30' x 15-40'	L	M	N									X	
<i>Arbutus x 'Marina'</i>	Marnia Madrone	Standard for Streets/Pkg Lots, Mutli for Planting	Evgrn / Flwer	40-50' x 25-40'	L	M	N				X		X				
<i>Brachychiton populneus</i>	Kurrajong	Pale Cream Flowers	Decid / Flwer	50-60' x 30-40'	L	M	N						X				
<i>Calocedrus decurrens</i>	Incense Cedar	Large planting area required	Conifer	50'-80" x 30-40'	L	L	Y						X			X	
<i>Carpinus betulus</i>	Fastigiate European Hornbeam	Hedge, Perimeter	Decid / Flwer	35-40' x 20-30'	M	M	N									X	
<i>Cedrus atlantica glauca 'fastigata'</i>	Columnar Blue Atlas Cedar	Good Narrow Tree - Screen, Hedge	Conifer	40-60' x 25-40'	L	M	N				X					X	
<i>Cedrus deodara</i>	Deodar Cedar	Large planting area required	Conifer	40-60' x 20-30'	L	M	N						X			X	
<i>Celtis laevigata var. reticulata</i>	Netleaf Hackberry (Western Hackb)	Dry fruit litter	Decid	25'-30' x 25'-30'	L	L/M	Y										X

TREE SPECIES PLANT LIST

Latin Name	Common Name	Comments/ Notes	Decid / Evgrn / Flwr / Confr / Shrub-like	Mature Size H' X W'	WATER USE WUCOL San Jose*	Salt Tolerance for RCW (H,M,L)**	CA Native (Y/N)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Celtis sinensis</i>	Chinese Hackberry	Dry fruit litter suseptible to Asian woolly aphid	Decid	25-35' x 25-30'	L	L	V										X
<i>Cercis canadensis var. texensis</i>	Oklahoma Redbud	Smaller, Bushier Tree	Decid / Flwer	25-35' x 25-35'	L/M	L	N									X	
<i>Cercis occidentalis</i>	Western Redbud	Local native, flowering, needs good drainage	Decid / Flwer	12-20' x 20-15'	L	M	Y				X		X		X	X	
<i>Chilopsis linearis 'Bubba'</i>	Desert Willow	Small flowering accent tree, native to southern Cali	Decid / Flwer	12-20' x 10-15'	L	H	Y				X		X	X		X	
<i>Chionanthus retusus</i>	Chinese Fringetree	Small flowering accent tree	Decid / Flwer	10-20' X 6-12'	M	M	N				X						
<i>Chitalpa tashkentensis 'Pink Dawn'</i>	Pink Dawn Chitalpa	Cross between Catalpa nad Chilopsis, Smaller flowering tree	Decid / Flwer	25-35' x 25-35'	L	M	N			X	X	X		X			
<i>Corylus cornuta var. californica</i>	Western Hazelnut	Shade only, protected areas	Decid / Flwer	15-18' x 12-18"	M	M	Y				X				X	X	
<i>Corymbia ficifolia</i>	Red Flowering Gum	Good Wildlife Plant, Salt Tolerant	Evgrn / Flwer	18-45' x 15-60'	L	H	N		X								
<i>Fraxinus latifolia</i>	Oregon Ash	Generally not recommended, Weak wooded, Emerald Ash Borer but could	Decid	65-80' x 50'	M	M	Y							X			X
<i>Fraxinus velutina</i>	Arizona Ash	Weak wooded, Emerald Ash Borer, older trees require significant	Decid	30-50' x 30-40'	M	M	Y							X			X
<i>Geijera parviflora</i>	Australian Willow	More commonly planted in southern CA, select good structure in nursery	Evergreen	25-35' x 20'	L	H	N		X	X				X			
<i>Ginkgo biloba "Autumn Gold"</i>	Maidenhair Tree	Can turn back to female, Use sparingly in narrow conditions for yellow fall color	Decid	25-50' x 25-35'	M	L	N			X	X						
<i>Gledistia triacanthos var. inermis 'Shademaster'</i>	Thornless Honey Locust	Fast growing, minimal seed pods, ensure good structure at nursery	Decid / Flwer	45' x 35'	L	L	N			X	X	X					
<i>Hesperocyparis arizonica</i>	Arizona Cyress	Screen tree, can be used at edges of bioswales	Conifer	30-40' x 15-20'	L	H	N						X			X	
<i>Hesperocyparis forbesii</i>	Tecate Cypress		Conifer	10-25' x 20'	L	H	Y						X			X	X
<i>Juglans californica</i>	California Black Walnut	Drops large fruit, Not over pedestrian areas	Decid	15' - 30' x 15' - 30'	L	L	Y								X	X	X
<i>Koelreuteria bipinnata</i>	Chinese Flame Tree	Good shade trees	Decid / Flwer	20-35' x 25-40'	M	M	N		X	X		X		X			
<i>Lagerstroemia spp. (Not Recommended) ***</i>	Crepe Myrtle ***	Only to match existing street trees, over planted in San Jose	Decid / Flwer	25' x 25'	L	L	N										
<i>Laurus nobilis</i>	Grecian Laurel	Sensitive to clay soils and poor drainage, plant only in bioswales	Evgrn	15-20' x 20-25'	L	M	N										X
<i>Lophostemum confertus</i>	Brisbane Box		Evgrn / Flwer	30-50 x 10-30'	L	M	N		X	X				X			
<i>Lyonothamnus floribundus</i>	Catalina Ironwood	Needs drainage, good in tight groves	Evgrn / Flwer	25-50' x 12-24'	L	M	Y				X		X			X	

TREE SPECIES PLANT LIST

Latin Name	Common Name	Comments/ Notes	Decid / Evgrn / Flwr / Confr / Shrub-like	Mature Size H' X W'	WATER USE WUCOL San Jose*	Salt Tolerance for RCW (H,M,L)**	CA Native (Y/N)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Maleleuca ericifolia</i>	Swamp Paperbark	Salt tolerant	Evgrn / Flwer	20-40' X 15-25'	L	H	N						X				
<i>Melaleuca stypheliodes</i>	Prickly Paperbark	Salt tolerant, often multi-trunked	Evgrn / Flwer	30-40' x 10-20'	L	M	N				X		X	X			
<i>Metrosideros excelsa</i>	New Zealand Christmas Tree		Evgrn / Flwer	30-35' x 30-35'	L	M	N			X	X			X			
<i>Olea europea 'Swan Hill'</i>	Fruitless Olives	also Wilsonii, multitrunk - can be limbed up to height of 8' clear if needed	Evgrn	25-30' x 25-30'	L	M	N				X	X	X	X			
<i>Parkinsonia x 'Desert Museum'</i>	Palo Verde	Native to desert southwest	Decid / Flwer	15-25' x 15-20'	L	H	Y				X	X	X				
<i>Pinus eldarica</i>	Mondell Pine	Tolerates Clay Soi	Conifer	30-80' x 15-25'	L	M	N		X					X		X	
<i>Pinus torreyana</i>	Torrey Pine	Very large cones, not over pedestrian/parking areas	Conifer	40-60' x 20-30'	L	M	Y								X	X	
<i>Pistacia chinensis (Not Recommended) ***</i>	Chinese Pistache ***	Only to match existing street trees, overplanted in San Jose	Decid / Flwer	25-35' x 25-35'	L	M	N										
<i>Plantanus racemosa</i>	Western Sycamore	Use in bioswales, Ensure that nursery stock is straight species, not hybridized.	Decid	30-80' x 20-50'	M	M	Y										X
<i>Platanus x acerifolia (Not Recommended) ***</i>	London Plane Tree ***	Only to match existing street trees, overplanted in San Jose	Decid	70-85' x 50-70'	L	M	N										
<i>Populus fremontii</i>	Fremont Cottonwood	gold fall color, surface roots, weak branches	Decid	40-80' x 30-50'	M	M	Y								X		X
<i>Propospis glandulosa 'Maverick'</i>	Thornless Honey Mesquite	Spreading, need sufficient planter width, Native to desert southwest	Decid / Flwer	25-35' x 20-35'	N/A	H	Y						X	X			
<i>Prunus ilicifolia ssp. lyonii</i>	Catalina Cherry	Wildlife value, fruiting, good screen	Decid / Flwer	25-35' x 20-30'	L	M	Y								X	X	
<i>Prunus serrulata 'Kwanzan'</i>	Japanese Flowering Cherry	Needs good drainage, no clay soils	Decid / Flwer	30' x 20-30'	M	M	N					X					
<i>Pyrus calleryana (Not Recommended) ***</i>	Callary Pear ***	Only to match existing street trees, Invasive in waterways	Decid / Flwer	15-30' x 10-25'	M	M	N										
<i>Quercus agrifolia</i>	Coast Live Oak	Needs large planting area, drops acorns	Evgrn	20-70' x 20-70'	L	M	Y						X	X	X	X	
<i>Quercus douglasii</i>	Blue Oak	Habitat species, difficult to source/establish	Decid	20-70' x 20-70'	L	L	Y										
<i>Quercus engelmannii</i>	Engelmann Oak	Needs large planting area	Evgrn	50-65' x 80-120'	L	M	Y		X			X		X			
<i>Quercus frainetto 'Schmidt'</i>	Hungarian Oak	Grafted, good symmetry potential	Decid	100' x 70'	L	L	N					X		X			
<i>Quercus fusiformis</i>	Escarpment (Texas) Live Oak	Similar to Q. Virginiana, more drought tol.	Semi-Deciduous	20-40' x 20-40'	L	M	N			X		X	X	X			
<i>Quercus hypoleuroides</i>	Silverleaf Oak	Difficult to source, but great tree	Evgrn	30-60' x 20-30'	L	M	Y				X		X			X	

TREE SPECIES PLANT LIST

Latin Name	Common Name	Comments/ Notes	Decid / Evgrn / Flwr / Confr / Shrub-like	Mature Size H' X W'	WATER USE WUCOL San Jose*	Salt Tolerance for RCW (H,M,L)**	CA Native (Y/N)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Quercus ilex (Not recommended) ***</i>	Holly Oak ***	Only to match existing street trees	Evgrn	30-60' x 30-60'	L	M	N										
<i>Quercus kelloggii</i>	California Black Oak	Local Native, slow growing, difficult to source	Decid	30-70' x 30-50'	L	M	Y						X			X	
<i>Quercus lobata</i>	Valley Oak		Decid	50-70' x 50'	L	L/M	Y		X			X		X	X		X
<i>Quercus rugosa</i>	Netleaf Oak		Evgrn	30-50' x 20-30'	L	M	N		X	X				X		X	
<i>Quercus suber</i>	Cork Oak	Needs large planting area	Evgrn	50'-70' x 50' - 70'	L	M	N		X	X		X		X			
<i>Quercus tomentella</i>	Island Oak		Evgrn	20-50' x 25-40'	L	L	Y			X	X		X			X	
<i>Quercus virginiana</i>	Southern Live Oak	Needs large planting area	Evgrn	40-80' x 60-100'	M	M	N					X	X	X			X
<i>Quercus wislizenii</i>	Interior Live Oak	Difficult to source	Evgrn	30-70' x 40-80'	L	L	Y									X	
<i>Salix laevigata</i>	Red Willow	Habitat value, riparian, can limit visitbility	Evgrn-Shrub-like	25-50' x 15-35'	M	M	Y								X		
<i>Salix lasiolepis</i>	Arroyo Willow	Habitat value, riparian, can limit visitbility	Evgrn-Shrub-like	10-35'	M	M	Y								X		
<i>Sambucus nigra ssp. caerulea</i>	Blue Elderberry	Habitat value, riparian, can limit visitbility	Decid / Flwr	20 x 20'	L	M	Y								X	X	X
<i>Sequoia Sempervirens (Not recommended) ***</i>	Coastal Redwood ***	High Water Use, use only to match	Conifer	70-100' x 15-30	H	L	Y										
<i>Taxodium distichum</i>	Bald Cypress	Use at bottom of bioswales that allow tree	Conifer / Decid	60-80 x 20-30;	M	L	N										X
<i>Tilia tomentosa 'Sterling'</i>	Steriling Linden		Decid	40-50' x 20-30'	L	M	N		X	X	X						
<i>Tristaniopsis laurina 'Elegant'</i>	Elegant Water Gum		Evgrn	20-35' x 15-25'	M	M	N		X	X	X			X			
<i>Ulmus parvifolia</i>	Chinese Elm	Emer II', Fronteir, Sepmervirens, good fast growing shade tree	Semi-Deciduous	35-45' x 35-50'	M	M	N						X				

TREE SPECIES PHOTOS: MAJOR STREETS



AFRICAN FERN PINE

Afrocarpus gracilior
Water Usage : Low



MONDELL PINE

Pinus eldarica
Water Usage : Low



RED FLOWERING GUM

Corymbia ficifolia
Water Usage : Low



ARIZONA ASH

Fraxinus velutina
Water Usage : Low



CHINESE FLAME TREE

Koelreuteria bipinnata
Water Usage : Medium



SILVER LINDEN

Tilia tomentosa
Water Usage : Low



CORK OAK

Quercus suber
Water Usage : Low



ENGELMANN OAK

Quercus engelmannii
Water Usage : Low



VALLEY OAK

Quercus lobata
Water Usage : Low

TREE SPECIES PHOTOS: MINOR STREETS



PEPPERMINT TREE

Agonis flexuosa
Water Usage : Low



NETLEAF OAK

Quercus rugosa
Water Usage : Low



ISLAND OAK

Quercus tomentella
Water Usage : Low



PINK DAWN CHITALPA

Chitalpa tashkentensis 'Pink Dawn'
Water Usage : Low



AUSTRALIAN WILLOW

Geifera parviflora
Water Usage : Low



AUTUMN GOLD GINKGO

Ginkgo biloba 'Autumn Gold'
Water Usage : Low/Medium



HONEY LOCUST

Gleditsia
Water Usage :



SILVERLEAF OAK

Quercus hypoleucoides
Water Usage : Low



IRON TREE

Metrosideros excelsa
Water Usage : Low

TREE SPECIES PHOTOS: PASEO



STRAWBERRY TREE
Arbutus unedo single stem
Water Usage : Low



FASTIGATE BLUE ATLAS CEDAR
Cedrus atlantica galuca fastigata
Water Usage : Low



WESTERN REDBUD
Cercis occidentalis
Water Usage : Low



PALO VERDE
Parkinsonia x 'Desert Museum'
Water Usage : Low



PINK DAWN CHITALPA
Chitalpa tashkentensis 'Pink Dawn'
Water Usage : Low



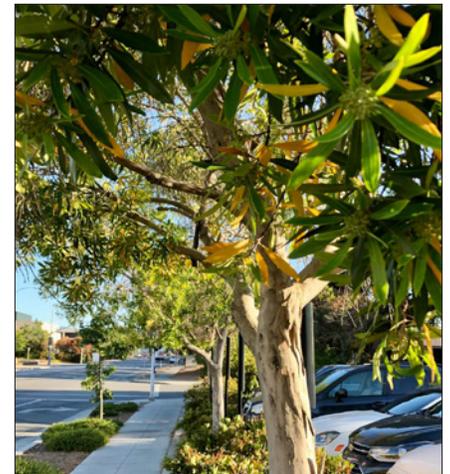
SWAN HILL OLIVE
Olea europaea 'Swan Hill'
Water Usage : Low



Santa Cruz Island Ironwood
Lyonothamnus floribunda
Water Usage : Low



SILVERLEAF OAK
Quercus hypoleucoides
Water Usage : Low



ELEGANT WATER GUM
Tristaniopsis laurina 'Elegant'
Water Usage : Low

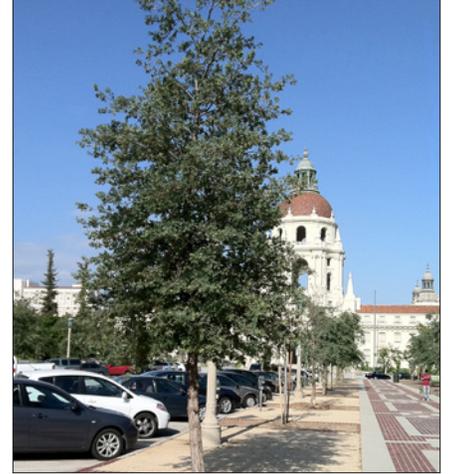
TREE SPECIES PHOTOS: PLAZA



PALO VERDE
Parkinsonia x 'Desert Museum'
Water Usage : Low



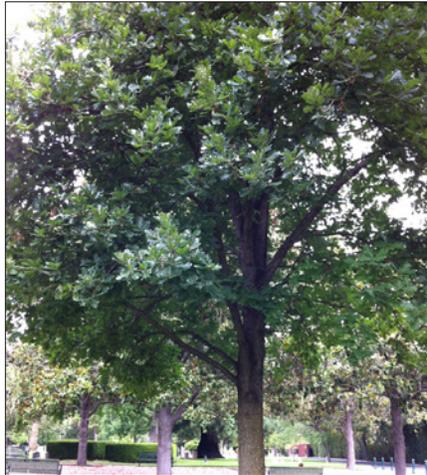
SWAN HILL OLIVE
Olea europea 'Swan Hill'
Water Usage : Low



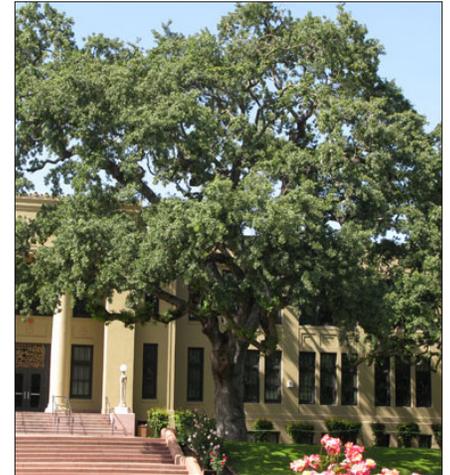
ENGELMANN OAK
Quercus engelmannii
Water Usage : Low



CORK OAK
Quercus suber
Water Usage : Low



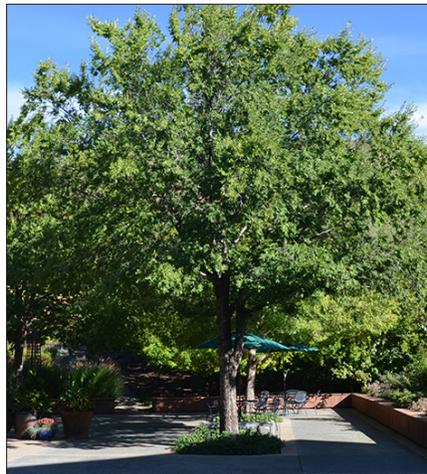
HUNGARIAN OAK
Quercus frainetto 'Schmidt'
Water Usage : Low



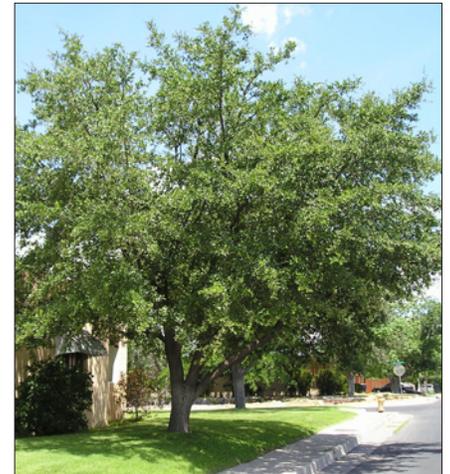
VALLEY OAK
Quercus lobata
Water Usage : Low



HONEY LOCUST
Gleditsia triacanthos
Water Usage : Low



DRAKE CHINESE ELM
Ulmus parvifolia 'Drake'
Water Usage : Medium



HERITAGE LIVE OAK
Quercus fusiformis
Water Usage : Low

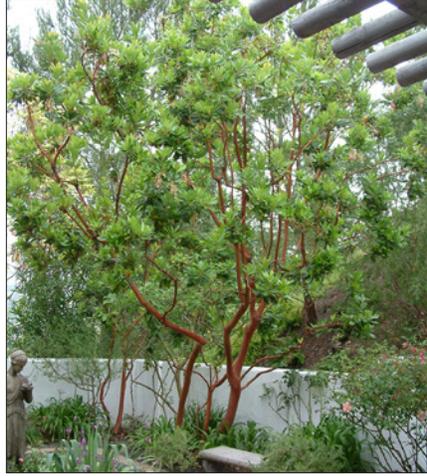
TREE SPECIES PHOTOS: PASSIVE GREEN SPACE



CALIFORNIA BUCKEYE

Aesculus californica

Water Usage : Low



MARINA STRAWBERRY TREE

Arbutus x 'Marina'

Water Usage : Low



DEODAR CEDAR

Cedrus deodara

Water Usage : Low



PALO VERDE

Parkinsonia x 'Desert Museum'

Water Usage : Low



ARIZONA CYPRESS

Hesperocyparis forbesii

Water Usage : Low



HEATH MELALEUCA

Melaleuca ericifolia

Water Usage : Low



WESTERN REDBUD

Cercis occidentalis

Water Usage : Low



COAST LIVE OAK

Quercus agrifolia

Water Usage : Low



CALIFORNIA BLACK OAK

Quercus kelloggii

Water Usage : Low

TREE SPECIES PHOTOS: PARKING LOTS



AFRICAN FERN PINE

Afrocarpus gracilior

Water Usage : Low



PEPPERMINT TREE

Agonis flexuosa

Water Usage : Low



PINK DAWN CHITALPA

Chitalpa tashkentensis 'Pink Dawn'

Water Usage : Low



AUSTRALIAN WILLOW

Geifera parviflora

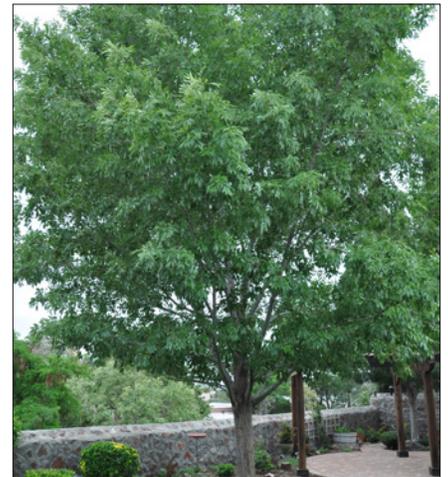
Water Usage : Low



CHINESE FLAME TREE

Koelreuteria bipinnata

Water Usage : Low



ARIZONA ASH

Fraxinus velutina

Water Usage : Low



PALO VERDE

Parkinsonia x 'Desert Museum'

Water Usage : Low



CORK OAK

Quercus suber

Water Usage : Low

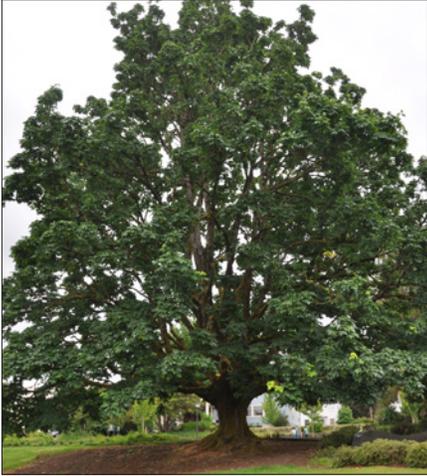


ENGELMANN OAK

Quercus engelmannii

Water Usage : Low

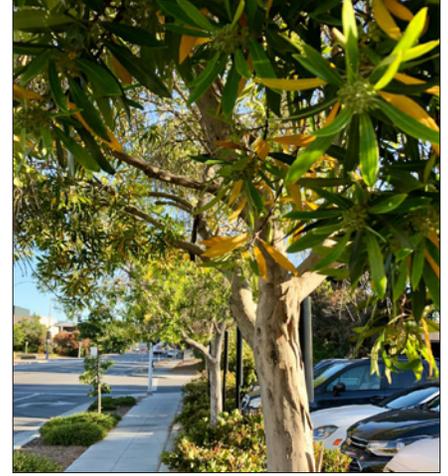
TREE SPECIES PHOTOS: BIORETENTION AND BIOSWALES



BIGLEAF MAPLE
Acer macrophyllum
Water Usage : Medium



WHITE ALDER
Alnus rhombifolia
Water Usage : Medium



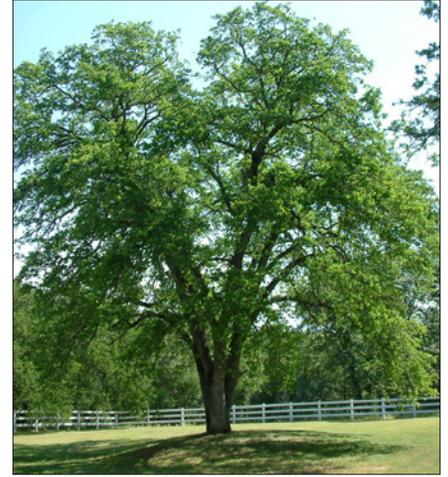
ELEGANT WATER GUM
Tristaniopsis laurina 'Elegant'
Water Usage : Low



ROBERTS CALIFORNIA SYCAMORE
Plantanus racemosa Roberts
Water Usage : Medium



BAY LAUREL
Laurus nobilis
Water Usage : Medium



VALLEY OAK
Quercus lobata
Water Usage : Low



WESTERN HACKBERRY
Celtis occidentalis
Water Usage : Medium

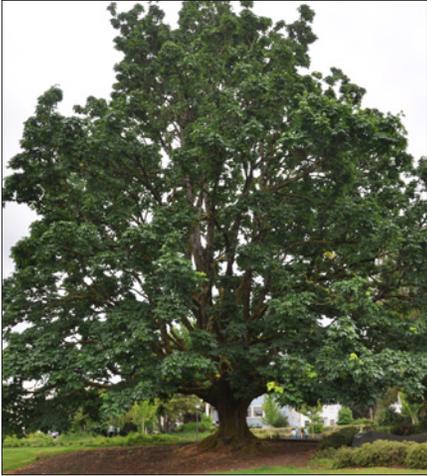


MARINA STRAWBERRY TREE
Arbutus x Marina
Water Usage : Low



CATALINA CHERRY
Prunus ilicifolia ssp. lyonii
Water Usage : Low

TREE SPECIES PHOTOS: RIPARIAN



BIGLEAF MAPLE
Acer macrophyllum
Water Usage : Medium



WESTERN REDBUD
Cercis occidentalis
Water Usage : Low



CALIFORNIA BUCKEYE
Aesculus californica
Water Usage : Low



CALIFORNIA SYCAMORE
Plantanus racemosa
Water Usage : Medium



CATALINA CHERRY
Prunus ilicifolia ssp. *lyonii*
Water Usage : Low



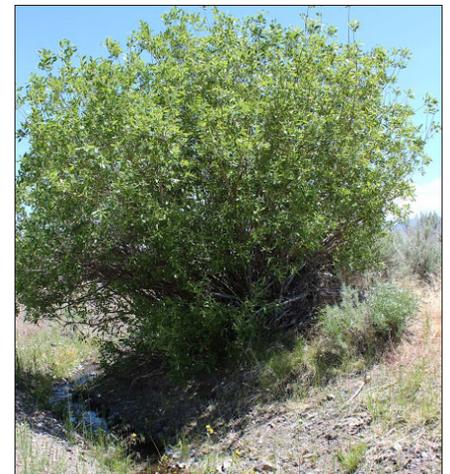
VALLEY OAK
Quercus lobata
Water Usage : Low



BLUE ELDERBERRY
Sambucus nigra ssp. *Caerulea*
Water Usage : Low



COAST LIVE OAK
Quercus agrifolia
Water Usage : Low



ARROYO WILLOW
Salix lasiolepis
Water Usage : Medium/High

TREE SPECIES PHOTOS: LANDSCAPE BUFFERS / SLOPES



CALIFORNIA BUCKEYE
Aesculus californica
Water Usage : Low



WESTERN REDBUD
Cercis occidentalis
Water Usage : Low



TECATE CYPRESS
Hesperocyparis forbesii
Water Usage : Low



SANTA CRUZ IRONWOOD
Lyonothamnus floribundus
Water Usage : Low



TORREY PINE
Pinus torreyana
Water Usage : Low



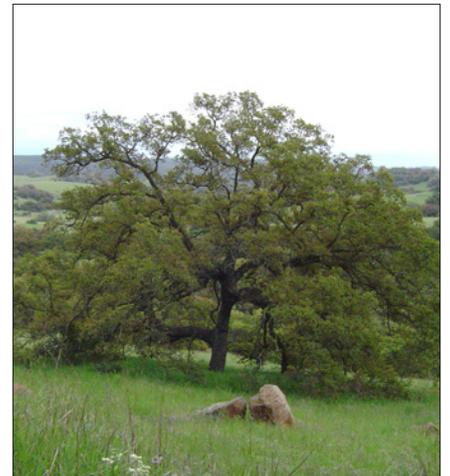
CATALINA CHERRY
Prunus ilicifolia ssp. lyonii
Water Usage : Low



COAST LIVE OAK
Quercus agrifolia
Water Usage : Low



CALIFORNIA BLACK OAK
Quercus kelloggii
Water Usage : Low



ENGELMANN OAK
Quercus engelmannii
Water Usage : Low

UNDERSTORY SPECIES PLANT LIST

The following plant list includes understory species recommended for use at TOD projects.

Basic species information is provided. Species have an X in the box for each Landscape Typology for which they are appropriate. California Native Species highlighted in yellow

* Water Use Information provided by WUCOLS for San Jose, from https://ucanr.edu/sites/WUCOLS/Plant_Search/

VL = very low water use L=low water use, M=moderate water use (use sparingly, highlighted in blue), H=high water use (not recommended)

** Salt Tolerance Information as available from varied sources.

H = highly tolerant, M = moderately tolerant, will typically show minimal symptoms, L= not tolerant/ sensitive, will exhibit symptoms

Latin Name	Common Name	Plant Type	Notes	Mature Size H' X W'	Sun / Shade	Evrgrn / Decid	WATER USE WUCOLS (San Jose)*	Salt Tolerance for RCW (H,M,L)**	Cali Native (Y/N)	Region of Origin (if not native to Cali)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Abutilon palmeri</i>	Indian Mallow	Perennial Sub-Shrub	Accent Shrub	3'-5' x3'-5'	Sun	E	L	M	Y						X				X	
<i>Acacia redolens</i>	Prostrate Acacia	Groundcover - Woody	Non-Native, but tolerates slopes and no irrigation, Desert Carpet is cultivar	2' x 10-12'	Sun	E	VL	H	N	Australia										
<i>Achillea millefolium</i>	White Yarrow	Perennial - herbaceous	Mix with grasses, cultivars Coronation Gold, Paprika, Sonoma Coast, MoonDust,	3' x 3'	Sun to Part-Shade	D	L	M	Y		X	X	X		X	X	X			X
<i>Acmispon glaber</i>	Deer Weed	Perennial Sub-Shrub	Pioneer species, nitrogen fixer	2-3' x 2-3'	Sun	E	VL	M	Y								X	X	X	X
<i>Aeonium spp.</i>	Aeonium	Succulent	Specialty Planters	up to 5' x 5'		E	L	M	N	South Africa				X	X					
<i>Agastache rupestris</i>	Licorice Mint	Perennial - herbaceous		3' x 1.5'	Sun to Part-Shade	D	L	M	N	Southwest US										
<i>Agave attenuata</i>	Agave	Succulent		5' x 8'	Sun	E	L	M	N	Mexico				X	X	X				
<i>Agave Blue Glow</i>	Blue Glow Century Plant	Succulent		2' x 3'	Sun	E	L	L	N	Mexico					X	X				
<i>Agave spp.</i>	Agave	Succulent	Many Agave species and cultivars are listed on SCVWD approved plant list and can be used as	varies	Sun	E	L	M	N	Mexico										
<i>Aloe spp.</i>	Aloe	Succulent	Many cultivars listed on SCVWD approved plant list and can be used as appropriate i.e. Aloe Vera, Aloe	avg. 3' x 3'	Sun to Part-Shade	E	L	M	N	South Africa			X		X					
<i>Anigozanthus spp.</i>	Kangaroo Paw	Perennial	many cultivars are listed on SCVWD approved plant list Height and color vary.	3' x 4'	Sun	E	L	M	N	Australia			X	X	X	X				
<i>Aquilegia formosa</i>	Columbine	Perennial	Shade only, protected planters	3' x 1.5'	Shade	D	L	M	Y				X		X					
<i>Arbutus unedo multi-stem</i>	Strawberry Madrone	Shrub - tall	Fruit	15' x 15'	Sun-Part Shade	E	L	M	N	Mediterranean						X				X
<i>Arctostaphylos 'Emerald Carpet'</i>	Emerald Carpet Manzanita	Groundcover - Woody	Carmel Sur' or A. uva ursi	1.3' x 6'	Sun to Part-Shade	E	L	M	Y		X				X	X				X
<i>Arctostaphylos 'Pacific Mist'</i>	Pacific Mist Manzanita	Groundcover - Woody		2' x 8'	Sun to Part-Shade	E	L	L	Y		X	X			X	X				X
<i>Arctostaphylos bakeri 'Louis Edmunds'</i>	Bakers Manzanita	Shrub - med		6' x 6'	Sun	E	L	L	Y											X
<i>Arctostaphylos densiflora</i>	Vine Hill manzanita	Shrub - med	Howard McMinn' or 'Sentinel'	3' x 6'	Sun-Part Shade	E	L	M	Y					X	X	X				X
<i>Arctostaphylos glauca</i>	Big Berry Manzanita	Shrub - tall		20' x 20'	Sun	E	L	M	Y											

UNDERSTORY SPECIES PLANT LIST

Latin Name	Common Name	Plant Type	Notes	Mature Size H' X W'	Sun / Shade	Evrgrn / Decid	WATER USE WUCOLS (San Jose)*	Salt Tolerance for RCW (H,M,L)**	Cali Native (Y/N)	Region of Origin (if not native to Cali)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Arctostaphylos hookeri</i>	Hooker Manzanita	Shrub - low		6' x 6'	Sun to Part-Shade	E	L	M	Y										X	
<i>Arctostaphylos John Dourley</i>	John Dourley Manzanita	John Dourley Manzanita	Shrub - Low, spreading, reddish leaves and bark.	2' x 6'	Sun	E	L	M	Y											
<i>Arctostaphylos manzanita</i>	Manzanita	Shrub - tall	Helena' / 'Austin Griffiths' well draining soil	20' x 10'	Sun	E	L	M	Y							X				
<i>Arctostaphylos pumila Wavelength'</i>	SandMat Manzanita	Shrub - med	Mounding shrub,	3' x 15'	Sun to Part-Shade	E	L	L	Y											
<i>Arctostaphylos refugioensis</i>	Refugio Manzanita	Shrub - med		13' x 7'	Sun	E	L	M	Y											
<i>Arctostaphylos stanfordiana</i>	Standford Manzanita	Shrub - med	Mounding shrub	7' x 6'	Sun	E	L	M	Y										X	
<i>Aristida purpurea</i>	Purple Three-awn	Grass	Can spread by seed, Warm Season	3' x 2'	Sun	D	L	M	Y											
<i>Aristolochia californica</i>	Dutchman's Pipe	Vine	Pipevine SwallowTail Host, Excellent climber up Gabions	20' x 20'	Shade	D	N/A	L/M	Y								X		X	
<i>Armeria maritima</i>	Sea Pink	Perennial		1' x 1'	Part Shade to Sun	E	M	L	N	Mediterranean		X	X	X		X				
<i>Artemisia californica</i>	Sagebrush Prostrate	Groundcover - Woody	brown if not irrigated (eg. Berryessa)	3-4' x 3-4'	Sun	E	L	L	Y						X					X
<i>Artemisia douglasiana</i>	Mugwort	Perennial	Will take over plantbed	3' x 3'	Sun to Part-Shade	D	L	M	Y											X
<i>Asclepias californica</i>	California Milkweed	Perennial	Habitat - Monarch	3' x 3'	Sun	D	L	H	Y											X
<i>Asclepias fascicularis</i>	Narrow leaf milkweed	Perennial	Habitat - Monarch	3' x 1'	Sun	D	L	M	Y										X	X
<i>Asclepias speciosa</i>	Showy Milkweed	Perennial	Habitat - Monarch	3' x 3'	Sun	D	L	M	Y											X
<i>Baccharis glutinosa</i>	Marsh Baccharis	Perennial	Salt Marsh Baccharis, only to be planted as part of Bioswale Mix	6' x 6'	Sun	E	M	M	Y											X
<i>Baccharis pilularis 'Twin Peaks'</i>	Dwarf Coyote Bush	Groundcover - Woody		3'x12'	Sun to Part-Shade	E	L	L	Y		x						x		x	x
<i>Baileya multiradiata</i>	Desert marigold	Perennial	Fall blooming yellow flowers	1.6' x 1'	Sun	D	L	M	Y											
<i>Berberis aquifolium var. repens</i>	Creeping Oregon Grape	Groundcover -Woody	Shade	2.5' x 5'	Shade to Part-Sun	D	L	M	Y					X		X			X	
<i>Berberis pinnata ssp. Insularis</i>	California Barberry	Shrub - med	Many cultivars have spiny leaves. Blonde Ambition' or straight species. Warm Season, Winter Dormant	10' x10'	Shade to Part-Sun	D	M	L	Y					X		X			X	
<i>Bouteloua gracilis</i>	Blue Gramma Grass	Grass	Mix with Native Grasses and In Bioswales	1.5' x 2'	Sun	D	L	H	Y		X	X	X	X	X	X	X			
<i>Brodiaea californica</i>	California Brodiaea	Bulb		1.5' - 2' x .5'	Sun	D	L	L	Y										X	
<i>Bromus carinatus</i>	California Brome	Grass		1-5' x 1-2'	S	D	L	L	Y											X
<i>Bulbine frutescens</i>	Bulbine	Succulent		1.5' x 3'	Sun to Part-Shade	E	L	M	N	South Africa	X	X			X					

UNDERSTORY SPECIES PLANT LIST

Latin Name	Common Name	Plant Type	Notes	Mature Size H' X W'	Sun / Shade	Evrgrn / Decid	WATER USE WUCOLS (San Jose)*	Salt Tolerance for RCW (H,M,L)**	Cali Native (Y/N)	Region of Origin (if not native to Cali)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Calamagrostis nutkaensis</i>	Reed Grass	Grass	Larger bunch grass, bottoms of bioswale basins	3' x 3'	Sun to Part-Shade	E	M	M	Y								X			X
<i>Calochortus luteus</i>	Golden Mariposa	Bulb	Specialty Planter under Oaks	1' x .5'	Shade to Part-Sun	D	L	H	Y							X			X	
<i>Calycanthus occidentalis</i>	Western Spice Bush	Shrub - med	Good for Bioswale Height	8' x 20'	Shade to Part-Sun	D	M	M	Y					X		X		X		X
<i>Calylophus drummondiana, berlandieri, Hartwegii</i>	Texas Primrose, Sierra Sundrop	Perennial	low groundcover massing	2' x 2'	Sun	D	L	M	N	Southwest US		X	X	X	X	X				
<i>Carex barbarae</i>	Santa Barbara Sedge	Grass		3' x 3'	Sun to Part-Shade	E	N/A	M	Y											X
<i>Carex nudata</i>	Torrent Sedge	Grass		2.5' x 2'	Sun to Part-Shade	E	N/A	H	Y											X
<i>Carex pansa</i>	Dune Sedge	Grass		1' x 3'	Sun to Shade	E	M	M	Y			X	X	X		X	X	X		X
<i>Carex praegracilis</i>	Meadow Sedge	Grass		2' x 3'	Sun to Shade	E	M	M	Y			X	X	X	X	X	X			X
<i>Carex spissa</i>	San Diego Sedge	Grass	Can get very large	4' x 4'	Sun to Part-Shade	E	M	M	Y											
<i>Carex tumulicola (C. divulsa)</i>	Dwarf Sedge	Grass	Clumping sedge, workes well for bioswale slopes Best in part shade. will have some yellow leaves year-round, but still healthy	1' x 1-2'	Shade to Part-Sun	E	L	M	Y					X		X	X	X		X
<i>Carpenteria californica</i>	Bush Anemone	Shrub - tall		8' x 5'	Shade to Part-Sun	E	M	M	Y					X		X				
<i>Ceanothus 'Ray Hartman'</i>	Ray Harmtan California Lilac	Shrub - tall		30' x 10'	Sun	E	L		Y							X			X	
<i>Ceanothus maritimus 'Valley Violet'</i>	Valley Violet Maritime Ceanothus	Shrub - low		3' x 5'	Sun to Part-Shade	E	L	M	Y			X	X		X	X	X		X	
<i>Ceanothus thyrsiflorus var. griseus</i>	Carmel Ceanothus	Shrub - med	mounding shrub	15' x 15'	Sun	E	L	M	Y								X		X	
<i>Ceanothus thysiflorus 'Variety TBD'</i>	California Lilac	Shrub - tall	Oregon Mist, Concha or other variety	15' x 15'	Sun	E	L	M	Y							X			X	
<i>Cercocarpus betuloides</i>	Mountain Mahogany	Shrub - tall	Needs well draining soil	20' x 12'	Sun	E	VL	M	Y							X			X	
<i>Chaenomeles speciosa</i>	Flowering Quince	Shrub -tall	Fruiting, Orange flowers in Jan/Feb	10' x 12'		D	L	L	N	Mediterranean						X	X		X	
<i>Chondropetalum elephantium</i>	Large Cape Rush	Grass		5' x 10'	Sun	E	L	L	N	South Africa				X		X	X			
<i>Chondropetalum tectorum</i>	Small Cape Rush	Grass		3' x 3'	Sun	E	L	M	N	South Africa				X		X	X			
<i>Cistus ladanifer</i>	Rockrose	Shrub - med - tall		6' x 5'	Sun	E	L	M	N	Mediterranean				X		X				
<i>Cistus salvifolius prostratus</i>	Sageleaf Rockrose	Groundcover		2' x 6'	Sun to Part-Shade	E	L	M	N	Mediterranean		X	X		X	X				
<i>Clarkia unguiculata</i>	Elegant Clarkia	Wildflower	Annual, C. rubicunda also appropriate	3' x 3'	Sun	D	N/A	M	Y										X	
<i>Clematis ligustifolia</i>	Clematis	Vine	Also C. armandii,	up to 30' x 6'	Sun to Part Shade	D	M	L	Y										X	

UNDERSTORY SPECIES PLANT LIST

Latin Name	Common Name	Plant Type	Notes	Mature Size H' X W'	Sun / Shade	Evrgrn / Decid	WATER USE WUCOLS (San Jose)*	Salt Tolerance for RCW (H,M,L)**	Cali Native (Y/N)	Region of Origin (if not native to Cali)	TYPLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Collinsia heterophylla</i>	Chinese Houses	Wildflower	Annual	1.6' x 4'	Shade	D	N/A	M	Y										X	
<i>Coreopsis grandiflora</i>	Coreopsis	Perennial		2' x 2'	Sun	D	M	L	Y							X				
<i>Corylus cornuta ssp. Californica</i>	Hazelnut	Shrub -tall	Small Tree	7'-7'	Shade	D	M	M	Y				X	X		X		X		
<i>Daphne x transatlantica</i>	Dapne	Shrub - med	Evergreen shrub with white flowers, droupt tolerant	3' x 3'	Sun to Part-Shade	E	L	M	N	Asia										
<i>Dasyliiron wheeleri</i>	Desert spook	Succulent		5' x 5'	Sun	E	L	M	N	Soutwest US					X	X				
<i>Dendromecon hardfordii</i>	Bush Poppy	Shrub - med		15' x 15'	Sun to Part-Shade	E	L	L	Y							X		X	X	
<i>Deschampsia cespitosa</i>	Tufted Hair Grass	Grass		3' x 3'	Sun	D	L	L	Y								X	X		X
<i>Dichelostemma capitatum</i>	Bluedicks	Bulb	Mix with Native Grasses and In Bioswales	1.5' - 2' x .5'	Sun	D	VL	M	Y											X
<i>Dietes iridoides</i>	Fortnight Lily	Perennial		2' x 3'	Sun to Part-Shade	E	L	M	N	South Africa		X	X	X			X			
<i>Diplacus aurantiacus</i>	Bush Monkey Flower	Perennial Sub-Shrub		4' x 3'	Sun to Part-Shade	E	L	M	Y										X	
<i>Dryopteris arguta</i>	Coastal Woodfern	Fern	Under Oaks	2' x 2'	Partial	E	M	L	Y											
<i>Echeveria spp.</i>	Hens and Chicks	Succulent	Specialty Planters	0.7' x 0.7'	Sun	E	L	M	N	South Africa				X	X					
<i>Elymus glaucus</i>	Blue Wildrye	Grass		5' x 1'	Sun to Part-Shade	D	N/A	M /H	Y										X	
<i>Elymus triticoides</i>	Creeping Wildrye	Grass	shorter leaves and typically does not flower.	4' x 1'	Sun	D	L	M /H	Y								X		X	X
<i>Encelia Californica</i>	California Bush Sunflower	Perennial Sub-Shrub		4x 5'	Sun to Part-Shade	D	L	M	Y							X		X		
<i>Epilobium canum</i>	California Fuchsia	Perennial	Also Epilobium californica	3' x 3'	Sun to Part-Shade	D	L	M	Y						X	X			X	
<i>Ericameria ericoides</i>		Perennial Sub-Shrub		3' x 4'	Sun	D	L	M /H	Y										X	
<i>Erigeron glaucus 'Wayne Roderick'</i>	Wayne Roderick Daisy	Perennial - herbaceous		0.5' x 0.7'	Sun to Part-Shade	E	L	M	Y											X
<i>Erigeron karvinskianus</i>	Santa Barbara Daisy	Perennial - herbaceous		1-2' x 3-5'	Shade to Part-Sun	E	L	M	Y		X	X	X		X	X				X
<i>Eriogonum fasciculatum</i>	California Buckwheat	Perennial Sub-Shrub		6' x 3'	Mon	E	VL	M	Y										X	
<i>Eriogonum giganteum</i>	Saint Catherine's Lace	Perennial Sub-Shrub		5' x 10'	Tue	E	L	M	Y										X	
<i>Eriogonum grande var. rubescens</i>	Red-Flowered Buckwheat	Perennial Sub-Shrub		1.5' x 3'	Wed	E	L	M	Y		X									
<i>Eriogonum latifolium</i>	Coast Buckwheat	Perennial Sub-Shrub		3' x 3'	Thu	E	L	M	Y										X	
<i>Eriogonum nudum</i>	Naked Buckwheat	Perennial Sub-Shrub		1' x 0.6'	Fri	E	L	M	Y		X				X	X	X			

UNDERSTORY SPECIES PLANT LIST

Latin Name	Common Name	Plant Type	Notes	Mature Size H' X W'	Sun / Shade	Evrgrn / Decid	WATER USE WUCOLS (San Jose)*	Salt Tolerance for RCW (H,M,L)**	Cali Native (Y/N)	Region of Origin (if not native to Cali)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Eriogonum umbellatum</i>	Sulfur Buckwheat	Perennial Sub-Shrub		2' x 1'	Sat	E	L	M	Y			X				X	X	X	X	
<i>Escholzia californica</i>	California Poppy	Wildflower	Annual	1' x 1'	Sun	D	VL	M	Y								X		X	X
<i>Euthamia occidentalis</i>	Western Goldentop	Perennial - herbaceous	Salt tolerant	2-5' x 2-6'	Sun	D	N/A	H	Y									X	X	X
<i>Fallugia paradoxa</i>	Apache Plume	Perennial Sub-Shrub		4' x 4'	Sun	D	L	H	Y							X			X	
<i>Feijoa sellowiana</i>	Pinapple Guava	Shrub - tall		15' x 15'	Sun	E	N/A	M	N	Mediterranean					X	X				
<i>Festuca californica</i>	California Fescue	Grass	Salt tolerant	3' x 2'	Sun to Shade	D	L	M	Y										X	
<i>Festuca idahoensis</i> 'Tomales Bay' (Elijah Blue)	Fescue Bunchgrass	Grass		1.5' x 1.5'	Part Shade to Sun	D	VL	M	Y		X	X	X	X	X					
<i>Festuca rubra</i>	Red Fescue	Grass		0.5' x 2'	Part Shade to Sun	D	L	L	Y										X	X
<i>Ficus pumila</i>	Creeping Fig	Vine	sparingly as screen plant where needed.	15' x 6'	Sun	E	M	M	N	Asia										
<i>Fragaria chiloensis</i>	Beach Strawberry	Groundcover - Herbaceous		1' x 3'	Sun to Shade	E	M	M	Y										X	
<i>Fragaria vesca</i>	Mountain Strawberry	Groundcover - Herbaceous		0.8' x 1.5'	Shade to Part-Sun	E	M	M	Y										X	
<i>Fremontodendron californica</i>	Flannel Bush	Shrub - tall		20' x 20'	Sun	D	VL	M/H	Y							X		X	X	
<i>Gaillardia grandiflora</i>	Blanket Flower	Perennial - herbaceous		2' x 1.2'	Sun	E	L	M/H	N	Texas	X									
<i>Garrya elliptica</i>	Evie Silk Tassel Bush	Shrub - tall	'Evie', Garrya fremontii is another native species	10' x 10'	Sun	E	L	M	Y										X	
<i>Gaura lindheimeri</i>	Gaura	Perennial - herbaceous		2' x 2'	Sun	D	M	M	N	Mediterranean		X			X	X				
<i>Geranium sanguineum</i>	Cranesbill	Groundcover		1' x 2'	Shade	D	M	L	N	Mediterranean			X		X					
<i>Gilia capita</i>	Gumplant	Wildflower	Annual	2' x 2'	Sun	D	L	M	Y										X	
<i>Grevelia 'Moonlight' or other variety</i>		Shrub - med		12' x 8'	Sun to Part-Shade	E	L	M/H	N	Australia		X			X	X				
<i>Grindelia stricta platyphylla</i>	Coastal Gum Plant	Perennial - herbaceous	Salt tolerant	2' x 4'	Sun	D	L	H	Y										X	X
<i>Helianthemum nummularium</i> 'Henfield Brilliant'	Sunrose	Grouncover		0.7' x 2'	Part Shade to Sun	E	L	H	N	Mediterranean		X	X							
<i>Helianthus californicus</i>	California Sunflower	Wildflower	Salt tolerant	5' x 10'	Sun	D	L	M	Y						X				X	
<i>Helictotrichon sempervirens</i>	Blue Oat Grass	Grass		2' x 3'	Sun	D	L	M	Y										X	X
<i>Hesperaloe pavifolia</i>	Red Yucca	grass		4' x 6'	Sun	E	L	M/H	Y						X	X	X			
<i>Hesperoyucca whipplei</i>	Chaparral Yucca	Succulent		9' x 9'	Sun	E	L	M/H	N	South Africa					X	X			X	

UNDERSTORY SPECIES PLANT LIST

Latin Name	Common Name	Plant Type	Notes	Mature Size H' X W'	Sun / Shade	Evrgrn / Decid	WATER USE WUCOLS (San Jose)*	Salt Tolerance for RCW (H,M,L)**	Cali Native (Y/N)	Region of Origin (if not native to Cali)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Heteromeles arbutifolia</i>	Toyon	Shrub - tall		10' x 8'	Sun to Part-Shade	E	L	M	Y							X		X	X	
<i>Heuchera maxima</i>	Island Alumroot	Perennial		3' x 2'	Shade to Part-Sun	E	M	L	Y				X	X	X				X	
<i>Heuchera micrantha</i>	Crevice Alumroot	Perennial - herbaceous		1-3' x 1'	Shade	E	M	L	Y											
<i>Holodiscus discolor</i>	Creambush	Shrub - med		9' x 6'	Shade	E	L	M	Y							X			X	
<i>Hordeum brachyantherum</i>	Meadow Barley	Grass		2' x 1'	Sun to Part-Shade	D	N/A	M	Y											X
<i>Iris 'Canyon Snow'</i>	Canyon Snow Pacific Iris	Perennial		1.5' x 3'	Shade to Part-Sun	E	L	L	Y			X	X	X		X				
<i>Iris douglasiana</i>	Douglas Iris	Perennial		2' x 4'	Shade to Part-Sun	E	L	L	Y											X
<i>Ixia spp.</i>	African Corn Lily	Bulb		1' x 1'	Sun to Part Shade	D	N/A	M	N	South Africa		X	X	X	X					
<i>Jasmine nudiflorum</i>	Winter Jasmine	Vine		12' x 4'	Sun to Part Shade	D	L	L	N	Asia				X	X	X				
<i>Jasmine officiale f. grandiflorum</i>	Common Jasmine	Vine		4' x 7'	Sun to Part Shade	D	L	L	N	Asia				X		X				
<i>Juncus effusus</i>	Green Rush	Grass		4' x 1.5'	Sun	E	M	M	Y											X
<i>Juncus patens</i>	Common Rush	Grass		3' x 2'	Sun	E	L	M	Y											X
<i>Keckiella cordifolia</i>	Red Hot Pokers	Shrub - low	Under Oaks	6' x 6'	Shade	D	L	M	Y							X			X	
<i>Kniphofia uvaria hybrids</i>	Red Hot Poker	Succulent	Prefers some fog	3' x 3'	Sun to Part Shade	E	L	M/H	N	South Africa				X	X	X				
<i>Lavandula spp. 'Goodwin Creek Grey'</i>	Lavender	Perennial Sub-Shrub		3' x 4'	Sun to Part-Shade	E	L	M	N	Mediterranean			X		X	X				
<i>Lavandula stoechas 'Otto Quast'</i>	Spanish Lavender	Perennial Sub-Shrub		3' x 3'	Sun to Part-Shade	E	L	M	N	Mediterranean			X		X	X				
<i>Lavatera maritima</i>	Bush Mallow	Perennial Sub-Shrub		8' x 12'	Sun to Part-Shade	D	L	M/H	Y											X
<i>Lepechinia calycina</i>	Pitcher Sage	Perennial Sub-Shrub		8' x 6'	Shade	D	L	L	Y					X	X	X				
<i>Lessingia felaginifolia</i>	California Dune Aster	Groundcover/Annual		0.3' x 8'	Sun to Part-Shade	E	L	M	Y							X			X	
<i>Leucojum aestivum</i>	Summer Snowflake	Bulb	Can add to streetscapes to enhance diversity	1.5' - 2' x .5'	Sun	D	M	L	N	Mediterranean			X	X		X				
<i>Leymus condensatus 'Canyon Prince'</i>	Canyon Prince Wild Rye	Groundcover		4' x 4'	Sun to Part-Shade	E	L	M/H	Y								X		X	X
<i>Limonium perezii</i>	Statice	Perennial		3' x 3'	Sun to Part-Shade	E	L	M/H	N	Mediterranean		X	X	X						
<i>Lonicera hispidula</i>	California Honeysuckle	Vine		18' x 10'	Sun to Part Shade	D	L	M	Y					X		X		X	X	
<i>Lupinus albifrons</i>	Silver Bush Lupine	Perennial Sub-Shrub		2' x 5'	Sun	D	VL	M	Y							X			X	

UNDERSTORY SPECIES PLANT LIST

Latin Name	Common Name	Plant Type	Notes	Mature Size H' X W'	Sun / Shade	Evrgrn / Decid	WATER USE WUCOLS (San Jose)*	Salt Tolerance for RCW (H,M,L)**	Cali Native (Y/N)	Region of Origin (if not native to Cali)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Malacothamnus fasciculatus</i>	Bush Mallow	Perennial Sub-Shrub		15' x 10'	Sun	E	VL	M	Y						X	X			X	
<i>Melaleuca armillaris</i>	Bracelet Honey-Myrtle	Shrub - tall		15-30' x 15-30'	Sun	E	VL	M/H	N	Australia						X				
<i>Melaleuca decussata</i>	Totem Poles	Shrub - tall		8-2'-x 8-20'	Sun	E	VL	M/H	N	Australia						X				
<i>Melica imperfecta</i>	Coast Range Onion Grass	Grass		1-3' x 2-3'	Sun	D	VL	M	Y									X	X	X
<i>Monardella villosa</i>	Coyote Mint	Perennial		1.5' x 3'	Sun to Shade	D	VL	M	Y									X		
<i>Muhlenbergia capillaris</i>	Pink Muhly Grass	Grass		4' x 3'	Sun	E	L	M	N	Eastern US										X
<i>Muhlenbergia dubia</i>	Pine Muhly Grass	Grass		3' x 4'	Sun	E	L	M	N	Southwest US		X	X			X	X		X	X
<i>Muhlenbergia rigens</i>	Deergrass	Grass		4-5' x 4-6'	Sun	E	L	M	Y						X	X	X			X
<i>Myoporum parvifolium</i>	Myoporum	Groundcover/Shurb		1' x 10'	Sun	E	L	M	N	Australia										
<i>Myrtus communis compacta</i>	Dwarf Myrtle	Shrub - med	hedge	2-4' x 2-4'	Sun	E	L	M	N	Australia				X	X		X			
<i>Nolina microcarpa</i>	Bear Grass	Grass	Also N. nelsonii	5' x 7'	Sun	E	VL	M/H	Y											
<i>Olea europea 'Little Ollie'</i>	Dwarf Olive	Shrub - Med		6' x 6'	Sun to Part-Shade	E	VL	M	N	Mediterranean				X	X	X	X			
<i>Origanum dictamnus and other species</i>	Oreganos	Perennial/Annual		1' x 3'	Part Shade to Sun	E	M	L	N	Mediterranean			X							
<i>Oxalis oregana</i>	Redwood Sorrel	Groundcover		1.3' x 6'	Shade	D	M	L	Y							X				
<i>Parthenocissus tricuspidata</i>	Virginia Creeper	Vine	Can use P. vitaveae or P. henryaba as well	up to 50' x 10'	Sun to Part Shade	D	L	M	N	North America				X						
<i>Penstemon centranthifolius</i>	Scarlet Bugler	Perennial		3' x 2'	Sun	D	N/A	M	Y											X
<i>Penstemon heterophyllus 'Blue Springs'</i>	Foothill Penstemon	Perennial		2' x 1.5'	Sun	D	N/A	M	Y				X		X	X	X		X	
<i>Phacelia californica</i>	Scorpion Flower	Wildflower	Slopes and Under Oaks, Good Habitat	1' x 1.5'	Sun to Part Shade	D	L	M	Y										X	
<i>Phlomis lanata</i>	Jerusalem Sage	Perennial Sub-Shrub		2' x 6'	Sun	E	L	M	N	Mediterranean			X	X	X	X				
<i>Phormium tenax</i>	New Zealand Flax	Perennial	?	2' x 3'	Sun	E	L	M/H	N	New Zealand				X		X	X			
<i>Phylla nodiflora</i>	Lippia	Groundcover - herbaceous		0.4' x 2'	Sun to Part-Shade	E	N/A	M	N	Mediterranean							X			
<i>Physocarpus capitatus</i>	Ninebark	Shrub - tall		13' x 7'	Shade to Part-Sun	D	L	L	Y										X	
<i>Podocarpus henkelii</i>	Long Leafed Yellowwood	Shrub - tall		30' x 25'	Sun to Part-Shade	E	M	L	N	Asia				X	X	X				
<i>Polypodium californicum</i>	Polypody Fern	Fern	Under Oaks, P. scouleri is also good species	1' x 1'	Shade to Part-Sun	E	VL	L	Y					X					X	

UNDERSTORY SPECIES PLANT LIST

Latin Name	Common Name	Plant Type	Notes	Mature Size H' X W'	Sun / Shade	Evrgrn / Decid	WATER USE WUCOLS (San Jose)*	Salt Tolerance for RCW (H,M,L)**	Cali Native (Y/N)	Region of Origin (if not native to Cali)	TYPOLOGIES	MAJOR STREETSCAPE	MINOR STREETSCAPE	PASEOS	PLAZAS	PASSIVE GREEN SPACE	PARKING LOT	RIPARIAN	SLOPE - BUFFER	BIORETENTION
<i>Polystichum munitum</i>	Western Sword Fern	Fern	Under Oaks	2' x 2'	Shade	E	M	L	Y					X	X	X				
<i>Prunus ilicifolia</i>	Holly Leaf Cherry	Shrub-tall		30' x 25'	Sun to Part-Shade	E	L	L	Y											
<i>Quercus berberidifolia</i>	Scrub Oak	Shrub - tall	Available at native plant nurseries, plant small	15' x 12'	Sun to Part-Shade	E	VL	M	Y									X	X	
<i>Quercus durata</i>	Leather Oak	Shrub - tall	Available at native plant nurseries, plant small	9' x 6'	Sun to Part-Shade	E	VL	M	Y									X	X	
<i>Ranunculus californicus</i>	California Buttercup	Herbaceous	Small, Can be added to Carex's in Bioswales	3' x 3'	Sun to Part-Shade	D	VL	M	Y											X
<i>Rhamnus californica</i>	Coffeeberry	Shrub - med - tall	Eve Case', Mound San Bruno, Leather leaf,	3-6' x 3-65'	Sun to Part-Shade	E	L	M	Y					X		X	X	X	X	
<i>Rhus integrifolia (ovata)</i>	Lemonadeberry	Shrub - tall		25' x 25'	Sun	E	L	M	Y								X		X	
<i>Ribes aureum</i>	Golden Currant	Shrub - tall		3.5' x 3.5'	Shade	D	N/A	L	Y							X		X	X	
<i>Ribes malvaceum</i>	Chaparral Currant	Shrub - tall		6' x 6'	Shade	D	VL	L	Y							X		X	X	
<i>Ribes sanguineum glutinosum</i>	Pink -Flowered Currant	Shrub - tall upright	moderate maintenance	12' x 12'	Sun to Part-Shade	D	L	L	Y					X		X		X	X	
<i>Ribes viburnifolium</i>	Evergreen Currant	Shrub - low		4' x 6'	Shade to Part-Sun	E	L	M	Y				X	X		X				X
<i>Rosa californica</i>	California Wild Rose	Shrub	Spreads !	3' x 9'	Sun to Part-Shade	E	L	M	Y									X	X	
<i>Rosemarinus officinalis 'Huntington's Carpet'</i>	Creeping Rosemary	Groundcover - Woody	Mediterranean, Drought Tolerant, Low Maintenance	1.5' x 1.5'	Sun to Part-Shade	E	L	M	N	Mediterranean		X	X			X	X		X	
<i>Rosmarinus officinalis 'Tuscan Blue'</i>	Rosemary	Shrub - med	Count	4' x 2'	Sun to Part-Shade	E	L	M	N	Mediterranean			X			X	X		X	
<i>Rubus parviflorus</i>	Thimbleberry	Vine - Shrub	Can be invasive	8' x 6'	Sun to Part Shade	D	L	M	Y											X
<i>Salvia apiana</i>	White Sage	Perennial Sub-Shrub		4.5' x 4.5'	Sun	D	VL	M	Y							X				X
<i>Salvia clevelandii</i>	Cleveland Sage	Perennial Sub-Shrub		4.5' x 4.5'	Sun to Part-Shade	E	L	M	Y							X	X			
<i>Salvia greggii</i>	Autumn Sage	Perennial Sub-Shrub		3' x 3'	Sun to Part-Shade	E	L	M/H	N	Mexico			X	X	X					
<i>Salvia leucophylla 'Bee's Bliss'</i>	Bee's Bliss Sage	Groundcover Shrub		2' x 8'	Sun	E	L	M	Y			X					X		X	
<i>Salvia spathacea</i>	Hummingbird Sage	Groundcover Perennial		2' x 5'	Shade to Part-Sun	E	L	M	Y				X	X		X				X
<i>Santolina chamaecyparissus</i>	Dwarf Lavender Cotton	Perennial - herbaceous		2' x 4'	Sun	E	L	H	N	Mediterranean		X								
<i>Satureja douglasii</i>	Yerba Buena	Perennial		0.5' x 0.5'	Shade to Part-Sun	E	L	M	Y											X
<i>Scrophularia californica</i>	Bee Plant	Perennial Sub-Shrub		4' x 12'	Partial	D	L	L	Y											X
<i>Sedum spp.</i>	Stonecrop	Groundcover Succulent - spreading		up to 3' x 3'	Sun to Part-Shade	E	L	M	N	Mediterranean										

UNDERSTORY SPECIES PHOTOS: MAJOR STREETS

SHRUBS



VALLEY VIOLET MARITIME
CEANOTHUS
Ceanothus maritimus 'Valley Violet'



EMERALD CARPET
MANZANITA
Arctostaphylos
'Emerald Carpet'



PACIFIC MIST MANZANITA
Arctostaphylos
'Pacific Mist'



DWARF COYOTE BUSH
Baccharis pilularis
'Twin Peaks'



SAGELEAF ROCKROSE
Cistus salvifolius prostratus

GRASSES



MOOR GRASS
Sesleria autumnalis



DUNE SEDGE
Carex pansa



MEADOW SEDGE
Carex praegracilis



PINE MUHLY GRASS
Muhlenbergia dubia



Elijah Blue Fescue
Festuca glauca 'Elijah Blue'

FLOWERING PERENNIALS



WHITE YARROW
Achillea millefolium



FORTNIGHT LILY
Dietes iridoides



NAKED BUCKWHEAT
Eriogonum nudum



RED-FLOWERED
BUCKWHEAT
Eriogonum grande
var. *rubescens*



Wall Germander
Teucrium chamaedrys

FLOWERING PERENNIALS



BLANKET FLOWER
Gaillardia grandiflora



STALKED BULBINE
Bulbine frutescens



DWARF LAVENDER COTTON
Santolina chamaecyparissus



CREeping SAGE
Salvia leucophylla
'Bee's Bliss'



BLUE-EYED GRASS
Syrinchium bellum

UNDERSTORY SPECIES PHOTOS: MINOR STREETS

LOW SHRUBS/GROUNDCOVERS



EVERGREEN CURRANT
Ribes Viburnifolium



PACIFIC MIST MANZANITA
Arctostaphylos
'Pacific Mist'



VALLEY VIOLET MARITIME
CEANOTHUS
Ceanothus maritimus 'Valley
Violet'



TRAILING ROSEMARY
Rosmarinus officinalis



COYOTE BUSH
Baccharis pilularis 'Pigeon
Point'

GRASSES



MOOR GRASS
Sesleria autumnalis



DUNE SEDGE
Carex pansa



MEADOW SEDGE
Carex praegracilis



PINE MUHLY GRASS
Muhlenbergia dubia



Elijah Blue Fescue
Festuca glauca 'Elijah Blue'

FLOWERING PERENNIALS



WHITE YARROW
Achillea millefolium



FOOTHILL PENSTEMON
Penstemon heterophyllus
'Blue Springs'



SANTA BARBARA DAISY
Erigeron karvinskianus



SEA PINK
Armeria maritima



HUMMINGBIRD SAGE
Salvia spathacea

HERBACEOUS GROUNDCOVERS



BUGLEHERB
Ajuga reptans



CREeping SAGE
Salvia sonomensis



WILD STRAWBERRY
Fragaria vesca

UNDERSTORY SPECIES PHOTOS: PASEO

SHRUBS



PINK -FLOWERED CURRANT
Ribes sanguineum glutinosum



EVERGREEN CURRANT
Ribes Viburnifolium



DWARF OLIVE
Olea europea 'Little Ollie'



LONG LEAFED YELLOWWOOD
Podocarpus henkelii



BUSH ANEMONE
Carpenteria californica

GRASSES, FERNS & VINES



MEADOW SEDGE
Carex praegracilis



DWARF SEDGE
Carex tumulicola (C. divulsa)



WHITE YARROW
Achillea millefolium



POLYPODY FERN
Polypodium californicum



JASMINE
Jasmine officiale f. grandiflorum

FLOWERING PERENNIALS



Hummingbird Sage
Salvia spathacea



CREeping OREGON GRAPE
Berberis aquifolium var. repens



JAPANESE ANEMONE
Anemone japonica



Canyon Snow Pacific Iris
Iris douglasiana x 'Canyon Snow'



ROCKROSE
Cistus ladanifer

FLOWERING PERENNIALS



ISLAND ALUMROOT
Heuchera maxima



COLUMBINE
Aquilegia formosa



SEA PINK
Armeria maritima



ROCK PURSLANE
Calandrinia Spp.



CRANESBILL
Geranium sanguineum

UNDERSTORY SPECIES PHOTOS: PLAZA

SHRUBS



VALLEY VIOLET
MARITIME CEANOTHUS
Ceanothus maritimus
'Valley Violet'



DWARF OLIVE
Olea europea 'Little
Ollie'



LONG LEAFED YELLOWWOOD
Podocarpus
henkelii

GRASSES



MEADOW SEDGE
Carex praegracilis



MOOR GRASS
Sesleria autumnalis



AEONIUM
Aeonium spp.



HENS AND CHICKS
Echeveria spp.

FLOWERING PERENNIALS



ALBUCA HUMILIS
Albica humilis



KANGAROO PAW
Anigozanthus spp.



BULBINE
Bulbine frutescens



ROCK PURSLANE
Calandrinia Spp.

FLOWERING PERENNIALS



FOOTHILL PENSTEMON
Penstemon hetero-
phyllus 'Blue Springs'



COAST ROSEMARY
Westringia fruticosa



WOOLLY BLUE CURLS
Trichostema lanatum



DE LA MINA LILAC
Verbena lilacina 'De La Mina'

UNDERSTORY SPECIES PHOTOS: PASSIVE GREEN SPACE

SHRUBS



RAY HARTMAN CALIFORNIA LILAC
Ceanothus 'Ray Hartman'



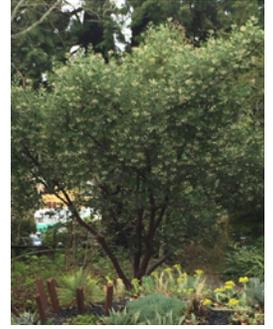
CALIFORNIA LILAC
Ceanothus thrysiflorus



TOYON
Heteromeles arbutifolia



WESTERN SPICE BUSH
Calycanthus occidentalis



ST HELENA MANZANITA
Arctostaphylos manzanita 'St Helena'

GRASSES



DWARF SEDGE
Carex tumulicola (C. divulsa)



DUNE SEDGE
Carex pansa



FEATHER REED GRASS
Calamagrostis x acutifolia 'Karl Foerster'



PINE MUHLY GRASS
Muhlenbergia dubia



DEERGRASS
Muhlenbergia rigens

FLOWERING PERENNIALS



CREeping OREGON GRAPE
Berberis aquifolium var. repens



CALIFORNIA BARBERRY
Berberis pinnata ssp. Insularis



FINGE CUPS
Tellima grandiflora



WALL GERMANDER
Tiarella cordifolia



SEA PINK
Armeria maritima

FLOWERING PERENNIALS



COREOPSIS
Coreopsis grandiflora



CALIFORNIA BUSH SUNFLOWER
Encelia Californica



APACHE PLUME
Fallugia paradoxa



WINNIFRED GILMAN CLEVELAND SAGE
Salvia clevelandii 'Winnifred Gilman'



HUMMINGBIRD SAGE
Salvia spathacea

UNDERSTORY SPECIES PHOTOS: PARKING LOTS

TALL SHRUBS



VALLEY VIOLET MARITIME
CEANOTHUS
Ceanothus maritimus
'Valley Violet'



EVE CASE COFFEEBERRY
Rhamnus californica
'Eve Case'



DWARF OLIVE
Olea europea 'Little
Ollie'



VINE HILL MANZANITA
Arctostaphylos
densiflora 'Howard
McMinn'

GROUNDCOVER SHRUBS



EMERALD CARPET
MANZANITA
Arctostaphylos
'Emerald Carpet'



PACIFIC MIST MANZANITA
Arctostaphylos 'Pacific Mist'



WARRIOR LYTLE
CALIFORNIA BACKWHEAT
Eriogonum fasciculatum
'Warriner Lytle'



POINT REYES CEANOTHUS
Ceanothus gloriosus

GRASSES



PINE MUHLY
Muhlenbergia dubia



DEERGRASS
Muhlenbergia rigens



MOOR GRASS
Sesleria autumnalis



TUFTED HAIR GRASS
Deschampsia cespitosa



DUNE SEDGE
Carex pansa

FLOWERING PERENNIALS



LIPPIA
Phylla nodiflora



SANTA BARBARA DAISY
Erigeron karvinski-
anus



WINNIFRED GILMAN
CLEVELAND SAGE
Salvia clevelandii
'Winnifred Gilman'



WOOLLY BLUE CURLS
Trichostema lanatum



WHITE YARROW
Achillea millefolium

UNDERSTORY SPECIES PHOTOS: BIORETENTION AND BIOSWALES

SHRUBS



DWARF COYOTE BUSH
Baccharis pilularis
'Twin Peaks'



WESTERN SPICE BUSH
Calycanthus occidentalis

GRASSES



BERKELEY SEDGE
Carex tumulicola



DEER GRASS
Muhlenbergia rigens



REED GRASS
Calamagrostis nutkaensis



DUNE SEDGE
Carex pansa



GREEN RUSH
Juncus effusus

FLOWERING PERENNIALS



WESTERN GOLDENTOP
Euthamia occidentalis



WHITE YARROW
Achillea millefolium



GUM WEED
Grindelia camporum



CALIFORNIA MILKWEED
Calochortus luteus



SHOWY MILKWEED
Asclepias speciosa

FLOWERING PERENNIALS



TALL FLATSEDGE
Cyperus ergagrostis



DOUGLAS IRIS
Iris douglasiana



SCARLET MONKEYFLOWER
Mimulus cardinalis



BLUEDICKS
*Dichelostemma capi-
tatum*



WAYNE RODERICK DAISY
Erigeron glaucus 'Wayne
Roderick'

UNDERSTORY SPECIES PHOTOS: RIPARIAN

SHRUBS



TOYON
Heteromeles arbutifolia



CALIFORNIA WILD ROSE
Rosa californica



CALIFORNIA COFFEEBERRY
Rhamnus californica



PINK-FLOWERED CURRANT
Ribes sanguineum glutinosum

GRASSES



TUFTED HAIR GRASS
Deschampsia cespitosa



DUNE SEDGE
Carex pansa



DWARF SEDGE
Carex tumulicola (C. divulsa)



DEERGRASS
Muhlenbergia rigens

FLOWERING PERENNIALS



COYOTE MINT
Monardella villosa



WHITE YARROW
Achillea millefolium



DEER WEED
Acmispon glaber



CALIFORNIA GOLDENROD
Solidago californica

FLOWERING PERENNIALS



CALIFORNIA BUSH
SUNFLOWER
Encelia Californica



NAKED BUCKWHEAT
Eriogonum nudum



SULFUR BUCKWHEAT
Eriogonum umbellatum



WESTERN GOLDENTOP
Euthamia occidentalis

UNDERSTORY SPECIES PHOTOS: LANDSCAPE BUFFER / SLOPES

SHRUBS



HOOKER MANZANITA
Arctostaphylos hookeri



PACIFIC MIST MANZANITA
Arctostaphylos 'Pacific Mist'



BAKERS MANZANITA
Arctostaphylos bakeri 'Louis Edmunds'



RAY HARTMAN CALIFORNIA LILAC
Ceanothus 'Ray Hartman'



CALIFORNIA LILAC
Ceanothus thyrsiflorus

GRASSES



PURPLE NEEDLE GRASS
Stipa pulchra



ALKALI SACATON
Sporobolus airoides



CANYON PRINCE WILDRYE
Leymus condensatus 'Canyon Prince'



PINE MUHLY GRASS
Muhlenbergia dubia



CREEPING WILDRYE
Elymus triticoides

FLOWERING PERENNIALS



CALIFORNIA BARBERRY
Berberis pinnata ssp. Insularis



WESTERN GOLDENTOP
Euthamia occidentalis



CREEPING OREGON GRAPE
Mahonia repens



STICKY MONKEY FLOWER
Mimulus auranticus



INDIAN MALLOW
Abutilon palmeri

FLOWERING PERENNIALS



TRAILING ROSEMARY
Rosmarinus officinalis



FOOTHILL PENSTEMON
Penstemon heterophyllus 'Blue Springs'



CREEPING SAGE
Salvia leucophylla 'Bee's Bliss'



HUMMINGBIRD SAGE
Salvia spathacea



Valley Violet *Ceanothus maritimus 'Valley Violet'*



REFERENCES

- Canopy. (2020) Canopy Tree library. <https://canopy.org/tree-info/canopy-tree-library/>
- CASQA. Planting Inundation Zones. (July 31, 2017).
- City of San Jose. (2020). San Jose Community Forest Management Plan. <https://sanjosecfmp.com/Designs>, Susan Brown. Salinity Management, www.salinitymanagement.org/.
- WateReuse Foundation. (October 1, 2007). Salinity Management Guide. <http://salinitymanagement.com/Salinity%20Management%20Guide/index.html>
- Hagerty, S.; Spotswood, E.; McKnight, K.; Grossinger, R. M. (2019). Urban Ecological Planning Guide for Santa Clara Valley. SFEI Contribution No. 941. San Francisco Estuary Institute: Richmond, CA.
- H. T. Harvey & Associates. (February, 2018). Integrating Nature into the Urban Landscape A Design Guide. <https://www.harveyecology.com/sites/default/files/UrbanDesignGuide.pdf>
- H. T. Harvey & Associates (24 July 2015) Plant Palette Recommendations for the North Bayshore Precise Plan Project # 3640-01. Prepared for: The City of Mountain View.
- Our City Forest. (2020) Our City Forest Planting the Future. www.ourcityforest.org/.
- Santa Clara Valley Transportation Authority, Sustainable Landscape Policy. Document Number 340.003, Version 2, Date 09/26/2018
- Santa Clara Valley Transportation Authority, Green Building Policy. Document Number 400.004, Version 1, Date 08/07/2018
- Santa Clara Valley Water District. (2020). Landscape Rebate Program Qualifying Plant List. https://scvwd.dropletportal.com/public/pdf/plant_list/full/.
- Santa Clara Valley Urban Run-off Pollution Prevention Program (2016) Stormwater Design Criteria Manual 016_Appendix_D - Plant List and Recommendations for Stormwater Management Areas.
- San Francisco Estuary Institute-Aquatic Science Center, 2017. Re-Oaking Silicon Valley: Building Vibrant Cities with Nature. Publication # 825, San Francisco Estuary Institute, Richmond, CA. Version 1.1, August 2017. Report is available at <http://resilientsv.sfei.org/>
- Trees of Stanford and Environs Ronald N. Bracewell ; with a foreword by Donald Kennedy. Imprint Stanford, Calif. : Stanford Historical Society, c2005. <http://trees.stanford.edu/>
- University of California, Division of Agriculture and Natural Resources. "UC Master Gardeners of Santa Clara County, CA." UC Master Gardeners of Santa Clara County, mgsantaclara.ucanr.edu/.
- Urban Forest Ecosystems Institute: Cal Poly San Luis Obispo "A Tree Selection Guide." selectree.calpoly.edu/.
- Wu, Lin, and Linda Dodge. "Landscape Plant Salt Tolerance Selection Guide for Recycled Water Irrigation." A Special Report for the Elvenia J. Slosson Endowment Fund, 2005.