



HISTORIC FIRE OCCURRENCES

WILDFIRE

California native plant communities, especially chaparral and coastal sage scrub, are adapted to and thrive on occasional fires. Chaparral communities are shaped by infrequent, high-intensity wildfires rather than frequent fires; prior to mass development and presence of humans, natural, beneficial fires were likely to occur in intervals of 30 to 150 years, but with climate change and human activity, the increased frequency and intensity of wildfires are threatening native plants and habitats.³³

Historically chaparral has been seen merely as fuel for fires and brush to be cleared rather than a native plant community worthy of being preserved.³⁴ However, more often the fuel for more intense wildfires is non-native, invasive grasses and forbs, which are rapid colonizers stoked by droughts and strong Santa Ana winds. Frequent fires cause native chaparral seeds and shrubs to die and limit shrub establishment, while invasive seeds are more likely to survive, further diminishing chaparral communities each recovery period. Restoring and protecting chaparral from excessive wildfire retains species diversity and slope stability, decreases erosion, increases water infiltration and carbon storage, and retains aesthetic integrity.³⁵

While much of the LA River is in a densely urban context, planting projects near larger wildlife areas such as Griffith Park and Sepulveda Basin should be particularly careful not to increase fire risk. Furthermore, any existing larger ROW parcels that are converted to native vegetation should be sure the design and maintenance regime works to mitigate risks from fire.³⁶

Wildfire mitigation strategies for native habitats along the LA River should focus upon eliminating invasive species, creating fuel breaks, and reducing fuel load where possible. The following can be considered as best practices:

- Remove invasive, non-native species during chaparral seeding or transplanting to aid in the establishment, survival, and recovery of native chaparral communities.³⁷
- Prune dead plant material and remove plant debris to reduce fuel load. Pruning methods should maintain the natural form of trees and shrubs.³⁸
- Consider spacing of canopy trees and large shrubs far enough to reduce the spread of fire.
- Maintain vertical separation between lower and upper fuel layers.³⁹
- Minimize grasses and forbs, cut to four inches tall when they brown.⁴⁰
- Reduce fuel load through mowing or machinery, grazing by animals such as goats, (NRCS Code 528), pruning (NRCS Code 660), removal, chipping, masticating, and/or sparingly through prescribed burning (NRCS Code 338).⁴¹

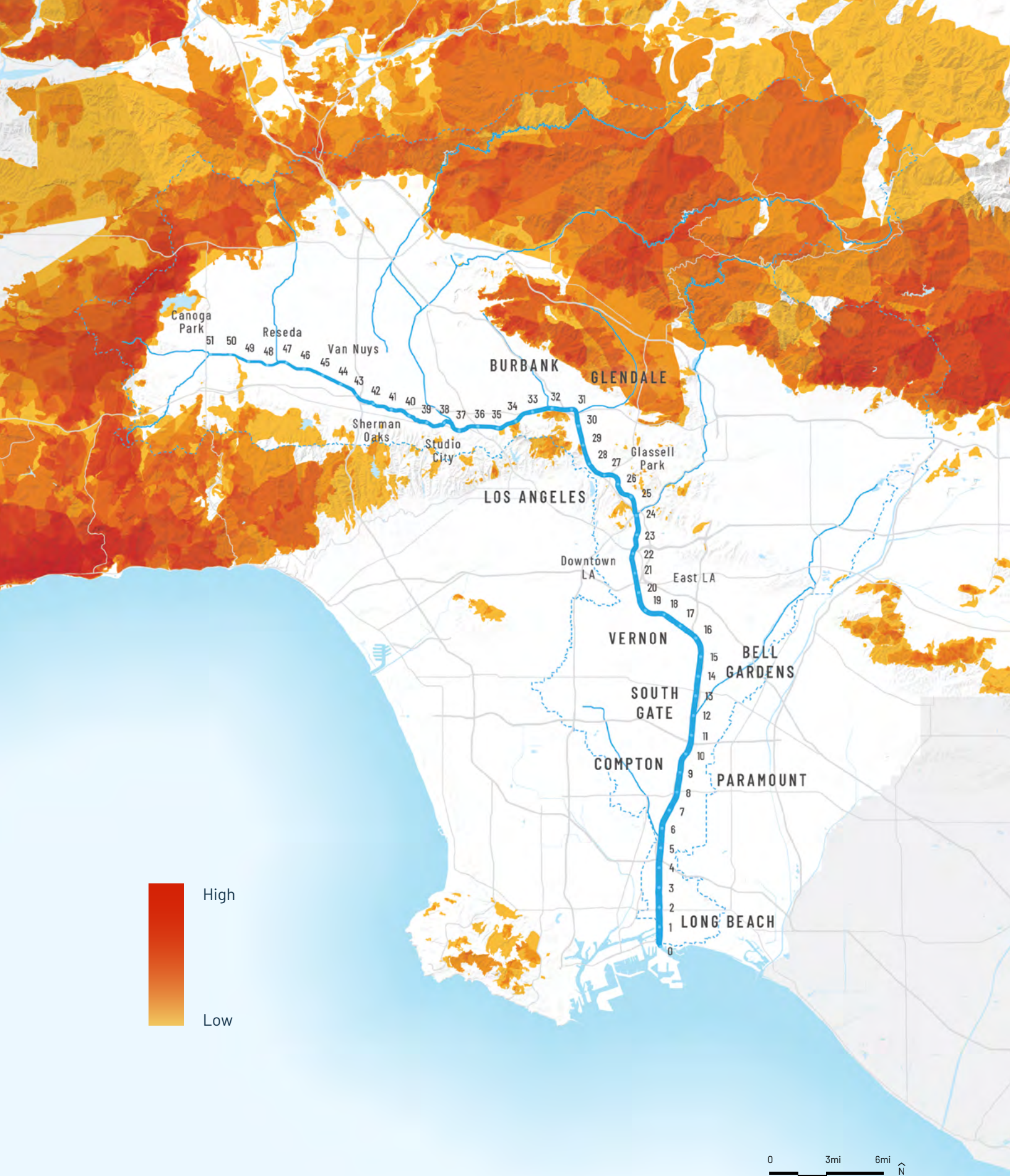


Figure 160. Historic Fire Occurrences Map. While native plant communities are adapted to occasional fires, the increased frequency of wildfires threatened the establishment of native shrubs and trees and favors non-native invasive species. Several design and maintenance strategies can help reduce this threat to native habitat. Source: State of California and the Department of Forestry and Fire Protection, Fire Perimeters Version 17_1, 2017.

DRAFT

PLANTING STRATEGIES

The historical vegetation of the LA River was a complicated landscape scale mosaic of predominantly willows, cottonwoods, sycamores, oaks, and marsh species. This historic, riparian vegetation is difficult to install within the confines of the present right-of-way due to limited access to water, changes in soil biotic activity and organic matter and other alterations resulting from the development of the river channel system. The landscape architect should keep in mind the species and communities that probably existed along project river reaches and determine whether or not those species can still thrive within the constraints now existing along the river right-of-way.

While restoration of riparian plant communities along the river is highly desirable ecologically, environmental conditions resulting from the existing infrastructure, maintenance requirements, and climate change may preclude the self-sustainability of such communities along much of the river. Therefore, many planting areas along the river may not be suitable for the historic riparian plant associations and other local native communities may be better suited depending on specific project goals and contexts.

Plantings are to be designed to include a range of native plants with the intent of achieving similar levels of species diversity as occurs in natural landscapes. Successional planting strategies from shorter lived perennials to established shrubs should be considered in planting design and maintenance. The diversity of the landscape plantings are to provide a variety of benefits ranging from soil development, erosion control, and habitat value to educational benefit, native community ceremonies and harvesting, and other community involvement.

In order to enhance ecological health and achieve the richest wildlife habitat opportunities, designers should seek to achieve diverse vertical structure in their projects by including the full range of vegetative layers present in both the short list or the native community - from tree canopy where applicable, through mid-layer and understory species as enumerated on the lists. The arrangement of plants in plan should aim to mimic natural plant communities in terms of

species type, quantity, and association to other species in the community. This helps to ensure compatibility and mutual support among the installed plant species. When designing habitats targeted for specific wildlife species, a qualified botanist or ecologist should be consulted.

Impacts from any prevailing insect and disease outbreaks, particularly those that target native trees, should be carefully considered with any proposed planting and may influence species selection for a project. Overall, monocultures should be avoided and a diversity of species encouraged. Maintenance and monitoring plans should establish practices for the surveillance and treatment of species threatened by any insect or disease outbreaks.

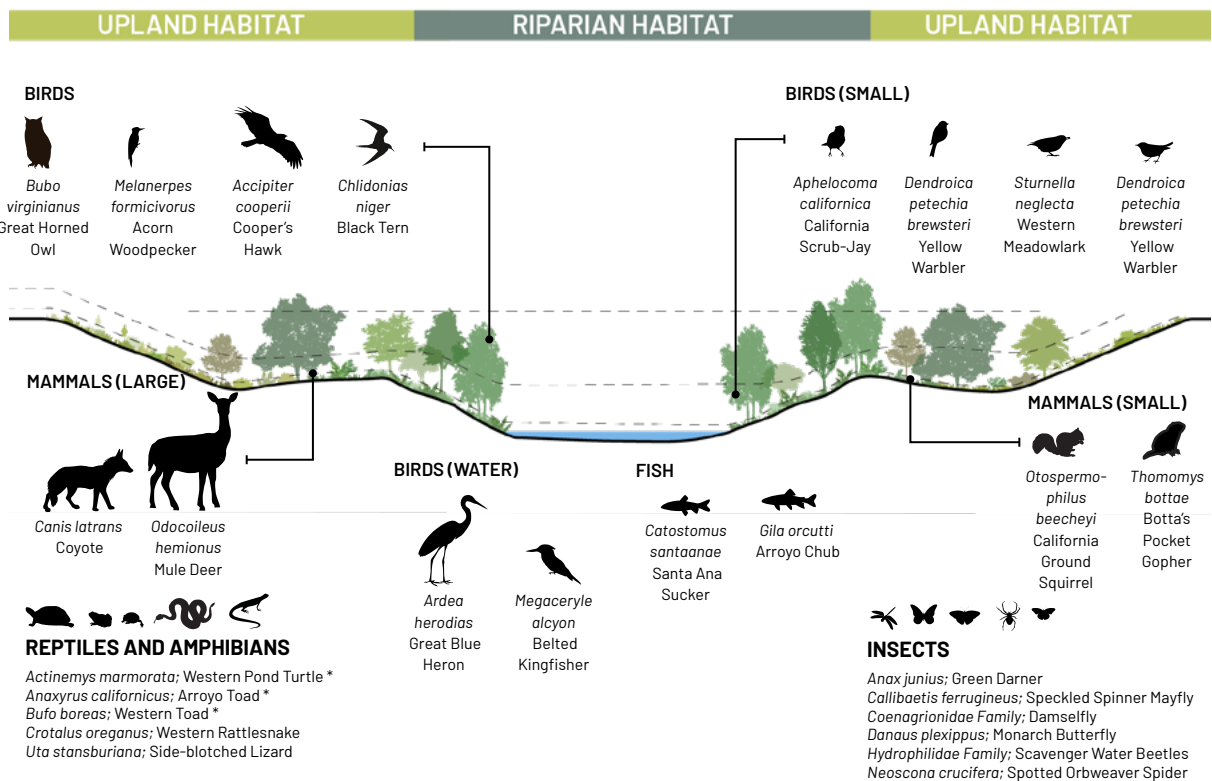
Suitable conditions for native plant communities may also be achieved by strategic grading and drainage patterns that guide vegetated and urban runoff into artificial "riparian zones". In areas with unrestricted soil depths, deep tillage of planting areas may be achieved by auguring the planting hole and breaking up hard subsoil layers. This strategy is strongly recommended for riparian tree species to provide a substrate through which developing tree roots can most readily reach the moisture they require for robust growth. The most common and broadly applicable strategy to ensure success of planting is the type and timing of supplemental irrigation during the three-year course of the establishment period. It is important to gradually wean plants off of irrigation to avoid shock related to stress from reduced water levels. Irrigation techniques should be applied to encourage deep rooting, such as allowing irrigation to run less frequently but for longer consecutive hours so that the soil can soak deeply. Match water application to soil type and root zone depth to reduce water run-off and loss of water below the active root zone of the target plant type.

The following guidelines may be implemented, in accordance with the LA County Low Impact Development Manual, LA County water sources, conservation standards, and the current California Green Building Standards Code to establish native plant materials utilizing drip irrigation:



PLANT COMMUNITY VERTICAL STRUCTURE

Figure 161. Vertical structure in planting varies depending on the type of native plant community. Woodland and forest communities tend to have large canopies, while scrub and chaparral communities tend to have primarily understory and shrub layers.



SOFT-BOTTOMED BASIN BIODIVERSITY PROFILE

Figure 162. Plant communities in different contexts can host diverse types wildlife. The example above shows a soft-bottom basin condition of either an existing or proposed river section. The species listed are meant to be a snapshot of a full list to be developed with a qualified ecologist and assume appropriate soil and plant community health to support the wildlife species. For more details, reference Chapter 6 of Appendix Volume II: Technical Backup Document.

- Provide separate drip zones to plant materials with differing watering requirements, target root zone depths, and application requirements.
- Where possible, utilize irrigation approaches that allow for the phased expansion of the drip irrigation area as trees and shrubs mature.
- Irrigation to be applied to within the entire mature dripline of trees and shrubs.

PLANT COMMUNITIES

The plant community lists have been developed through systematic review of several published sources regarding species distribution (see Bibliography in the Resources section), in combination with review of nursery and seed vendor lists. In most cases, these lists do not document every plant species that may be present within a native community and are not a substitute for a qualified botanist or ecologist for habitat-focused projects.

For example, many species of the alluvial fan sage scrub community are difficult to find in nurseries, including some of its signature species. However, this is the most appropriate community to install in the vicinity of Tujunga Wash and potentially other downstream locations. To facilitate reintroduction of this unusual community, additional coordination should be conducted to allow for localized contract growing and collection of plant propagules from local native sources.

Plant species nomenclature primarily follows Hickman, James C., ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley and Los Angeles.

Plant community and association names are after Holland (1986) followed by Sawyer and Keeler-Wolf (1995).

Planting projects should follow this general criteria:

- Include the services of qualified planting experts who have proven experience with California native planting projects to assist in making decisions regarding the plant palette. These experts should include a registered landscape architect, arborist, and a qualified botanist or ecologist.
- Planting in the LA River channel should only occur where excess hydraulic capacity is confirmed.
- Plants currently existing in the public right-of-way are to be assessed for their value and role in new projects. Existing, non-native non-invasive species may be retained until senescence (plant aging and death) then replaced with appropriate native plants. Based on the specific goals and objectives of a project, a different approach to existing non-native species may be taken. Overall, long-term management actions and replacement plantings are to emphasize native species and non-invasive species for future climate regimes.
- Planting can provide an opportunity to incorporate installed artworks or landart.



Figure 163. The chaparral community is often found on exposed slopes and hillsides, such as this example in the Santa Monica Mountains. Source: Tracie Hall, <https://www.flickr.com/photos/twobears2/5190609445/> (Topanga State Park, 2010)



Figure 164. The coast live oak woodland can be found on slopes or on river banks and terraces, such as this example in Malibu Creek State Park. Source: Tracie Hall, <https://www.flickr.com/photos/twobears2/5193454253/in/photostream/> (Malibu Creek State Park, 2010).

NATIVE PLANT SPECIES APPROPRIATE USE

The following native plant species that are not included on the plant community lists may be planted:

- Annuals and bulbs (which have higher maintenance requirements)
- Cultivars of the native species listed (use with caution in projects that interface with wildlands)
- Additional LA County native species recommended by a qualified botanist or ecologist

The following plants should never be planted along the LA River:

- Invasive plant species defined by the California Invasive Plant Council (Cal-IPC)
<https://www.cal-ipc.org/>

Additional information is on both native and invasive species is available through the California Native Plant Society: <https://www.cnps.org/>

In riparian or other native habitat areas, the following criteria for species selection should be followed:

- **95% minimum** of the total number of plants of the same pot size should be LA River Watershed native species (refer to the native plant community lists in this chapter).
- **5% maximum** of the total number of plants of the same pot size should be native to Los Angeles' Level III ecoregion (Southern California/Northern Baja Coast; Southern California Mountains).
- **10% minimum** of the total number of LA River Watershed native plants of the same pot size should be locally sourced in the LA River Watershed. Higher percentages should be achieved as local supply capacity increases.

NATIVE PLANT SPECIES TERMS & DEFINITIONS

LA River Watershed Native Plant Species: Plant species that are a part of the balance of nature that has developed over hundreds or thousands of years in the LA River Watershed. (Source: USDA)

Invasive Plant Species: Plant species that are both non-native and able to establish on many sites, grow quickly, and spread to the point of disrupting plant communities or ecosystems, causing environmental harm and/or harm to human health. (Source: USDA)

Non-Native Plant Species: A plant species introduced with human help (intentionally or accidentally) to a new place or new type of habitat where it was not previously found. Not all non-native plants are invasive and may not reproduce or spread readily without continued human help. (Source: USDA)

Ecoregions: Areas where ecosystems (and the type, quality, and quantity of environmental resources) are generally similar. This framework is derived from mapping done in collaboration with EPA regional offices, other Federal agencies, state resource management agencies, and neighboring North American countries. (Source: US EPA)

Figure 165. Terms and Definitions for Native Plant Species. Terms are defined as used in this document. Source: USDA, US EPA.

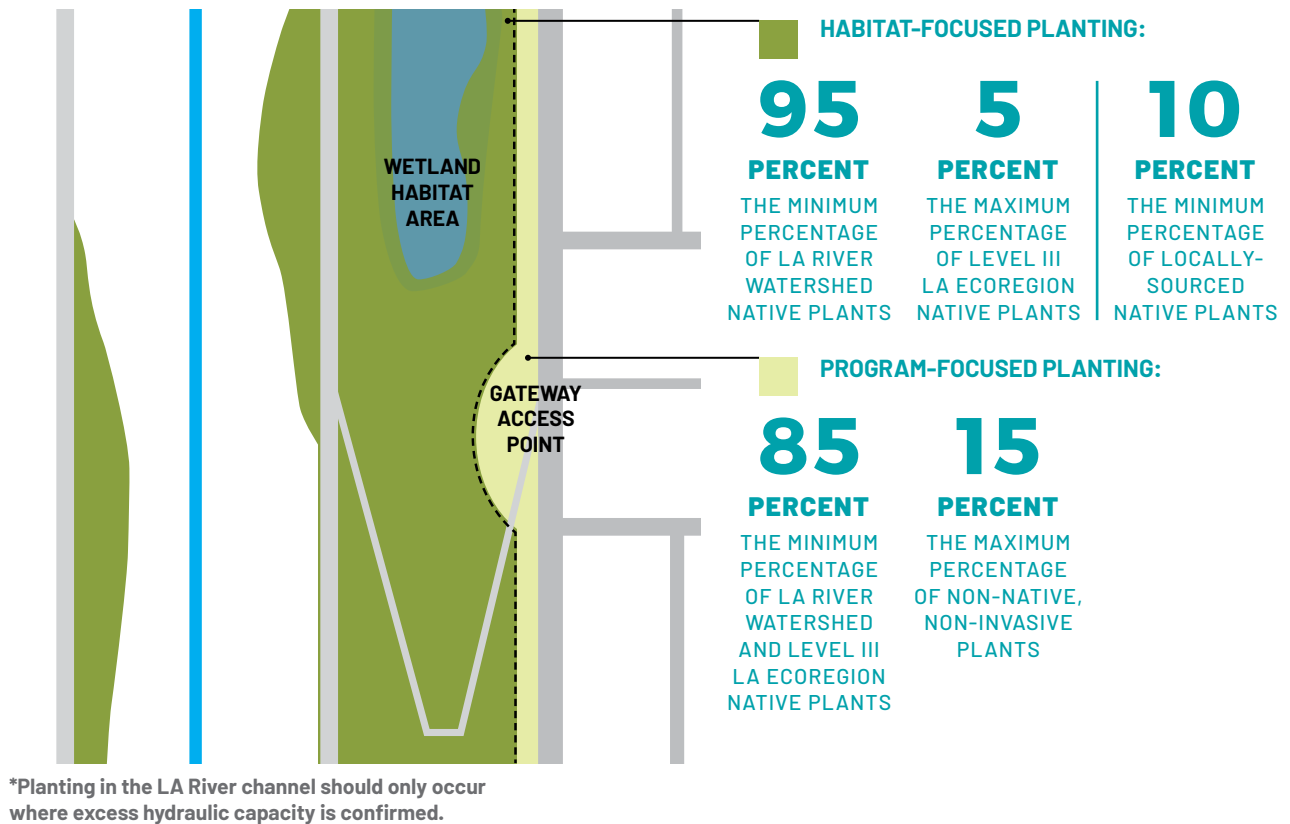


Figure 166. Species planting at gateways and along street frontages can incorporate more climate-adapted species, while riparian and other habitat areas should prioritize planting locally-sourced LA River watershed native plant species.

In programmed areas, gateways, or areas where the project interfaces with the city street grid, the following criteria for species selection should be followed:

- **85% minimum** of the total number of plants of the same pot size should be native to the LA River Watershed (refer to the native plant community lists in this chapter) or the Level III ecoregions of Los Angeles and just east of Los Angeles, as appropriate per planting context and climate regimes (Southern California/Northern Baja Coast; Southern California Mountains; Mojave Basin and Range; Sonoran Basin and Range).
- **15% maximum** of the total number of plants of the same pot size can be climate-adapted, non-native, non-invasive species.

All plant species selections should be made based on the specific goals and needs of a project. These percentages are a baseline benchmark and projects are encouraged to go over and beyond these requirements to meet project goals. Any variance to these requirements may be considered on a case-by-case, plant-by-plant basis by the county.

PLANTING LIST KEY

APPLICATIONS

- +** Enhances biodiversity, and provides habitat - especially for key indicator species for each community
- ^** Mature tree canopy, provides significant shade for pedestrians
- *** Tolerates heat
- ~** Tolerates flooding
- !** Useful for soil/bank stabilization
- o** Additional moderate to high levels of irrigation required if existing groundwater or riparian conditions are not available

SUN EXPOSURE

- FS** Full sunlight
- FS/PS** Full Sunlight to Partial Sunlight
- PS** Part Shade
- PS/FS** Part Shade to Full Shade

SPECIES

BOTANICAL NAME	COMMON NAME
SHRUBS	
<i>Baccharis salicifolia</i>	Mulefat
<i>Pluchea sericea</i>	Arrow weed
<i>Rhus aromatica</i>	Fragrant sumac

SITING + PERFORMANCE

FRAMES FOR BEST PERFORMANCE

CONSTRUCTED CONTEXTS

APPLICATIONS

SUN EXPOSURE

SETBACK FROM PAVEMENT (FEET)

FRAMES (SEE CH. 2 FOR MORE EXPLANATION)

1 - Estuary

Significant bird habitat; Brackish water all year long; Raised banks allow for planting; Opportunity for coastal wetlands

2 - South Plain

Significant bird habitat; Freshwater in channel; Algae mats could be preserved as food source for birds; Wide right-of-way provides opportunity for significant habitat areas, including wetland construction

3 - Central Plain

Lack of habitat and park space; Urban heat island mitigation and shade needed; Potential for habitat patches to connect significant ecological areas

4 - North Plain

Lack of habitat and park space; Urban heat island mitigation and shade needed; Harsh environment with pollution and soil contamination prevalent

5 - Heights

Lack of habitat and park space; Urban heat island mitigation and shade needed; Potential for habitat corridor connection and patches to connect significant ecological areas

6 - Narrows

Significant opportunity to enhance native habitat and connect to other important habitat corridors and patches; Natural riparian to upland connections are possible here

7 - East Valley

Dense residential context; Narrow right-of way; Significant opportunity to enhance native habitat and connect to other important habitat corridors and areas

8 - Mid Valley

Dense residential context; Narrow right-of way; Opportunities for park space, shade, and urban heat island mitigation; Opportunity to enhance native habitat and connect to other important habitat corridors and areas

9 - West Valley

Dense residential context; Significant opportunity to enhance native habitat and connect to other important habitat corridors and patches; Potential to connect to headwaters from this frame

CONSTRUCTED CONTEXTS

A

Steep slopes, fast draining, thin soil profile

B

Steep slopes, fast draining, thin soil profile (North-facing)

C

Level slope or terrace, fast draining with drier soils

D

Planting bed and soils surrounded by paving. Drier soils, hotter than usual ambient temperatures

E

Level slope or terrace, fast draining with intermittently flooded soils

F

Low-lying alluvial or gravelly soils that are seasonally flooded

G

Low-lying alluvial soils or gravelly soils with regular access to water

OCCURRENCE IN NATURAL COMMUNITIES

Dominant

Visually dominant in the mature landscape; usually refers to trees or large shrubs.

Subdominant

Visually subdominant.

Frequent

Refers to the numerical proportion of the species in the landscape. Especially in the case of grasses and herbaceous species, this category may indicate much higher numbers of individual plants than the dominant category, but these species do not dominate the casual vista.

Occasional

Refers to plants that occur occasionally in the designated plant community.

BLOOM SEASON

W

Winter

SP

Spring

SU

Summer

F

Fall

DESCRIPTIVE FEATURES

PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)	MATURE WIDTH (FEET)	SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR	BLOOM SEASON			
											W	SP	SU	F
S	H	4-8	6-10	X	X		Occasional	X	Bees, Butterflies	White/Pink/White	X	X	X	X
S	M	6-8	6+	X			Occasional	X		Pink		X	X	
S-D	L	3-5	4-8		X		Frequent - Occasional		Birds	Yellow/Cream		X		

WATER USE

WUCOLS: Estimates water needs based on the latest prevailing legislation. These water use categories used to develop hydrozone plans and submitting permitting applications. See <https://ucanr.edu/sites/WUCOLS/> for more information.

VL

Very low

L

Low

M

Medium

H

High

PLANT FORM

T

Tree

D

Deciduous

S

Shrub

SC

Succulent

G

Grass

GC

Groundcover

P

Perennial

V

Vine

A

Annual

PLANT PALETTE SELECTION IS HEAVILY DEPENDENT ON THE EXISTING CONDITIONS OF CHANNELIZATION (ENTRENCHED OR LEVEED), NATIVE OR IMPORTED SOIL CONDITIONS, ACCESS TO WATER, SUN EXPOSURE AMOUNT OF SHADE, RIGHTS-OF-WAY WIDTH VARIATIONS AND ADJACENT LAND USES

PLANT SPECIES INDEX

This index lists all species that appear in the following plant community lists. Some species occur in multiple communities.

Each community can be found starting on the following pages:

- Shortlist (SH) on page 214
- Alluvial Fan Sage Scrub (AFSS) on page 222
- Coastal Sage Scrub (CSS) on page 230
- Chaparral (CH) on page 238
- Southern Coast Live Oak Riparian Forest (CLORF) on page 246

BOTANICAL NAME	COMMON NAME	PLANT COMMUNITIES
TREES		
<i>Acer negundo</i>	Box elder	CLORF, CWRF, SRW
<i>Adenostoma sparsifolium</i>	Red shanks	CH
<i>Alnus rhombifolia</i>	White alder	SH, SRW, PFEW
<i>Arbutus 'Marina'</i>	Marina madrone	CT
<i>Calocedrus decurrens</i>	Incense Cedar	CT
<i>Celtis laevigata</i> var. <i>reticulata</i>	Western hackberry	DS
<i>Cercis occidentalis</i>	Western redbud	CT
<i>Chilopsis linearis</i>	Desert willow	DS, CT
<i>Chitalpa tashkentensis</i>	Chitalpa	CT
<i>Cordia boissieri</i>	Texas Wild Olive	CT
<i>Cupressus arizonica</i>	Arizona cypress	CT
<i>Dalbergia sissoo</i>	Indian rosewood	CT
<i>Forestiera neomexicana</i>	Desert olive	CT
<i>Fraxinus velutina</i> var. <i>coriacea</i>	Velvet ash	CLORF, CWRF, SRW, VOW
<i>Hesperocyparis forbesii</i>	Tecate cypress	CT
<i>Juglans californica</i> var. <i>californica</i>	California walnut	SH, CH, CLORF, CLOW, SRW, WW
<i>Laurus nobilis</i>	Sweet Bay	CT
<i>Lophostemon confertus</i>	Brisbane Box	CT
<i>Lyonothamnus floribundus</i> ssp. <i>asplenifolius</i>	Ironwood	CT
<i>Olneya tesota</i>	Desert ironwood	CT
<i>Parkinsonia florida</i>	Blue palo verde	DS
<i>Pinus canariensis</i>	Canary Island pine	CT
<i>Pinus coulteri</i>	Coulter pine	CT
<i>Pinus eldarica</i>	Eldarica pine	CT
<i>Pinus halepensis</i>	Aleppo pine	CT
<i>Pinus muricata</i>	Bishop pine	CT
<i>Pinus pinea</i>	Stone pine	CT
<i>Pinus torreyana</i>	Torrey pine	CT
<i>Platanus racemosa</i>	California sycamore	SH, AFSS, CLORF, CWRF, SRW, VOW

BOTANICAL NAME	COMMON NAME	PLANT COMMUNITIES
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	SH, CLORF, CWRF, SRW, PFEW
<i>Populus trichocarpa</i>	Black cottonwood	CLORF, CWRF, SRW, PFEW
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	SH, AFSS, CLORF, CLOW, SRW, VOW, WW
<i>Quercus chrysolepis</i>	Canyon live oak	CT
<i>Quercus douglasii</i>	Blue Oak	CT
<i>Quercus lobata</i>	Valley oak	SH, VOW
<i>Quercus wislizeni</i>	Interior live oak	DS
<i>Quillaja saponaria</i>	Soapbark tree	CT
<i>Salix gooddingii</i>	Black willow	CWRF, SRW, PFEW
<i>Salix laevigata</i>	Red willow	CWRF, PFEW
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Mexican elderberry	SH, AFSS, CSS, CLORF, CLOW, CWRF, SRW, WW, PFEW
<i>Searsia lancea</i>	African sumac	CT
<i>Tipuana tipu</i>	Tipu tree	CT
<i>Umbellularia californica</i>	California bay laurel	SH, CLORF, CLOW, CWRF, SRW
<i>Vitex agnus-castus</i>	Chaste tree	CT
SHRUBS		
<i>Adenostoma fasciculatum</i>	Chamise	AFSS, CH
<i>Amorpha fruticosa</i>	False indigobush	CLORF, CLOW, SRW
<i>Arctostaphylos glandulosa</i>	Eastwood manzanita	CH
<i>Arctostaphylos glauca</i>	Bigberry manzanita	AFSS, CH
<i>Artemisia californica</i>	California sagebrush	SH, AFSS, CSS, CH, CLORF, CLOW
<i>Atriplex canescens</i>	Four-wing saltbush	DS
<i>Atriplex lentiformis</i> ssp. <i>lentiformis</i>	Saltbush	SH, CSS, DM
<i>Baccharis pilularis</i> var. <i>consanguinea</i>	Coyote brush	SH, CSS, CLORF, CLOW, SRW, DM
<i>Baccharis salicifolia</i>	Mulefat	SH, CLORF, CWRF, SRW, PFEW
<i>Baccharis sarothroides</i>	Broom baccharis	DS
<i>Berberis nevii</i>	Nevin's barberry	SH, AFSS
<i>Berberis pinnata</i>	California barberry	CSS, CLORF, CLOW, SRW
<i>Brickellia californica</i>	California bricklebrush	AFSS

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- Southern Cottonwood-Willow Riparian Forest (CWRP) on page 262
- Southern Sycamore Riparian Woodland (SRW) on page 268
- Valley Oak Woodland (VOW) on page 276

- California Walnut Woodland (CWW) on page 280
- Perennial Freshwater Emergent Wetland (PFEW) on page 286
- Dry Meadow (DM) on page 292
- Desert Scrub (DS) on page 298
- Climate Adapted Trees (CT) on page 304

BOTANICAL NAME	COMMON NAME	PLANT COMMUNITIES
<i>Calliandra eriophylla</i>	Fairy duster	DS
<i>Ceanothus crassifolius</i>	Hoaryleaf ceanothus	AFSS, CH
<i>Ceanothus cuneatus</i>	Buck brush	CH
<i>Ceanothus leucodermis</i>	Chaparral whitethorn	AFSS, CH, CLOW
<i>Ceanothus megacarpus</i>	Big-pod ceanothus	CH
<i>Ceanothus oliganthus</i>	Hairy ceanothus	CH, CLORF, CLOW
<i>Ceanothus spinosus</i>	Greenbark ceanothus	CH
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	Mountain mahogany	SH, AFSS, CH
<i>Dendromecon rigida</i>	Bush poppy	AFSS, CSS, CH
<i>Diplacus longiflorus</i>	Southern bush monkeyflower	CSS, CH
<i>Encelia actoni</i>	Acton brittlebush	DS
<i>Encelia californica</i>	Bush sunflower	SH, AFSS, CSS
<i>Encelia farinosa</i>	Brittlebush	DS
<i>Ephedra viridis</i>	Mountain ephedra	DS
<i>Ericameria (Happlopappus) pinifolia</i>	Pine goldenbush	AFSS, CSS
<i>Ericameria nauseosa</i>	Rabbitbrush	DS
<i>Eriodictyon crassifolium</i>	Thick-leaved yerba santa	AFSS, CSS
<i>Eriodictyon trichocalyx</i> var. <i>trichocalyx</i>	Hairy yerba santa	SH, AFSS
<i>Eriogonum cinereum</i>	Ashyleaf Buckwheat	SH, CSS, CH
<i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i>	California buckwheat	AFSS, CSS, CLOW
<i>Eriogonum fasciculatum</i> var. <i>foliosum</i>	Leafy California buckwheat	SH, AFSS, CSS, CH, CLORF, CLOW, DS
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Interior California buckwheat	AFSS, CH, DS
<i>Fallugia paradoxa</i>	Apache plume	DS
<i>Frangula californica</i> ssp. <i>californica</i>	California coffeeberry	SH, CH, CLORF, CLOW, SRW, VOW, DS
<i>Gutierrezia californica</i>	California matchweed	AFSS
<i>Gutierrezia sarothrae</i>	Matchweed	AFSS
<i>Heteromeles arbutifolia</i>	Toyon	SH, CSS, CH, CLORF, CLOW, SRW, WW
<i>Hyptis emoryi</i>	Desert lavender	DS
<i>Isocoma menziesii</i> ssp. <i>vernonioides</i>	Goldenbush	CSS, CH, CLORF, CLOW, DM

BOTANICAL NAME	COMMON NAME	PLANT COMMUNITIES
<i>Isomeris arborea</i>	Bladder pod	DS
<i>Juniperus californica</i>	California juniper	AFSS
<i>Justicia californica</i>	Chuparosa	DS
<i>Keckiella cordifolia</i>	Heart-leaved penstemon	CSS, CH, CLORF, CLOW, SRW
<i>Larrea tridentata</i>	Creosote bush	DS
<i>Lepechinia fragrans</i>	Fragrant pitcher plant	CH, CLOW
<i>Lepidospartum squamatum</i>	Scale broom	AFSS
<i>Lonicera subspicata</i> var. <i>denudata</i>	Chaparral honeysuckle	CH, CLORF, WW
<i>Lupinus excubitus</i>	Grape soda lupine	DS
<i>Lycium andersonii</i>	Water jacket	DS
<i>Malacothamnus davidsonii</i>	Davidson's bush mallow	SH, AFSS
<i>Malacothamnus fasciculatus</i>	Chaparral bush mallow	AFSS, CSS, WW
<i>Malosma laurina</i>	Laurel sumac	SH, AFSS, CSS, CH, CLORF, CLOW, SRW
<i>Mimulus aurantiacus</i>	Bush monkey flower	SH, CSS, CH, CLORF, CLOW, SRW, WW
<i>Peritoma arborea</i>	Bladderpod	SH, CSS, DS
<i>Pluchea sericea</i>	Arrow weed	SH, AFSS, CSS, CWRP, SRW
<i>Prosopis glandulosa</i>	Honey mesquite	DS
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Hollyleaf cherry	SH, AFSS, CSS, CH, CLORF, CLOW, SRW, WW
<i>Quercus berberidifolia</i>	Scrub oak	AFSS, CSS, CH
<i>Rhamnus crocea</i>	Spiny redberry	SH, AFSS, CSS, CH
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	SH, CSS, CH, CLORF, CLOW, SRW, WW
<i>Rhus aromatica</i>	Fragrant sumac	CH, CLORF, CLOW, CWRP, SRW
<i>Rhus integrifolia</i>	Lemonadeberry	SH, AFSS, CSS, CH, CLORF, CLOW, SRW
<i>Rhus ovata</i>	Sugar bush	SH, AFSS, CH, CLOW, WW
<i>Ribes aureum</i> var. <i>gracillimum</i>	Golden currant	SH, CLORF, CLOW, SRW, WW
<i>Ribes californicum</i> var. <i>hesperium</i>	Hillside gooseberry	SH, CH, CLORF, CLOW, SRW
<i>Ribes malvaceum</i> var. <i>viridifolium</i>	Chaparral currant	CH, CLOW
<i>Ribes speciosum</i>	Fuchsia-flowered gooseberry	SH, CH, CLORF, CLOW, SRW
<i>Rosa californica</i>	California wild rose	SH, CLORF, CLOW, CWRP, SRW

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PLANT SPECIES INDEX

BOTANICAL NAME	COMMON NAME	PLANT COMMUNITIES
SHRUBS (continued)		
<i>Salix exigua</i>	Sandbar willow	SH, CWRW, SRW, PFEW
<i>Salix lasiandra</i>	Shining willow	CWRW, PFEW
<i>Salix lasiolepis</i>	Arroyo willow	SH, CWRW, SRW, PFEW
<i>Salvia apiana</i>	White sage	SH, AFSS, CSS, CH, CLORF, CLOW, DS
<i>Salvia leucophylla</i>	Purple sage	SH, CSS, CLOW, WW
<i>Salvia mellifera</i>	Black sage	SH, AFSS, CSS, CH, CLOW, WW
<i>Scutellaria mexicana</i>	Mexican bladdersage	DS
<i>Simmondsia chinensis</i>	Jojoba	DS
<i>Sphaeralcea ambigua</i>	Apricot mallow	DS
<i>Tecoma stans</i>	Yellow bells	DS
<i>Trichostema lanatum</i>	Woolly blue curls	CSS, CH
<i>Venegasia carpesioides</i>	Canyon sunflower	CLORF, CLOW, SRW
PERENNIALS		
<i>Abutilon palmeri</i>	Palmer's Indian mallow	DS
<i>Acourtia microcephala</i>	Sacapellote	CH
<i>Alisma triviale</i>	Water plantain	PFEW
<i>Ambrosia psilostachya</i>	Western ragweed	DM
<i>Artemisia douglasiana</i>	Mugwort	SH, CLORF, CLOW, CWRW, SRW, PFEW
<i>Asclepias eriocarpa</i>	Indian milkweed	CSS, CH, CLOW
<i>Asclepias erosa</i>	Desert milkweed	DS
<i>Asclepias fascicularis</i>	Narrow-leaved milkweed	CSS, CH, WW
<i>Bidens laevis</i>	Bur marigold	PFEW
<i>Bloomeria crocea</i>	Common goldenstar	DM
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	California aster	SH, AFSS, CSS, CH, CLORF, CLOW, VOW, WW
<i>Croton californicus</i>	California croton	AFSS, CSS
<i>Delphinium cardinale</i>	Scarlet larkspur	AFSS, CSS, CH
<i>Dryopteris arguta</i>	Coastal wood fern	CLORF, CLOW, WW
<i>Epilobium canum</i> ssp. <i>canum</i>	Hoary California fuchsia	SH, CSS, CH, DM
<i>Epilobium canum</i> ssp. <i>latifolium</i>	California fuchsia	SH, CSS, CH, CLOW
<i>Equisetum hymale</i>	Scouring rush	PFEW
<i>Eriastrum densifolium</i> ssp. <i>elongatum</i>	Woolly star	AFSS
<i>Eriogonum elongatum</i>	Longstem buckwheat	CH
<i>Eriophyllum confertiflorum</i>	Golden yarrow	AFSS, CSS, CH, CLORF, CLOW, CWRW, SRW, VOW, WW
<i>Eschscholzia californica</i>	California poppy	AFSS, CSS, CLOW, SRW, VOW, WW, DM
<i>Galium angustifolium</i>	Narrow-leaf bedstraw	AFSS

BOTANICAL NAME	COMMON NAME	PLANT COMMUNITIES
<i>Grindelia camporum</i>	Great valley gumweed	DM
<i>Juncus patens</i>	California grey rush	SH, CLORF, CWRW, SRW
<i>Juncus textilis</i>	Basket rush	SRW
<i>Juncus torreyi</i>	Rush	CLORF, CWRW, SRW
<i>Linanthus californicus</i>	Prickly phlox	CSS, CLOW
<i>Lotus scoparius</i> (<i>Acmispon glaber</i>)	Deerweed	AFSS, CSS, CH, CLORF, CLOW, SRW
<i>Lupinus bicolor</i>	Miniature lupine	DM
<i>Lupinus latifolius</i> var. <i>parishii</i>	Broad-leaf canyon lupine	CSS, CLORF, CLOW, SRW
<i>Lupinus longifolius</i>	Blue bush lupine	CH
<i>Malacothrix saxatilis</i>	Cliff aster	CSS, WW
<i>Mimulus cardinalis</i>	Scarlet monkeyflower	CWRW
<i>Mirabilis californica</i> (<i>Mirabilis laevis</i>)	Wishbone bush	AFSS, CSS
<i>Pellaea andromedifolia</i>	Coffee fern	AFSS, CSS
<i>Pellaea mucronata</i>	Bird's foot fern	AFSS, CSS
<i>Penstemon centranthifolius</i>	Scarlet bugler	SH, CH, CLOW
<i>Penstemon heterophyllus</i> var. <i>australis</i>	Foothill penstemon	SH, CH, CLOW, DM
<i>Penstemon spectabilis</i>	Showy penstemon	SH, AFSS, CSS, CH, CLOW
<i>Polypodium californicum</i>	California polypody fern	AFSS, CSS
<i>Pseudognaphalium canescens</i>	Wright's cudweed	DM
<i>Romneya coulteri</i>	Coulter's Matilija poppy	CSS, CH, DS
<i>Sidalcea malviflora</i>	Checker bloom	DM
<i>Sisyrinchium bellum</i>	Blue-eyed grass	CSS, CLOW, VOW, WW, DM
<i>Solanum xanti</i>	Purple or chaparral nightshade	AFSS, CSS, CH
<i>Sparganium eurycarpum</i>	Broadfruit bur-reed	PFEW
<i>Thalictrum fendleri</i> var. <i>polycarpum</i>	Meadow rue	CH, CLORF, CWRW, SRW, WW
<i>Typha domingensis</i>	Southern cattail	SRW
<i>Typha latifolia</i>	Broadleaf cattail	PFEW
GRASSES		
<i>Agrostis exarata</i>	Bent grass	CLORF, CWRW, SRW
<i>Agrostis pallens</i>	Seashore bent grass	DM
<i>Aristida purpurea</i>	Purple three awn	SH, DS
<i>Bolboschoenus maritimus</i>	Alkali bulrush	PFEW
<i>Bothriochloa barbinodis</i>	Cane bluegrass	CH
<i>Bouteloua gracilis</i>	Blue Grama	DS
<i>Bromus carinatus</i> var. <i>carinatus</i>	California brome	CSS, CH, CLORF, CLOW, SRW, VOW, WW, DM
<i>Carex barbarae</i>	Valley sedge	CWRW, SRW

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BOTANICAL NAME	COMMON NAME	PLANT COMMUNITIES
<i>Carex fraxa</i>	Fragile-sheathed sedge	PFEW
<i>Carex senta</i>	Swamp carex	PFEW
<i>Carex spissa</i>	San Diego sedge	CWRF, SRW, PFEW
<i>Cyperus eragrostis</i>	Tall flatsedge	PFEW
<i>Elymus condensatus</i>	Giant wildrye	SH, AFSS, CSS, CH, CLORF, CLOW, CWRF, SRW, VOW, WW
<i>Elymus elymoides</i> var. <i>elymoides</i>	Squirreltail	AFSS
<i>Elymus glaucus</i> ssp. <i>glaucus</i>	Blue wild rye	CSS, CH, CLORF, CLOW, WW, PFEW, DM
<i>Elymus trachycaulus</i>	Slender wheatgrass	DM
<i>Festuca californica</i>	California fescue	DM
<i>Hordeum brachyantherum</i> ssp. <i>californicum</i>	California meadow barley	DM
<i>Juncus balticus</i>	Wire rush	PFEW
<i>Juncus macrophyllus</i>	Long-leaved rush	PFEW
<i>Juncus xiphioides</i>	Iris-leaf rush	PFEW
<i>Koeleria macrantha</i>	Junegrass	CLOW, DM
<i>Melica californica</i>	California melicgrass	DM
<i>Muhlenbergia rigens</i>	Deergrass	SH, CH, CLORF, CLOW, SRW, VOW, DM
<i>Poa secunda</i> ssp. <i>secunda</i> (<i>P. scabrella</i>)	One-sided bluegrass	CLOW
<i>Schoenoplectus acutus</i> var. <i>occidentalis</i>	Tule	SRW
<i>Schoenoplectus californicus</i>	California bulrush	PFEW
<i>Sporobolus airoides</i>	Alkali sacaton	SH, CSS, DM, DS
<i>Stipa cernua</i>	Nodding needlegrass	CH, CLOW, VOW, DM
<i>Stipa coronatum</i>	Giant stipa	AFSS, CSS, CH, DM
<i>Stipa hymenoides</i>	Indian ricegrass	DS
<i>Stipa lepida</i>	Foothill needlegrass	AFSS, CSS, CH, CLOW, WW, DM
<i>Stipa pulchra</i>	Purple needlegrass	CH, CLOW, VOW, WW, DM
<i>Stipa speciosa</i>	Desert needlegrass	AFSS, DS
SUCCULENTS		
<i>Agave deserti</i>	Desert agave	DS
<i>Cylindropuntia californica</i> var. <i>parkeri</i>	Cane cholla	AFSS
<i>Dudleya lanceolata</i>	Lance-leaved live-forever	AFSS, CSS
<i>Dudleya pulverulenta</i>	Chalk dudleya	CSS, CH
<i>Fouquieria splendens</i>	Ocotillo	DS
<i>Opuntia basilaris</i>	Beaver tail	AFSS, DS
<i>Opuntia littoralis</i>	Coastal prickly pear	AFSS, WW
<i>Yucca schidigera</i>	Mojave yucca	DS
<i>Yucca whipplei</i>	Our lord's candle / chaparral yucca	SH, AFSS, CSS, CH, CLOW

BOTANICAL NAME	COMMON NAME	PLANT COMMUNITIES
VINES		
<i>Calystegia macrostegia</i> ssp. <i>arida</i>	Southern California morning glory	SH, AFSS, CSS, WW
<i>Calystegia macrostegia</i> ssp. <i>intermedia</i>	Island morning glory	SH, WW
<i>Clematis lasiantha</i>	Pipestems	SH, CH, CLORF, CLOW
<i>Clematis ligusticifolia</i>	Virgin's bower	SH, AFSS, CSS, CH, CLORF, CLOW, CWRF, SRW, VOW, WW
<i>Funastrum cynanchoides</i> var. <i>hartwegii</i>	Twining milkweed	AFSS, CSS
<i>Lathyrus vestitus</i>	Pacific sweet pea	AFSS, CSS, CH, CLORF, CLOW, VOW
<i>Lathyrus vestitus</i> var. <i>alefeldii</i>	Showy Pacific sweet pea	AFSS, CSS, CH, CLOW
<i>Vitis girdiana</i>	Desert grape	SH, CLORF, CWRF, SRW, VOW, DS
GROUNDCOVERS		
<i>Achillea millefolium</i> var. <i>californicum</i>	Yarrow	SH, CLOW, VOW, WW, DM
<i>Anemopsis californica</i>	Yerba mansa	PFEW
<i>Carex praegracilis</i>	Slender sedge	SH, CSS, CLORF, CLOW, CWRF, SRW, VOW, WW, PFEW
<i>Elymus triticoides</i>	Creeping wild rye	SH, CLORF, CWRF, SRW, VOW, WW
<i>Euthamia occidentalis</i>	Western goldenrod	SH, AFSS, CSS, CWRF, SRW, VOW, WW
<i>Nasturtium officinale</i>	Watercress	PFEW
<i>Salvia spathacea</i>	Pitcher sage	SH, CH, CLORF, CLOW, SRW, DM
<i>Solidago californica</i>	California goldenrod	SH, AFSS, CSS, CH, CLORF, CLOW, CWRF, SRW, VOW, WW
<i>Solidago confinis</i>	Southern goldenrod	SH, AFSS, CSS, CH, CLORF, CLOW, CWRF, SRW, VOW, WW
<i>Stachys bullata</i>	Pink hedgenettle	SH, CLORF, CLOW, SRW
<i>Symphoricarpos mollis</i>	Creeping snowberry	SH, CH, CLORF, CLOW, SRW, WW
ANNUALS		
<i>Achyrrachaena mollis</i>	Blow wives	DM
<i>Ambrosia acanthicarpa</i>	Annual bursage	DM
<i>Apiastrum angustifolium</i>	Mock parsley	DM
<i>Camissoniopsis bistorta</i>	California sun cup	DM
<i>Chaenactis glabriuscula</i>	Yellow pincushion	DM
<i>Cryptantha intermedia</i>	Common cryptantha	DM
<i>Deinandra fasciculata</i>	Clustered tarweed	DM
<i>Lasthenia californica</i>	California goldfields	DM
<i>Layia platyglossa</i>	Coastal tidy tips	DM
<i>Phacelia stellaris</i>	Brand's star phacelia	DM
<i>Lepidium nitidum</i>	Peppergrass	DM

SHORTLIST

Shortlist (SH): The shortlist of native LA River watershed plants can be used throughout all reaches of the river to provide overall landscape continuity. This list is much shorter than the plant community lists to assure a strong visual image for the river, and is based upon the following criteria:

- Plants are native and appropriate to the LA River system.
- Plants are growable in nursery conditions.
- Plants have a high probability for success when planted within the designated area(s).
- Propagules of the plants are available within the LA River watershed.
- Plants have aesthetic appeal.
- Plants will provide potential wildlife habitat.
- Plants should require minimal maintenance and water following establishment when chosen carefully to be adapted to actual site conditions

Figure 167. *Platanus racemosa*. Source: Raffi Kojian, <http://www.gardenology.org>, <https://commons.wikimedia.org/w/index.php?curid=9705655>.

Figure 168. *Quercus agrifolia*. Source: Stickpen, <https://commons.wikimedia.org/w/index.php?curid=9944130>.

Figure 169. *Umbellularia californica*. Source: Krzysztof Ziarnek, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54448438>

Figure 170. *Frangula californica*. Source: Krzysztof Ziarnek, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=37322426>.

Figure 171. *Mimulus aurantiacus*. Source: Franz Xaver, <https://commons.wikimedia.org/w/index.php?curid=17165632>.

Figure 172. *Salvia mellifera*. Source: Jerry Kirkhart, Black Sage, <https://commons.wikimedia.org/w/index.php?curid=43169351>.

Figure 173. *Salvia spathacea*. Source: peganum, <https://commons.wikimedia.org/w/index.php?curid=37049932>.

Figure 174. *Solidago californica*. Source: Stickpen, <https://commons.wikimedia.org/w/index.php?curid=8092464>.

Figure 175. *Clematis ligusticifolia*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=5376939>.



Platanus racemosa



Quercus agrifolia



Umbellularia californica



Frangula californica ssp. *californica*



Mimulus aurantiacus



Salvia mellifera



Salvia spathacea



Solidago californica



Clematis ligusticifolia

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
TREES							
<i>Alnus rhombifolia</i>	White alder	1-9	G	+ ^ ~ o	All	6	
<i>Juglans californica</i> var. <i>californica</i>	California walnut	3-9	B, E, F	+ ^ !	FS / PS	6	
<i>Platanus racemosa</i>	California sycamore	1-9	E, F	+ ^ ~	FS	6	
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	1-9	F, G	+ ^ ~ o	FS	8	
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	1-9	A, B, C	+ ^	FS	8	
<i>Quercus lobata</i>	Valley oak	3-6	A, C, E	+ ^ *	FS	8	
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6	
<i>Umbellularia californica</i>	California bay laurel	1-9	B, E, F	+ ^ !	FS / PS	6	
SHRUBS AND PERENNIALS							
<i>Artemisia californica</i>	California sagebrush	1-6, 9	A, C, D	* !	FS	3	
<i>Artemisia douglasiana</i>	Mugwort	1-9	A, B, C, E	! ~ o	All	3	
<i>Aristida purpurea</i>	Purple three awn	1-9	A, C, D, E	*	FS	1	
<i>Atriplex lentiformis</i> ssp. <i>lentiformis</i>	Saltbush	1-5	C, D, E	* !	FS	5	
<i>Baccharis pilularis</i> var. <i>consanguinea</i>	Coyote brush	1-5	A, C, D	* !	FS / PS	4	
<i>Baccharis salicifolia</i>	Mulefat	1-9	F, G	+ ~ o	All	3	
<i>Berberis nevinii</i>	Nevin's barberry	3-9	A, C, E	+	FS	5	
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	Mountain mahogany	1-9	B, C	+ ^ !	FS	6	
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	California aster	1-9	A, B		FS	2	
<i>Elymus condensatus</i>	Giant wildrye	1-9	A, B, C, E		All	2	
<i>Encelia californica</i>	Bush sunflower	1-9	A, C	* !	FS / PS	3	
<i>Epilobium canum</i> ssp. <i>canum</i>	Hoary California fuchsia	1-9	A, B	+	FS / PS	2	
<i>Epilobium canum</i> ssp. <i>latifolium</i>	California fuchsia	1-9	A, B	+	FS / PS	2	
<i>Eriodictyon trichocalyx</i> var. <i>trichocalyx</i>	Hairy yerba santa	5-9	A, C	+	FS	2	
<i>Eriogonum cinereum</i>	Ashyleaf Buckwheat	1-5	A, C	+	FS	3	

DESCRIPTIVE FEATURES

		PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		USACE NATIVE PLANT LIST SEED LA TARGET LIST OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON				PLANT COMMUNITIES
										W	SP	SU	F			
	T-D	H	20-30	20-30			X	Birds, Butterflies	Green / Cream			X	X	SRW		
	T-D	L	15-25	20	X		X	Birds	Yellow		X			CH, CLORF, CLOW, SRW, WW		
	T-D	M	40	40	X		X	Birds, Butterflies	Yellow/Cream	X	X			AFSS, CLORF, CWRF, SRW, VOW		
	T-D	M	30	35			X	Birds, Butterflies	Cream	X	X			CLORF, CWRF, SRW		
	T	VL / L	40	40	X		X	Birds, Butterflies	Yellow		X			AFSS, CLORF, CLOW, SRW, VOW, WW		
	T-D	M	35	35	X		X	Birds, Butterflies	Green / Cream	X	X			VOW		
	T-D	L	15	20	X		X	Birds, Butterflies, Bees	Yellow/Cream		X	X		AFSS, CLORF, CLOW, CSS, CWRF, SRW, WW		
	T	L	30	30			X	Birds	Yellow/Cream		X			AFSS, CLORF, CLOW, CSS, CWRF, SRW, WW		
	S	VL	3	2-3	X	X	X	Birds, Butterflies	White + Yellow		X	X	X	AFSS, CH, CLORF, CLOW, CSS, SRW		
	P	M	3-5	3+	X		X	Birds, Butterflies	Yellow/Cream		X	X	X	CLORF, CWRF, SRW		
	G/P/GC	VL	1-3	2			X							DS		
	S	VL	6-8	5-10	X		X	Birds, Butterflies	Yellow/Brown			X		CSS		
	S	L	4-6	6-8	X		X	Bees, Butterflies	Yellow/Cream	X	X	X	X	CLORF, CLOW, CSS, SRW		
	S	H	4-8	6-10	X		X	Bees, Butterflies	White/Pink/White	X	X	X	X	CH, CSS		
	S	VL	6-12	6-12			X	Birds, Bees	Yellow / Green		X			AFSS		
	T/S	VL	6-20	12			X	Birds	Yellow/Cream	X	X			AFSS, CH		
	P	L	1-3	1-3			X	Birds, Butterflies, Bees	Purple/Pink/White	X				AFSS, CH, CLORF, CLOW, CSS, VOW, WW		
	G/P/GC	L	4-5	3+			X	Butterflies						CH, CLORF, CLOW, CSS, CWRF, SRW, VOW, WW		
	S	VL	3-4	3-6	X		X	Birds, Butterflies, Bees	Yellow	X	X			AFSS, CSS		
	P	VL	1-3	2-4				Birds, Butterflies	Red			X	X	CH, CSS		
	P	VL	1-3	2-4			X	Birds, Butterflies	Red			X	X	CH, CLOW, CSS		
	S	VL	2-5	3+	X			Butterflies	White			X		AFSS		
	S	VL	2-4	3-5			X	Birds, Butterflies, Bees	Yellow/Brown	X	X	X	X	CH, CSS		

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE			
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE SETBACK FROM PAVEMENT (FEET)
SHRUBS AND PERENNIALS (continued)							
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	Leafy California buckwheat	1-9	A, C	+ !	FS / PS	3	
<i>Frangula californica</i> ssp. <i>californica</i>	California coffeeberry	1-9	A, B, C, D	* !	All	6	
<i>Heteromeles arbutifolia</i>	Toyon	1-9	A, B, C, E, F	+ ^ !	FS / PS	6	
<i>Juncus patens</i>	California grey rush	1-9	E, F, G	~ o	FS / PS	2	
<i>Malacothamnus davidsonii</i>	Davidson's bush mallow	6-9	A, C, D	+	FS	8	
<i>Malosma laurina</i>	Laurel sumac	1-9	A, C	+ !	FS	6	
<i>Mimulus aurantiacus</i>	Bush monkey flower	1-9	A, B, C		FS / PS	2	
<i>Muhlenbergia rigens</i>	Deergrass	1-9	A, B, C, E, F		FS / PS	3	
<i>Penstemon centranthifolius</i>	Scarlet bugler	1-9	A, B, C, E, F	+	FS	2	
<i>Penstemon heterophyllus</i> var. <i>australis</i>	Foothill penstemon	1-3; 6-9	A, B, C		FS / PS	1	
<i>Penstemon spectabilis</i>	Showy penstemon	1-9	C		FS	1	
<i>Peritoma arborea</i>	Bladderpod	1-9	A, B, C	+ !	FS / PS	4	
<i>Pluchea sericea</i>	Arrow weed	1-9	F, G	o	FS	3	
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Hollyleaf cherry	5-9	A, B, C	+ !	FS / PS	4	
<i>Rhamnus crocea</i>	Spiny redberry	5-9	A, B, C	+ !	All	4	
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	5-9	A, B, C	+ !	All	5	
<i>Rhus integrifolia</i>	Lemonadeberry	1-9	A, B, C	+ !	FS / PS	6	
<i>Rhus ovata</i>	Sugar bush	1-9	A, C	+ * !	FS / PS	6	
<i>Ribes aureum</i> var. <i>gracillimum</i>	Golden currant	3-9	A, B, C, E, F		FS / PS	3	
<i>Ribes californicum</i> var. <i>hesperium</i>	Hillside gooseberry	3-9	B, F, G	+	PS	4	
<i>Ribes speciosum</i>	Fuchsia-flowered gooseberry	3-9	B, F	+	PS / FS	4	
<i>Rosa californica</i>	California wild rose	1-9	E, F, G		All	3	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON	PLANT COMMUNITIES
											W	SP	SU	F		
	S	VL	3-5	2-6	X	X	X	Birds, Butterflies, Bees		Red/Cream			X			AFSS, CH, CLORF, CLOW, CSS
	S	VL	8	12			X	Birds, Butterflies, Bees		Cream		X	X			CH, CLORF, CLOW, SRW, VOW
	S/T	VL	8-15	15			X	Birds, Bees		White			X			CH, CLORF, CLOW, CSS, SRW, WW
	P/GC	L	2.5	3+			X									CLORF, CWRF, SRW
	S	(Not Listed)	10	8				Birds, Butterflies		Pink		X	X			AFSS
	S	VL	10	20	X		X	Birds		Cream	X	X				AFSS, CH, CLORF, CLOW, CSS, SRW
	S	VL	2	2		X	X	Birds, Butterflies, Bees		Orange/Yellow	X	X	X			CH, CLORF, CLOW, CSS, SRW, WW
	G/P/GC	L	3	4			X	Birds								CH, CLORF, CLOW, SRW, VOW
	P	L	1	1-2			X	Birds, Butterflies, Bees		Red		X	X			CH, CLOW
	P	L	1	2			X	Birds, Butterflies, Bees		Purple/Blue	X	X	X			CH, CLOW
	P	L	3	3			X	Birds		Purple/Blue/Pink	X					AFSS, CSS, CH, CLOW
	S	VL	3-5	5	X		X	Birds, Butterflies, Bees		Yellow/Green	X	X				CLOW, CSS
	S	M	6-8	6+			X			Pink		X	X			AFSS, CSS, CWRF, SRW
	S	VL	6-12	6-12			X	Birds, Butterflies, Bees		Cream	X	X				AFSS, CH, CLORF, CLOW, CSS, SRW, WW
	S	VL	4	4			X	Birds, Butterflies, Bees		Yellow/Cream	X	X				AFSS, CH, CSS
	S	VL	6	6			X	Birds, Butterflies, Bees		Yellow/Cream	X	X				CH, CLORF, CLOW, CSS, SRW
	S	VL	8-10	15	X		X	Birds		Pink	X	X				AFSS, CH, CLORF, CLOW, CSS, SRW
	S	VL	8-10	15	X		X	Birds		Pink/White	X	X				AFSS, CH, CLOW, WW
	S-D	VL	6-8	6-8	X	X	X	Birds, Butterflies, Bees		Yellow/Cream	X	X				CLORF, CLOW, SRW, WW
	S-D	L	5	5-8	X		X	Birds, Butterflies, Bees		Purple/Yellow	X	X				CH, CLORF, CLOW, SRW
	S-D	VL	5-8	6-8	X		X	Birds, Butterflies, Bees		Red/Pink	X	X				CH, CLORF, CLOW, SRW
	S	L	4-6	4+			X	Birds, Butterflies, Bees		Pink		X	X			CLORF, CLOW, CWRF, SRW

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME						
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
SHRUBS AND PERENNIALS (continued)							
Salix exigua	Sandbar willow	2-9	F, G	+ ~ o	FS	6	
Salix lasiolepis	Arroyo willow	1-9	G	+ ^ ~ o	FS / PS	5	
Salvia apiana	White sage	3-9	A, C, D	+ !	FS	3	
Salvia leucophylla	Purple sage	1-9	A, C, D	+ * !	FS	5	
Salvia mellifera	Black sage	1-9	A, C, D	+ !	FS	4	
Sporobolus airoides	Alkali sacaton	1-5	A, C, D	*	FS	2	
Yucca whipplei	Our lord's candle / chaparral yucca	5-9	A, C	+ *	FS	5	
GROUNDCOVERS							
Achillea millefolium var. californicum	Yarrow	1-9	A, B, C, D, E, F	!	FS / PS	1	
Carex praegracilis	Slender sedge	1-9	D, E, F, G	o	FS / PS	1	
Elymus triticoides	Creeping wild rye	1-9	B, E, F, G	!	All	2	
Euthamia occidentalis	Western goldenrod	3-9	E, F, G	o	FS / PS	1	
Salvia spathacea	Hummingbird sage	1-9	B, C, E		PS / FS	2	
Solidago californica	California goldenrod	3-9	A, B, F, G	o	FS / PS	1	
Solidago confinis	Southern goldenrod	3-9	E, F, G	o	FS / PS	1	
Stachys bullata	Pink hedgenettle	1-9	E, F, G	+ ~ o	PS / FS	2	
Symphoricarpos mollis	Creeping snowberry	3-9	B, E	!	PS / FS	2	
VINES							
Calystegia macrostegia ssp. arida	Southern California morning glory	3-9	B		FS / PS	1	
Calystegia macrostegia ssp. intermedia	Island morning glory	1-5	A, B		FS / PS	1	
Clematis lasiantha	Pipestems	3-9	A, B		FS / PS	2	
Clematis ligusticifolia	Virgin's bower	3-9	B, E, F, G	o	FS / PS	2	
Vitis girdiana	Desert grape	3-9	G	o	All	2	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON				PLANT COMMUNITIES
											W	SP	SU	F					
	S-D	H	10-25	10-12	X		X	Birds, Butterflies, Bees		Yellow	X	X							CWRF, PFEW
	S/T-D	H	15	15			X	Birds, Butterflies, Bees		Cream	X	X							CWRF
	S	VL	3	3-5	X		X	Birds, Butterflies, Bees		White	X	X	X						AFSS, CH, CLORF, CLOW, CSS, SRW
	S	VL	5	6-8	X		X	Birds, Butterflies, Bees		Lavender/Purple		X	X						CLOW, CSS, WW
	S	VL	4	6	X	X	X	Birds, Butterflies, Bees		Lavender/White	X	X	X						AFSS, CH, CLOW, CSS
	G/P	L	3-4	2			X	Butterflies											DS
	SC	(Not Listed)	3	5		X	X	Birds		Cream		X							AFSS, CH, CLOW, CSS
	P/GC	L	.5-2	3	X		X	Birds, Butterflies, Bees		White		X	X						CLOW, VOW, WW
	P/GC	M	.5-1	2+			X												CLORF, CLOW, CSS, CWRF, SRW, VOW, WW
	G/P/GC	L	2	2+			X	Butterflies											CLORF, CWRF, SRW, VOW, WW
	P/GC	L	2-4	2+			X			Yellow/Green			X	X					AFSS, CSS, CWRF, SRW, VOW, WW
	P/GC	L	1	3+			X	Birds, Butterflies, Bees		Red/Pink	X	X	X						CH, CLORF, CLOW, SRW
	P/GC	M	1	2+			X	Bees, Butterflies		Yellow			X	X					AFSS, CH, CLORF, CLOW, CSS, CWRF, SRW, VOW, WW
	P/GC	M	1	2+				Bees		Yellow		X	X	X					AFSS, CH, CLORF, CLOW, CSS, CWRF, SRW, VOW, WW
	P/GC	L	1-2	2+	X		X	Birds, Butterflies, Bees		Lavender/Purple		X	X	X					CLORF, SRW
	S-D/GC	L	2	2+			X	Birds, Butterflies, Bees		Pink		X	X						CH, CLORF, CLOW, CWRF, SRW, WW
	V/P	L	climbs		X			Bees		White	X	X	X						AFSS, WW
	V/P	L	climbs		X		X	Bees		Pink/White	X	X	X						CSS, WW
	V-D	VL	climbs				X			Cream		X	X						CH, CLORF, CLOW
	V-D	L	climbs				X			Cream			X						AFSS, CH, CLORF, CLOW, CSS, CWRF, SRW, VOW, WW
	V/S-D	L	climbs				X	Birds		Green		X							CLORF, CWRF, SRW, VOW

ALLUVIAL FAN SAGE SCRUB

Alluvial fan sage scrub (AFSS) (Scalebroom Association):

This community is found in rarely flooded, low-gradient deposits along streams. AFSS is a community that tolerates very dry conditions and is considered a 'disturbance' community. Alluvial fan sage scrub should be the signature community along the Tujunga Wash and is appropriate on particularly sandy, silty or gravelly soils.

- Very rare in LA River watershed due to channelization and urbanization.
- Typically found in stream beds or washes.
- Can tolerate periodic flooding.

Figure 176. *Sambucus nigra ssp. caerulea*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=1953423>.

Figure 177. *Lepidospartum squamatum*. Source: Anthony Valois and the National Park Service, http://researchlearningcenter.org/bloom/species/Lepidospartum_squamatum.htm and <https://commons.wikimedia.org/w/index.php?curid=6011633>.

Figure 178. *Artemisia californica*. Source: Daderot, <https://commons.wikimedia.org/w/index.php?curid=75807390>.

Figure 179. *Eriogonum fasciculatum var. fasciculatum*. Source: Dominic, <http://www.inaturalist.org/photos/2067855>.

Figure 180. *Eriodictyon trichocalyx*. Source: Jim Morefield, <https://www.inaturalist.org/photos/14141764>.

Figure 181. *Salvia apiana*. Source: Laura Camp, <https://www.flickr.com/photos/lauracamp/16355349843>.

Figure 182. *Cylindropuntia californica var. parkeri*. Source: Stan Spencer, https://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0409+1587.

Figure 183. *Croton californicus*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=5915540>.

Figure 184. *Yucca whipplei*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=2826038>.



Sambucus nigra ssp. caerulea



Lepidospartum squamatum



Artemisia californica



Eriogonum fasciculatum var. fasciculatum



Eriodictyon trichocalyx



Salvia apiana



Cylindropuntia californica var. parkeri



Croton californicus



Yucca whipplei

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
TREES							
<i>Platanus racemosa</i>	California sycamore	1-9	E, F	+ ^ ~ o	FS	6	
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	1-9	A, B, C	+ ^	FS	8	
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6	
SHRUBS							
<i>Adenostoma fasciculatum</i>	Chamise	3-6, 9	A, C, D	* !	FS	4	
<i>Arctostaphylos glauca</i>	Bigberry manzanita	5-9	B	+	FS	6	
<i>Artemisia californica</i>	California sagebrush	1-6, 9	A, C, D	* !	FS	3	
<i>Berberis nevinii</i>	Nevin's barberry	3-9	A, C, E	+	FS	5	
<i>Brickellia californica</i>	California bricklebrush	5-9	B, C		FS / PS	3	
<i>Ceanothus crassifolius</i>	Hoaryleaf ceanothus	1-9	A, B, C	+ !	FS	6	
<i>Ceanothus leucodermis</i>	Chaparral whitethorn	6-9	B, C	!	FS / PS	6	
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	Mountain mahogany	1-9	B, C	+ !	FS	6	
<i>Dendromecon rigida</i>	Bush poppy	1-6, 9	A, C		FS	5	
<i>Encelia californica</i>	Bush sunflower	1-9	A, C	*!	FS / PS	3	
<i>Ericameria (Happlopappus) pinifolia</i>	Pine goldenbush	5-9	A, C		FS	3	
<i>Eriodictyon crassifolium</i>	Thick-leaved yerba santa	1-9	A, C	+	FS	2	
<i>Eriodictyon trichocalyx</i> var. <i>trichocalyx</i>	Hairy yerba santa	5-9	A, C	+	FS	2	
<i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i>	California buckwheat	1-6, 9	A		FS / PS	4	
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	Leafy California buckwheat	1-9	A, C	+ !	FS / PS	3	
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Interior California buckwheat	3-9	A, C	+ *!	FS / PS	3	
<i>Gutierrezia californica</i>	California matchweed	3-9	A, C		FS	2	
<i>Gutierrezia sarothrae</i>	Matchweed	1-6, 9	A, C, D	*	FS	2	
<i>Juniperus californica</i>	California juniper	6-9	A, C	!	FS	6	
<i>Lepidospartum squamatum</i>	Scale broom	1-9	C, E	+	FS	4	
<i>Malacothamnus davidsonii</i>	Davidson's bush mallow	6-9	A, C, D	+	FS	8	
<i>Malacothamnus fasciculatus</i>	Chaparral bush mallow	1-9	A	+ !	FS	4	
<i>Malosma laurina</i>	Laurel sumac	1-9	A, C	+ !	FS	6	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
													W	SP	SU	F				
	T-D	M	40	40	X	X		Occasional	X	Birds, Butterflies	Yellow/Cream	X	X							
	T	VL / L	40	40	X	X		Occasional	X	Birds, Butterflies	Yellow		X							
	T-D	L	15	20	X	X		Occasional	X	Birds, Butterflies, Bees	Yellow/Cream		X	X						
	S	VL	4-8	6	X			Occasional	X	Birds, Butterflies, Bees	White		X	X						
	T/S	VL	6-15	6-15				Occasional		Birds, Bees	White + Pink	X	X							
	S	VL	3	2-3	X	X	X	Frequent - Occasional	X	Birds, Butterflies	White + Yellow		X	X	X	X				
	S	VL	6-12	6-12			X	Birds, Bees	X	Birds, Bees	Yellow / Green		X							
	S	VL / L	2-4	3-5		X		Frequent - Occasional	X	Butterflies	Yellow				X	X				
	S	(Not Listed)	6-15	8-20				Occasional	X	Birds, Butterflies, Bees	White	X	X							
	S	VL	10-12	10-20				Occasional		Birds, Butterflies, Bees	Blue/Purple +White	X	X							
	T/S	VL	6-20	12	X			Occasional	X	Birds	Yellow/Cream	X	X							
	S	VL	8-12	10-15				Occasional	X	Bees, Butterflies	Yellow	X	X							
	S	VL	3-4	3-6	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow	X	X							
	S	(Not Listed)	3-6	3-6		X		Frequent - Occasional		Birds	Yellow		X	X						
	S	VL	3-6	3+				Occasional	X	Birds, Butterflies, Bees	Lavender		X							
	S	VL	2-5	3+	X	X		Frequent		Butterflies	White				X					
	S/GC	VL	3	2-6		X		Subdominant		Bees, Butterflies	Red/Cream				X					
	S	VL	3-5	2-6	X	X	X	Occasional	X	Birds, Butterflies, Bees	Red/Cream				X					
	S	VL	3-5	2-6				Subdominant	X	Birds, Butterflies, Bees	Pink/Cream				X					
	S	(Not Listed)	1-3	1-3		X		Frequent - Occasional	X	Bees	Yellow		X	X	X	X				
	S	VL	1-3	1-3				Frequent - Occasional	X	Bees	Yellow				X					
	T/S	VL	10-15	15-20				Frequent - Occasional	X											
	S	(Not Listed)	4	6		X		Dominant	X		Cream				X	X				
	S	(Not Listed)	10	8	X			Occasional		Birds, Butterflies	Pink		X	X						
	S	VL	6	6+		X		Occasional	X	Birds, Butterflies	White + Pink		X	X						
	S	VL	10	20	X	X		Occasional	X	Birds	Cream	X	X							

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
SHRUBS (continued)							
<i>Pluchea sericea</i>	Arrow weed	1-9	F, G	o	FS	3	
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Hollyleaf cherry	5-9	A, B, C	+ !	FS / PS	4	
<i>Quercus berberidifolia</i>	Scrub oak	1-9	A, B, C	+ !	FS	6	
<i>Rhamnus crocea</i>	Spiny redberry	5-9	A, B, C	+ !	All	4	
<i>Rhus integrifolia</i>	Lemonadeberry	1-9	A, B, C	+ !	FS / PS	6	
<i>Rhus ovata</i>	Sugar bush	1-9	A, C	+ * !	FS / PS	6	
<i>Salvia apiana</i>	White sage	3-9	A, C, D	+ !	FS	3	
<i>Salvia mellifera</i>	Black sage	1-9	A, C, D	+ !	FS	4	
PERENNIALS							
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	California aster	1-9	A, B		FS	2	
<i>Croton californicus</i>	California croton	1-9	C, E	*	FS	1	
<i>Delphinium cardinale</i>	Scarlet larkspur	1-6, 9	A		FS	2	
<i>Eriastrum densifolium</i> ssp. <i>elongatum</i>	Woolly star	6-9	C, E		FS	1	
<i>Eriophyllum confertiflorum</i>	Golden yarrow	1-9	A, B, C	+	FS / PS	1	
<i>Eschscholzia californica</i>	California poppy	1-9	C, D		FS / PS	1	
<i>Galium angustifolium</i>	Narrow-leaf bedstraw	1-9	A, C		FS / PS	1	
<i>Lotus scoparius</i> (<i>Acmispon glaber</i>)	Deerweed	1-6, 9	A, C	+ *	FS	2	
<i>Mirabilis californica</i> (<i>Mirabilis laevis</i>)	Wishbone bush	1-9	A, C, D	*	FS	2	
<i>Pellaea andromedifolia</i>	Coffee fern	3-9	C, E		PS	1	
<i>Pellaea mucronata</i>	Bird's foot fern	3-9	C, E	*	PS	1	
<i>Penstemon spectabilis</i>	Showy penstemon	1-9	C		FS	2	
<i>Polypodium californicum</i>	California polypody fern	6-9	B, G		PS / FS	1	
<i>Solanum xanti</i>	Purple or chaparral nightshade	1-9	A, C		FS / PS	2	
GRASSES							
<i>Elymus condensatus</i>	Giant wild rye	1-9	A, B, C, E		All	2	
<i>Elymus elymoides</i> var. <i>elymoides</i>	Squirreltail	6-9	C, E		FS	1	
<i>Stipa coronatum</i>	Giant stipa	1-9	A, E, F		FS / PS	2	
<i>Stipa lepida</i>	Foothill needlegrass	1-9	A, B, C, D		FS / PS	1	
<i>Stipa speciosa</i>	Desert needlegrass	3-9	A, C, D, E	*	FS	1	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
													W	SP	SU	F				
	S	M	6-8	6+	X			Occasional	X			Pink		X	X					
	S	VL	6-12	6-12	X			Occasional	X	Birds, Butterflies, Bees		Cream	X	X						
	T/S	VL	8	8		X		Occasional	X	Birds, Butterflies		Cream	X	X						
	S	VL	4	4	X			Occasional	X	Birds, Butterflies, Bees		Yellow/Cream	X	X						
	S	VL	8-10	15	X	X		Occasional	X	Birds		Pink	X	X						
	S	VL	8-10	15	X	X		Occasional	X	Birds		Pink/White	X	X						
	S	VL	3	3-5	X	X		Frequent	X	Birds, Butterflies, Bees		White	X	X	X					
	S	VL	4	6	X	X	X	Occasional	X	Birds, Butterflies, Bees		Lavender/White	X	X	X					
	P	L	1-3	1-3	X			Frequent - Occasional	X	Birds, Butterflies, Bees		Purple/Pink/White	X							
	P	(Not Listed)	.5-1.5	.5-2		X		Frequent	X			Green		X	X					
	P-D	(Not Listed)	2-6	1	X			Occasional		Birds		Red/Yellow			X					
	P	VL	1-2	1-2				Frequent				Lavender			X					
	P	VL	2	1-3			X	Frequent - Occasional	X	Bees, Butterflies		Yellow		X	X	X				
	A/P-D	VL	1	1-2		X		Occasional	X	Birds, Butterflies, Bees		Orange / Yellow		X						
	P	(Not Listed)	1-2	1-2				Frequent				Cream		X	X					
	P	VL	3	3		X		Frequent - Occasional	X	Bees, Butterflies		Yellow	X	X	X					
	P-D	VL	1	3				Frequent - Occasional	X			Purple/White	X	X						
	P	VL	1	2		X		Occasional												
	P	VL	1	2		X		Occasional												
	P	L	3	3				Occasional	X	Birds		Purple/Blue/Pink	X							
	P-D/GC	VL	.5	1+				Occasional	X											
	P-D	VL	2	3				Occasional	X			Purple/Blue	X	X	X					
	G/P/GC	L	4-5	3+	X			Occasional	X	Butterflies										
	G/P/GC	(Not Listed)	1-2	1-2				Occasional												
	G/P/GC	(Not Listed)	2-4	1-2				Occasional	X											
	G/P/GC	VL	2	2		X		Frequent - Occasional	X											
	G/P/GC	(Not Listed)	1-2	1				Occasional												

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
SUCCULENTS							
<i>Cylindropuntia californica</i> var. <i>parkeri</i>	Cane cholla	5-7	A, C	*	FS	4	
<i>Dudleya lanceolata</i>	Lance-leaved live-forever	1-9	A		FS / PS	1	
<i>Opuntia basilaris</i>	Beaver tail	3-5, 9	A, C	*	FS	2	
<i>Opuntia littoralis</i>	Coastal prickly pear	1-9	A		FS	3	
<i>Yucca whipplei</i>	Our lord's candle / chaparral yucca	5-9	A, C	+*	FS	5	
VINES							
<i>Calystegia macrostegia</i> ssp. <i>arida</i>	Southern California morning glory	3-9	B		FS / PS	1	
<i>Clematis ligusticifolia</i>	Virgin's bower	3-9	B, E, F, G	o	FS / PS	2	
<i>Funastrum cynanchoides</i> var. <i>hartwegii</i>	Twining milkweed	6-9	B, E	*	FS / PS	2	
<i>Lathyrus vestitus</i>	Pacific sweet pea	6-9	B		FS / PS	2	
<i>Lathyrus vestitus</i> var. <i>alefeldii</i>	Showy Pacific sweet pea	6-9	B		FS / PS	2	
GROUNDCOVERS							
<i>Euthamia occidentalis</i>	Western goldenrod	3-9	E, F, G	o	FS / PS	1	
<i>Solidago californica</i>	California goldenrod	3-9	A, B, F, G	o	FS / PS	1	
<i>Solidago confinis</i>	Southern goldenrod	3-9	E, F, G	o	FS / PS	1	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON					
																		W	SP	SU	F
	SC	VL	4	4				Subdominant				Yellow / Green		X	X						
	SC	VL	1	1		X		Occasional	X	Birds, Butterflies		Orange / Pink		X	X						
	SC	VL	1-2	2				Occasional				Pink		X							
	SC	VL	3	3+		X		Frequent - Occasional	X	Birds		Orange / Yellow		X							
	SC	(Not Listed)	3	5	X		X	Frequent	X	Birds		Cream		X							
	V/P	L	climbs		X			Occasional		Bees		White	X	X	X						
	V-D	L	climbs		X			Occasional	X			Cream			X						
	V/S-D	L	climbs					Occasional		Butterflies		Maroon/White			X	X					
	V/P	(Not Listed)	climbs			X		Occasional	X			Pink/White	X	X							
	V/P	(Not Listed)	climbs					Occasional				Pink/Purple	X	X							
	P/GC	L	2-4	2+	X			Frequent - Occasional	X			Yellow / Green			X	X					
	P/GC	M	1	2+	X			Frequent - Occasional	X	Bees, Butterflies		Yellow			X	X					
	P/GC	M	1	2+	X			Frequent - Occasional		Bees		Yellow		X	X	X					

COASTAL SAGE SCRUB

Coastal sage scrub (CSS) (California Sagebrush Associations):

Coastal sage scrub (California Sagebrush Associations): This ecologically important community should be interspersed with tree communities along the length of the river, especially in situations where environmental or infrastructure conditions (utility corridors or other confined spaces) are not suitable for trees. CSS is an appropriate complement to the sycamore riparian and coast live oak communities and can be used with them as a transitional planting across an elevational difference or as a successional planting strategy prior to the maturation of tree canopies. Along the lower reaches of the river, this community may be augmented with coastal bluff species, and other salt tolerant native species adapted to heterogeneous soil conditions along the levees. Augmentation to this plant palette should be made only with the approval of a qualified botanist or ecologist.

- Many species can tolerate salt.
- Typically found on embankments and slopes.
- Can be used as a transitional planting prior to maturation of tree canopies in sycamore riparian and coast live oak woodland.

Figure 185. *Sambucus nigra* ssp. *caerulea*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=1953423>.

Figure 186. *Baccharis pilularis* var. *consanguinea*. Source: Miguel Vieira, <https://commons.wikimedia.org/w/index.php?curid=9389145>.

Figure 187. *Artemisia californica*. Source: Daderot, <https://commons.wikimedia.org/w/index.php?curid=75807390>.

Figure 188. *Eriogonum fasciculatum* var. *fasciculatum*. Source: Dominic, <http://www.inaturalist.org/photos/2067855>.

Figure 189. *Isocoma menziesii* ssp. *vernonioides*. Source: Miguel Vieira, <https://commons.wikimedia.org/w/index.php?curid=9389145>.

Figure 190. *Epilobium canum* ssp. *canum*. Source: Krzysztof Ziarnik, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54696863>.

Figure 191. *Corethrogyne filaginifolia* var. *filaginifolia*. Source: John Rusk, https://www.flickr.com/photos/john_d_rusk/21207961929.

Figure 192. *Yucca whipplei*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=2826038>.

Figure 193. *Stipa lepida*. Source: John Rusk, <https://commons.wikimedia.org/w/index.php?curid=59287600>.



Sambucus nigra ssp. *caerulea*



Baccharis pilularis var. *consanguinea*



Artemisia californica



Eriogonum fasciculatum var. *fasciculatum*



Isocoma menziesii ssp. *vernonioides*



Epilobium canum ssp. *canum*



Corethrogyne filaginifolia var. *filaginifolia*



Yucca whipplei



Stipa lepida

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE			
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE SETBACK FROM PAVEMENT (FEET)
TREES							
<i>Sambucus nigra ssp. caerulea</i>	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6	
SHRUBS							
<i>Artemisia californica</i>	California sagebrush	1-6, 9	A, C, D	* !	FS	3	
<i>Atriplex lentiformis ssp. lentiformis</i>	Saltbush	1-5	C, D, E	* !	FS	5	
<i>Baccharis pilularis var. consanguinea</i>	Coyote brush	1-5	A, C, D	* !	FS / PS	4	
<i>Berberis pinnata</i>	California barberry	5-9	B, E, F	+ !	FS / PS	4	
<i>Dendromecon rigida</i>	Bush poppy	1-6, 9	A, C		FS	5	
<i>Diplacus longiflorus</i>	Southern bush monkeyflower	1-9	A, B, C, D, E		FS / PS	3	
<i>Encelia californica</i>	Bush sunflower	1-9	A, C	* !	FS / PS	3	
<i>Ericameria (Happlopappus) pinifolia</i>	Pine goldenbush	5-9	A, C		FS	3	
<i>Eriodictyon crassifolium</i>	Thick-leaved yerba santa	1-9	A, C	+	FS	2	
<i>Eriogonum cinereum</i>	Ashyleaf Buckwheat	1-5	A, C	+	FS	3	
<i>Eriogonum fasciculatum var. fasciculatum</i>	California buckwheat	1-6, 9	A		FS / PS	4	
<i>Eriogonum fasciculatum var. foliolosum</i>	Leafy California buckwheat	1-9	A, C	+ !	FS / PS	3	
<i>Heteromeles arbutifolia</i>	Toyon	1-9	A, B, C, E, F	+ ^ !	FS / PS	6	
<i>Isocoma menziesii ssp. vernonioides</i>	Goldenbush	1-9	A, C		FS / PS	2	
<i>Keckiella cordifolia</i>	Heart-leaved penstemon	1-9	A, B, C, E		All	3	
<i>Malacothamnus fasciculatus</i>	Chaparral bush mallow	1-9	A	+ !	FS	4	
<i>Malosma laurina</i>	Laurel sumac	1-9	A, C	+ !	FS	6	
<i>Mimulus aurantiacus</i>	Bush monkey flower	1-9	A, B, C		FS / PS	2	
<i>Peritoma arborea</i>	Bladderpod	1-9	A, B, C	+ !	FS / PS	4	
<i>Pluchea sericea</i>	Arrow weed	1-9	F, G	o	FS	3	
<i>Prunus ilicifolia ssp. ilicifolia</i>	Hollyleaf cherry	5-9	A, B, C	+ !	FS / PS	4	
<i>Quercus berberidifolia</i>	Scrub oak	1-9	A, B, C	+ !	FS	6	
<i>Rhamnus crocea</i>	Spiny redberry	5-9	A, B, C	+ !	All	4	
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	5-9	A, B, C	+ !	All	5	
<i>Rhus integrifolia</i>	Lemonadeberry	1-9	A, B, C	+ !	FS / PS	6	
<i>Salvia apiana</i>	White sage	3-9	A, C, D	+ !	FS	3	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON								
	T-D	L	15	20	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream		X	X											
	S	VL	3	2-3	X	X	X	Dominant	X	Birds, Butterflies	White + Yellow		X	X	X										
	S	VL	6-8	5-10	X	X		Occasional	X	Birds, Butterflies	Yellow/Brown			X											
	S	L	4-6	6-8	X	X		Subdominant	X	Bees, Butterflies	Yellow/Cream	X	X	X	X										
	S	L	4-6	4+				Occasional	X	Birds, Butterflies, Bees	Yellow	X	X												
	S	VL	8-12	10-15				Occasional	X	Bees, Butterflies	Yellow	X	X												
	S	(Not Listed)	1-3	1-3				Occasional		Bees, Butterflies	Yellow		X	X											
	S	VL	3-4	3-6	X	X		Subdominant	X	Birds, Butterflies, Bees	Yellow	X	X												
	S	(Not Listed)	3-6	3-6		X		Occasional		Birds	Yellow		X	X											
	S	VL	3-6	3+				Occasional	X	Birds, Butterflies, Bees	Lavender		X												
	S	VL	2-4	3-5	X			Occasional	X	Birds, Butterflies, Bees	Yellow/Brown	X	X	X	X										
	S/GC	VL	3	2-6		X		Dominant		Bees, Butterflies	Red/Cream			X											
	S	VL	3-5	2-6	X	X	X	Occasional	X	Birds, Butterflies, Bees	Red/Crea			X											
	S/T	VL	8-15	15	X			Occasional	X	Birds, Bees	White			X											
	S	VL	1-3	3		X		Frequent - Occasional	X	Bees, Butterflies	Yellow		X	X	X										
	P/V-D	VL	4	4				Occasional	X	Birds	Red		X	X											
	S	VL	6	6+		X		Occasional	X	Birds, Butterflies	White + Pink		X	X											
	S	VL	10	20	X	X		Frequent	X	Birds	Cream	X	X												
	S	VL	2	2	X		X	Frequent	X	Birds, Butterflies, Bees	Orange/Yellow	X	X	X											
	S	VL	3-5	5	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Green	X	X												
	S	M	6-8	6+	X			Occasional	X		Pink		X	X											
	S	VL	6-12	6-12	X			Occasional	X	Birds, Butterflies, Bees	Cream	X	X												
	T/S	VL	8	8		X		Occasional	X	Birds, Butterflies	Cream	X	X												
	S	VL	4	4	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X												
	S	VL	6	6	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X												
	S	VL	8-10	15	X	X		Frequent - Occasional	X	Birds	Pink	X	X												
	S	VL	3	3-5	X	X		Occasional	X	Birds, Butterflies, Bees	White	X	X	X											

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SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE				
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)
TREES (continued)								
Salvia leucophylla	Purple sage	1-9	A, C, D	+ * !	FS	5		
Salvia mellifera	Black sage	1-9	A, C, D	+ !	FS	4		
Trichostema lanatum	Woolly blue curls	1-9	E, F, G		FS	3		
PERENNIALS								
Asclepias eriocarpa	Indian milkweed	1-9	C, E, F	+	FS	3		
Asclepias fascicularis	Narrow-leaved milkweed	1-9	C, E, F, G	+	FS / PS	3		
Corethrogyne filaginifolia var. filaginifolia	California aster	1-9	A, B		FS	2		
Croton californicus	California croton	1-9	C, E	*	FS	1		
Delphinium cardinale	Scarlet larkspur	1-6, 9	A		FS	2		
Epilobium canum ssp. canum	Hoary California fuchsia	1-9	A, B	+	FS / PS	2		
Epilobium canum ssp. latifolium	California fuchsia	1-9	A, B	+	FS / PS	2		
Eriophyllum confertiflorum	Golden yarrow	1-9	A, B, C	+	FS / PS	1		
Eschscholzia californica	California poppy	1-9	C, D		FS / PS	1		
Linanthus californicus	Prickly phlox	1-9	A, B, E, F		FS / PS	2		
Lotus scoparius (Acmispon glaber)	Deerweed	1-6, 9	A, C	+ *	FS	2		
Lupinus latifolius var. parishii	Broad-leaf canyon lupine	6-9	B, E, F	+ o	FS / PS	2		
Malacothrix saxatilis	Cliff aster	1-9	A, B, C, D	+	FS	1		
Mirabilis californica (Mirabilis laevis)	Wishbone bush	1-9	A, C, D	*	FS	2		
Pellaea andromedifolia	Coffee fern	3-9	C, E		PS	1		
Pellaea mucronata	Bird's foot fern	3-9	C, E	*	PS	1		
Penstemon spectabilis	Showy penstemon	1-9	C		FS	2		
Polypodium californicum	California polypody fern	6-9	B, G		PS / FS	1		
Romneya coulteri	Coulter's Matilija poppy	1-9	A, C, D, E	*	FS	3		
Sisyrinchium bellum	Blue-eyed grass	1-9	E, F, G	o	FS / PS	1		
Solanum xanti	Purple or chaparral nightshade	1-9	A, C		FS / PS	2		
GRASSES								
Bromus carinatus var. carinatus	California brome	1-9	A, B, C, E, F, G	* !	FS / PS	1		
Elymus condensatus	Giant wild rye	1-9	A, B, C, E		All	2		
Elymus glaucus ssp. glaucus	Blue wild rye	1-9	A, B, C, E, F, G	+	All	3		

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
													W	SP	SU	F				
	S	VL	5	6-8	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Lavender/Purple		X	X						
	S	VL	4	6	X	X	X	Frequent	X	Birds, Butterflies, Bees	Lavender/White	X	X	X						
	S	VL	2-4	4				Occasional	X	Birds, Butterflies, Bees	Pink/Blue/Lavender	X	X							
	P-D	VL	3	1+		X		Occasional	X	Birds, Butterflies	Cream/Pink				X					
	P-D	VL	3	2+		X		Occasional	X	Birds, Butterflies	White, Lavender				X	X				
	P	L	1-3	1-3	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Purple/Pink/White	X								
	P	(Not Listed)	.5-1.5	.5-2		X		Occasional	X		Green			X	X					
	P-D	(Not Listed)	2-6	1				Occasional		Birds	Red/Yellow				X					
	P	VL	1-3	2-4	X			Frequent		Birds, Butterflies	Red				X					
	P	VL	1-3	2-4	X			Occasional	X	Birds, Butterflies	Red				X	X				
	P	VL	2	1-3			X	Frequent - Occasional	X	Bees, Butterflies	Yellow			X	X	X				
	A/P-D	VL	1	1-2		X		Frequent	X	Birds, Butterflies, Bees	Orange / YellowP			X						
	P	M	2	2				Occasional		Bees, Butterflies	Lavender	X	X	X						
	P	VL	3	3		X		Frequent	X	Bees, Butterflies	Yellow	X	X	X						
	P	L	4	4				Occasional	X	Bees, Butterflies	Blue/Purple		X							
	P	M	1-2	1-2				Occasional		Bees, Butterflies	White	X			X	X				
	P-D	VL	1	3				Frequent - Occasional	X		Purple/White	X	X							
	P	VL	1	2		X		Frequent												
	P	VL	1	2		X		Occasional												
	P	L	3	3				Occasional	X	Birds	Purple/Blue/Pink	X								
	P-D/GC	VL	.5	1+				Occasional	X											
	P	VL	6-8	6-8				Frequent	X	Bees, Butterflies	White/Yellow			X	X					
	P-D	L	1	1				Frequent - Occasional	X	Butterflies	Purple	X	X							
	P-D	VL	2	3				Frequent	X		Purple/Blue	X	X	X						
	G/P/GC	(Not Listed)	1.5-3	1+				Frequent	X	Butterflies	Yellow			X						
	G/P/GC	L	4-5	3+	X			Occasional	X	Butterflies										
	G/P/GC	L	1.5-3	1+				Occasional	X	Butterflies										

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME	FRAMES FOR BEST PERFORMANCE					CONSTRUCTED CONTEXTS		APPLICATIONS		SUN EXPOSURE		SETBACK FROM PAVEMENT	
GRASSES (continued)															
Stipa coronatum	Giant stipa	1-9	A, E, F					FS / PS	2						
Stipa lepida	Foothill needlegrass	1-9	A, B, C, D					FS / PS	1						
SUCCULENTS															
Dudleya lanceolata	Lance-leaved live-forever	1-9	A					FS / PS	1						
Dudleya pulverulenta	Chalk dudleya	1-9	A, B	*				FS / PS	1						
Yucca whipplei	Our lord's candle / chaparral yucca	5-9	A, C	+ *				FS	5						
VINES															
Calystegia macrostegia ssp. arida	Southern California morning glory	3-9	B					FS / PS	1						
Clematis ligusticifolia	Virgin's bower	3-9	B, E, F, G	o				FS / PS	2						
Funastrum cynanchoides var. hartwegii	Twining milkweed	6-9	B, E	*				FS / PS	2						
Lathyrus vestitus	Pacific sweet pea	6-9	B					FS / PS	2						
Lathyrus vestitus var. alefeldii	Showy Pacific sweet pea	6-9	B					FS / PS	2						
GROUNDCOVERS															
Carex praegracilis	Slender sedge	1-9	D, E, F, G	o				FS / PS	1						
Euthamia occidentalis	Western goldenrod	3-9	E, F, G	o				FS / PS	1						
Solidago californica	California goldenrod	3-9	A, B, F, G	o				FS / PS	1						

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON			
														W	SP	SU	F
	G/P/GC	(Not Listed)	2-4	1-2				Occasional	X								
	G/P/GC	VL	2	2		X		Frequent - Occasional	X								
	SC	VL	1	1		X		Occasional	X	Birds, Butterflies	Orange / Pink				X	X	
	SC	VL	1	1		X		Occasional	X	Birds, Bees	Orange/Pink/Red						
	SC	(Not Listed)	3	5	X		X	Frequent - Occasional	X	Birds	Cream				X		
	V/P	L	climbs			X		Frequent - Occasional		Bees	White			X	X	X	
	V-D	L	climbs			X		Occasional	X		Cream					X	
	V/S-D	L	climbs					Occasional		Butterflies	Maroon/White					X	X
	V/P	(Not Listed)	climbs			X		Occasional	X		Pink/White			X	X		
	V/P	(Not Listed)	climbs					Occasional			Pink/Purple			X	X		
	P/GC	M	.5-1	2+	X			Occasional	X								
	P/GC	L	2-4	2+	X			Frequent - Occasional	X		Yellow / Green					X	X
	P/GC	M	1	2+	X			Frequent - Occasional	X	Bees, Butterflies	Yellow					X	X

CHAPARRAL

Chaparral (CH) (Chaparral Associations):

Chaparral (Chaparral Associations): Chaparral is considered an upland or drier community that is found on all slope aspects. CH soils are typically shallow and often nutrient-poor. It is suitable as an occasional alternative to the coastal sage scrub and California walnut woodland communities. This community includes tree-like shrubs that can provide some shading in tree-restricted zones. Rigorous design and maintenance of CH plantings can minimize fire hazards associated with this plant community.

- Requires fast draining, nutrient poor soil that is typical of slopes.
- Many species are deciduous in the summer, and over-watering during this time severely compromises the plants' survival.
- Can generally tolerate heat and drier conditions.

Figure 194. *Juglans californica*. Source: Consultaplanas, <https://commons.wikimedia.org/w/index.php?curid=44978241>.

Figure 195. *Cercocarpus betuloides*. Source: Lazaregagnidze, <https://commons.wikimedia.org/w/index.php?curid=32918241>.

Figure 196. *Ceanothus oliganthus*. Source: Anthony Valois and the National Park Service, 2004. http://researchlearningcenter.org/bloom/species/Ceanothus_oliganthus.htm.

Figure 197. *Prunus ilicifolia* ssp. *ilicifolia*. Source: John Rusk, <https://commons.wikimedia.org/w/index.php?curid=59290247>.

Figure 198. *Heteromeles arbutifolia*. Source: Miguel Vieira, <https://commons.wikimedia.org/w/index.php?curid=19525268>.

Figure 199. *Rhus ovata*. Source: Bri Weldon, <https://www.flickr.com/photos/briweldon/5228764249>.

Figure 200. *Eriophyllum confertiflorum*. Source: Björn S., <https://www.flickr.com/photos/40948266@N04/43163438812>.

Figure 201. *Lotus scoparius* (*Acmispon glaber*). Source: glmory, <https://commons.wikimedia.org/w/index.php?curid=32092287>.

Figure 202. *Stipa pulchra*. Source: Matt Lavin, https://www.flickr.com/photos/plant_diversity/35034340452.



Juglans californica



Cercocarpus betuloides



Ceanothus oliganthus



Prunus ilicifolia ssp. *ilicifolia*



Heteromeles arbutifolia



Rhus ovata



Eriophyllum confertiflorum



Lotus scoparius (*Acmispon glaber*)



Stipa pulchra

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
TREES							
<i>Adenostoma sparsifolium</i>	Red shanks	3-9	A, C, E	+ * !	FS	5	
<i>Juglans californica</i> var. <i>californica</i>	California walnut	3-9	B, E, F	+ ^ !	FS / PS	6	
SHRUBS							
<i>Adenostoma fasciculatum</i>	Chamise	3-6, 9	A, C, D	* !	FS	4	
<i>Arctostaphylos glandulosa</i>	Eastwood manzanita	5-9	B	+	FS / PS	6	
<i>Arctostaphylos glauca</i>	Bigberry manzanita	5-9	B	+	FS	6	
<i>Artemisia californica</i>	California sagebrush	1-6, 9	A, C, D	* !	FS	3	
<i>Ceanothus crassifolius</i>	Hoaryleaf ceanothus	1-9	A, B, C	+ !	FS	6	
<i>Ceanothus cuneatus</i>	Buck brush	1-9	A, B, C	+ !	FS	5	
<i>Ceanothus leucodermis</i>	Chaparral whitethorn	5-9	B	+ !	FS / PS	6	
<i>Ceanothus megacarpus</i>	Big-pod ceanothus	1-9	A, B, C	+ !	FS	6	
<i>Ceanothus oliganthus</i>	Hairy ceanothus	1-9	A, B, C	+ !	FS	6	
<i>Ceanothus spinosus</i>	Greenbark ceanothus	1-9	A, C	+ !	FS / PS	6	
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	Mountain mahogany	1-9	B, C	+ !	FS	6	
<i>Dendromecon rigida</i>	Bush poppy	1-6, 9	A, C		FS	5	
<i>Diplacus longiflorus</i>	Southern bush monkeyflower	1-9	A, B, C, D, E		FS / PS	3	
<i>Eriogonum cinereum</i>	Ashyleaf Buckwheat	1-5	A, C	+	FS	3	
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	Leafy California buckwheat	1-9	A, C	+ !	FS / PS	3	
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Interior California buckwheat	3-9	A, C	+ * !	FS / PS	3	
<i>Frangula californica</i> ssp. <i>californica</i>	California coffeeberry	1-9	A, B, C, D	* !	All	6	
<i>Heteromeles arbutifolia</i>	Toyon	1-9	A, B, C, E, F	+ ^ !	FS / PS	6	
<i>Isocoma menziesii</i> ssp. <i>vernonioides</i>	Goldenbush	1-9	A, C		FS / PS	2	
<i>Keckiella cordifolia</i>	Heart-leaved penstemon	1-9	A, B, C, E		All	3	
<i>Lepechinia fragrans</i>	Fragrant pitcher sage	3-9	A, B, C	+ * !	FS / PS	3	
<i>Lonicera subspicata</i> var. <i>denudata</i>	Chaparral honeysuckle	1-9	A, B		FS	2	
<i>Malosma laurina</i>	Laurel sumac	1-9	A, C	+ !	FS	6	
<i>Mimulus aurantiacus</i>	Bush monkey flower	1-9	A, B, C		FS / PS	2	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
													W	SP	SU	F	W	SP	SU	F
	T/S	VL	8-20	15				Occasional	X	Birds, Bees	White				X	X				
	T-D	L	15-25	20	X	X		Occasional	X	Birds	Yellow		X							
	S	VL	4-8	6	X			Occasional	X	Birds, Butterflies, Bees	White		X	X						
	S	VL	3-12	8				Occasional		Birds, Butterflies, Bees	White + Pink	X	X							
	T/S	VL	6-15	6-15				Occasional		Birds, Bees	White + Pink	X	X							
	S	VL	3	2-3	X	X	X	Frequent	X	Birds, Butterflies	White + Yellow		X	X	X	X				
	S	(Not Listed)	6-15	8-20				Frequent	X	Birds, Butterflies, Bees	White	X	X							
	S	VL	5-12	5-12				Occasional	X	Birds, Butterflies, Bees	White	X	X	X						
	S	VL	10-12	10-20				Occasional	X	Birds, Butterflies, Bees	Blue/Lavender	X	X							
	S	VL	6-15	8-20				Subdominant	X	Birds, Butterflies, Bees	White/Lavender	X	X							
	S	(Not Listed)	8-10	8-10				Occasional	X	Birds, Butterflies, Bees	Blue/Purple	X	X							
	S/T	VL	8-20	10-20				Subdominant	X	Birds, Butterflies, Bees	Blue/White	X	X							
	T/S	VL	6-20	12	X			Frequent	X	Birds	Yellow/Cream	X	X							
	S	VL	8-12	10-15				Occasional	X	Bees, Butterflies	Yellow	X	X							
	S	(Not Listed)	1-3	1-3				Occasional		Bees, Butterflies	Yellow		X	X						
	S	VL	2-4	3-5	X			Occasional	X	Birds, Butterflies, Bees	Yellow/Brown	X	X	X	X	X				
	S	VL	3-5	2-6	X	X	X	Occasional	X	Birds, Butterflies, Bees	Red/Cream				X					
	S	VL	3-5	2-6				Subdominant	X	Birds, Butterflies, Bees	Pink/Cream				X					
	S	VL	8	12	X			Frequent	X	Birds, Butterflies, Bees	Cream		X	X						
	S/T	VL	8-15	15	X			Subdominant	X	Birds, Bees	White				X					
	S	VL	1-3	3		X		Occasional	X	Bees, Butterflies	Yellow		X	X	X	X				
	P/V-D	VL	4	4				Occasional	X	Birds	Red		X	X						
	S	L	3-5	3-5				Occasional	X	Birds, Butterflies	Purple/Lavender		X	X	X	X				
	V/S	L	climbs					Occasional	X	Birds	Yellow/Cream		X	X						
	S	VL	10	20	X	X		Occasional	X	Birds	Cream	X	X							
	S	VL	2	2	X		X	Occasional	X	Birds, Butterflies, Bees	Orange/Yellow	X	X	X						

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	FRAMES FOR BEST PERFORMANCE						CONSTRUCTED CONTEXTS		APPLICATIONS		SUN EXPOSURE		SETBACK FROM PAVEMENT	
		FRAMES FOR BEST PERFORMANCE		CONSTRUCTED CONTEXTS		APPLICATIONS		SUN EXPOSURE		SETBACK FROM PAVEMENT					
SHRUBS (continued)															
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Hollyleaf cherry	5-9	A, B, C	+	!	FS / PS	4								
<i>Quercus berberidifolia</i>	Scrub oak	1-9	A, B, C	+	!	FS	6								
<i>Rhamnus crocea</i>	Spiny redberry	5-9	A, B, C	+	!	All	4								
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	5-9	A, B, C	+	!	All	5								
<i>Rhus aromatica</i>	Fragrant sumac	1-9	A, B, C, E, F	+		FS / PS	4								
<i>Rhus integrifolia</i>	Lemonadeberry	1-9	A, B, C	+	!	FS / PS	6								
<i>Rhus ovata</i>	Sugar bush	1-9	A, C	+	* !	FS / PS	6								
<i>Ribes californicum</i> var. <i>hesperium</i>	Hillside gooseberry	3-9	B, F, G	+		PS	4								
<i>Ribes malvaceum</i> var. <i>viridifolium</i>	Chaparral currant	3-9	B, F	+		PS	3								
<i>Ribes speciosum</i>	Fuchsia-flowered gooseberry	3-9	B, F	+		PS / FS	4								
<i>Romneya coulteri</i>	Coulter's Matilija poppy	1-9	A, C, D, E	*		FS	3								
<i>Salvia apiana</i>	White sage	3-9	A, C, D	+	!	FS	3								
<i>Salvia mellifera</i>	Black sage	1-9	A, C, D	+	!	FS	4								
<i>Trichostema lanatum</i>	Woolly blue curls	1-9	E, F, G			FS	3								
PERENNIALS															
<i>Acourtia microcephala</i>	Sacapellote	1-9	A, B, C	+		FS	1								
<i>Asclepias eriocarpa</i>	Indian milkweed	1-9	C, E, F	+		FS	3								
<i>Asclepias fascicularis</i>	Narrow-leaved milkweed	1-9	C, E, F, G	+		FS / PS	3								
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	California aster	1-9	A, B			FS	2								
<i>Delphinium cardinale</i>	Scarlet larkspur	1-6; 9	A, C, E			FS	2								
<i>Epilobium canum</i> ssp. <i>canum</i>	Hoary California fuchsia	1-9	A, B	+		FS / PS	2								
<i>Epilobium canum</i> ssp. <i>latifolium</i>	California fuchsia	1-9	A, B	+		FS / PS	2								
<i>Eriogonum elongatum</i>	Longstem buckwheat	1-9	A, B, C	+		FS	1								
<i>Eriophyllum confertiflorum</i>	Golden yarrow	1-9	A, B, C	+		FS / PS	1								
<i>Lotus scoparius</i> (<i>Acmispon glaber</i>)	Deerweed	1-6, 9	A, C	+	*	FS	2								
<i>Lupinus longifolius</i>	Blue bush lupine	1-9	A, B			FS / PS	2								

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON						
																				W	SP	SU	F
	S	VL	6-12	6-12	X			Subdominant	X	Birds, Butterflies, Bees	Cream	X	X										
	T/S	VL	8	8		X		Subdominant	X	Birds, Butterflies	Cream	X	X										
	S	VL	4	4	X			Frequent	X	Birds, Butterflies, Bees	Yellow/Cream	X	X										
	S	VL	6	6	X			Frequent	X	Birds, Butterflies, Bees	Yellow/Cream	X	X										
	S-D	L	3-5	4-8		X		Occasional		Birds	Yellow/Cream		X										
	S	VL	8-10	15	X	X		Frequent	X	Birds	Pink	X	X										
	S	VL	8-10	15	X	X		Frequent	X	Birds	Pink/White	X	X										
	S-D	L	5	5-8	X	X		Occasional	X	Birds, Butterflies, Bees	Purple/Yellow	X	X										
	S-D	VL	5-8	5		X		Occasional	X	Birds, Butterflies, Bees	Pink/Purple	X	X										
	S-D	VL	5-8	6-8	X	X		Occasional	X	Birds, Butterflies, Bees	Red/Pink	X	X										
	P	VL	6-8	6-8				Frequent	X	Bees, Butterflies	White/Yellow		X	X									
	S	VL	3	3-5	X	X		Occasional	X	Birds, Butterflies, Bees	White	X	X	X									
	S	VL	4	6	X	X	X	Frequent	X	Birds, Butterflies, Bees	Lavender/White	X	X	X									
	S	VL	2-4	4				Occasional	X	Birds, Butterflies, Bees	Pink/Blue/Lavender	X	X										
	P	(Not Listed)	4	1				Occasional		Butterflies	Pink				X								
	P-D	VL	3	1+		X		Occasional	X	Birds, Butterflies	Cream/Pink				X								
	P-D	VL	3	2+		X		Occasional	X	Birds, Butterflies	White, Lavender				X	X							
	P	L	1-3	1-3	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Purple/Pink/White	X											
	P-D	(Not Listed)	2-6	1				Occasional		Birds, Bees	Red/Yellow		X	X									
	P	VL	1-3	2-4	X			Occasional		Birds, Butterflies	Red				X	X							
	P	VL	1-3	2-4	X			Occasional	X	Birds, Butterflies	Red				X	X							
	P	VL	6	1				Occasional		Birds, Butterflies, Bees	Cream/Pink				X	X							
	P	VL	2	1-3			X	Frequent	X	Bees, Butterflies	Yellow		X	X	X	X							
	P	VL	3	3		X		Frequent	X	Bees, Butterflies	Yellow	X	X	X	X								
	P	(Not Listed)	4	4		X		Occasional		Birds, Bees	Purple/Blue	X	X	X	X	X							

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
PERENNIALS (continued)							
<i>Penstemon centranthifolius</i>	Scarlet bugler	1-9	A, B, C, E, F	+	FS	2	
<i>Penstemon heterophyllus</i> var. <i>australis</i>	Foothill penstemon	1-3; 6-9	A, B, C		FS / PS	1	
<i>Penstemon spectabilis</i>	Showy penstemon	1-9	C		FS	2	
<i>Solanum xanti</i>	Purple or chaparral nightshade	1-9	A, C		FS / PS	2	
GRASSES							
<i>Bothriochloa barbinodis</i>	Cane bluegrass	1-9	A, C		FS	1	
<i>Bromus carinatus</i> var. <i>carinatus</i>	California brome	1-9	A, B, C, E, F, G	*!	FS / PS	1	
<i>Elymus condensatus</i>	Giant wild rye	1-9	A, B, C, E		All	2	
<i>Elymus glaucus</i> ssp. <i>glaucus</i>	Blue wild rye	1-9	A, B, C, E, F, G	+	All	3	
<i>Muhlenbergia rigens</i>	Deergrass	1-9	A, B, C, E, F		FS / PS	3	
<i>Stipa cernua</i>	Nodding needlegrass	1-9	A, B, C, E		FS / PS	1	
<i>Stipa coronatum</i>	Giant stipa	1-9	A, E, F		FS / PS	2	
<i>Stipa lepida</i>	Foothill needlegrass	1-9	A, B, C, D		FS / PS	1	
<i>Stipa pulchra</i>	Purple needlegrass	1-9	A, B, C, E	*!	FS / PS	1	
SUCCULENTS							
<i>Dudleya pulverulenta</i>	Chalk dudleya	1-9	A, B	*	FS / PS	1	
<i>Yucca whipplei</i>	Our lord's candle / chaparral yucca	5-9	A, C	+ *	FS	5	
VINES							
<i>Clematis lasiantha</i>	Pipestems	3-9	A, B		FS / PS	2	
<i>Clematis ligusticifolia</i>	Virgin's bower	3-9	B, E, F, G	o	FS / PS	2	
<i>Lathyrus vestitus</i>	Pacific sweet pea	6-9	B		FS / PS	2	
<i>Lathyrus vestitus</i> var. <i>alefeldii</i>	Showy Pacific sweet pea	6-9	B		FS / PS	2	
GROUNDCOVERS							
<i>Salvia spathacea</i>	Hummingbird sage	1-9	B, C, E		PS / FS	2	
<i>Solidago californica</i>	California goldenrod	3-9	A, B, F, G	o	FS / PS	1	
<i>Solidago confinis</i>	Southern goldenrod	3-9	E, F, G	o	FS / PS	1	
<i>Symphoricarpos mollis</i>	Creeping snowberry	3-9	B, E	!	PS / FS	2	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON			
												W	SP	SU	F		
	P	L	1	1-2				Occasional	X	Birds, Butterflies, Bees	Red		X	X			
	P	L	1	2				Occasional	X	Birds, Butterflies, Bees	Purple/Blue	X	X	X			
	P	L	3	3				Occasional	X	Birds	Purple/Blue/Pink	X					
	P-D	VL	2	3				Frequent	X		Purple/Blue	X	X	X			
	G/P/GC	L	2-4	1				Occasional	X		Yellow	X	X	X	X		
	G/P/GC	(Not Listed)	1.5-3	1+				Frequent	X	Butterflies	Yellow		X				
	G/P/GC	L	4-5	3+	X			Occasional	X	Butterflies							
	G/P/GC	L	1.5-3	1+				Occasional	X	Butterflies							
	G/P/GC	L	3	4	X			Occasional	X	Birds							
	G/P/GC	VL	2	2				Occasional	X								
	G/P/GC	(Not Listed)	2-4	1-2				Occasional	X								
	G/P/GC	VL	2	2		X		Occasional	X								
	G/P/GC	VL	2	2		X		Occasional	X	Butterflies	Cream		X				
	SC	VL	1	1		X		Occasional	X	Birds, Bees	Orange/Pink/Red						
	SC	(Not Listed)	3	5	X		X	Frequent	X	Birds	Cream		X				
	V-D	VL	climbs		X			Occasional	X		Cream		X	X			
	V-D	L	climbs		X			Occasional	X		Cream			X			
	V/P	(Not Listed)	climbs			X		Occasional	X		Pink/White	X	X				
	V/P	(Not Listed)	climbs					Occasional			Pink/Purple	X	X				
	P/GC	L	1	3+	X			Occasional	X	Birds, Butterflies, Bees	Red/Pink	X	X	X			
	P/GC	M	1	2+	X			Frequent - Occasional	X	Bees, Butterflies	Yellow			X	X		
	P/GC	M	1	2+	X			Frequent - Occasional		Bees	Yellow		X	X	X		
	S-D/GC	L	2	2+	X			Occasional	X	Birds, Butterflies, Bees	Pink		X	X			

SOUTHERN COAST LIVE OAK RIPARIAN FOREST

Southern coast live oak riparian forest (CLORF) (Coast Live Oak Association):

This forest community is found along bottomlands and outer floodplains along larger streams on fine-grained, rich alluvium. This community differs structurally from coast live oak riparian woodland in having a relatively closed tree canopy at maturity, and thus supports understory species adapted to partial or full shade. CLORF may be appropriate for relatively moist zones, particularly with north-facing slopes, such as in the Sepulveda Basin vicinity.

- Understory is adapted to partial or full shade.
- Typically found in stream beds, moist areas, or north-facing slopes.
- Can tolerate periodic flooding.

Figure 203. *Quercus agrifolia*. Source: Stickpen, <https://commons.wikimedia.org/w/index.php?curid=9944130>.

Figure 204. *Fraxinus velutina* var. *coriacea*. Source: Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=75992775>.

Figure 205. *Platanus racemosa*. Source: Raffi Kojian, <http://www.gardenology.org>, <https://commons.wikimedia.org/w/index.php?curid=9705655>.

Figure 206. *Populus trichocarpa*. Source: Daniel Mayer, <https://commons.wikimedia.org/w/index.php?curid=7381945>.

Figure 207. *Keckiella cordifolia*. Source: Björn S., [https://commons.wikimedia.org/wiki/File:Heartleaf_Keckiella_-_Keckiella_cordifolia_\(43818527031\).jpg](https://commons.wikimedia.org/wiki/File:Heartleaf_Keckiella_-_Keckiella_cordifolia_(43818527031).jpg)

Figure 208. *Ribes aureum* var. *gracillimum*. Source: John Rusk, https://www.flickr.com/photos/john_d_rusk/8941180855.

Figure 209. *Artemisia douglasiana*. Source: Römert, <https://commons.wikimedia.org/w/index.php?curid=19802958>.

Figure 210. *Rosa californica*. Source: Bill Leikam, <https://commons.wikimedia.org/w/index.php?curid=40893617>.

Figure 211. *Dryopteris arguta*. Source: John Rusk, <https://commons.wikimedia.org/w/index.php?curid=59291429>.



Quercus agrifolia



Fraxinus velutina var. *coriacea*



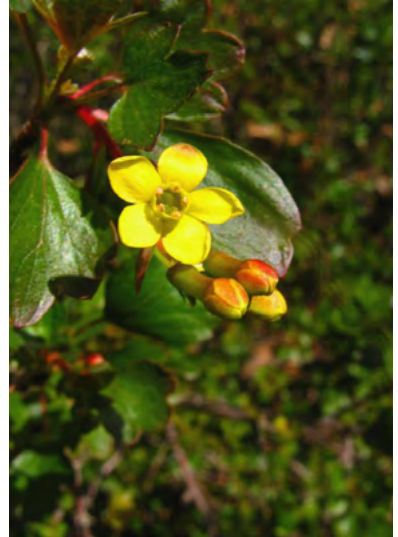
Platanus racemosa



Populus trichocarpa



Keckiella cordifolia



Ribes aureum var. *gracillimum*



Artemisia douglasiana



Rosa californica



Dryopteris arguta

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
TREES							
<i>Acer negundo</i>	Box elder	5-9	E, F, G	+ ^ ~ o	FS / PS	6	
<i>Fraxinus velutina</i> var. <i>coriacea</i>	Velvet ash	1-9	B, E, F, G	+ ^ ! o	FS / PS	6	
<i>Juglans californica</i> var. <i>californica</i>	California walnut	3-9	B, E, F	+ ^ !	FS / PS	6	
<i>Platanus racemosa</i>	California sycamore	1-9	E, F	+ ^ ~ o	FS	6	
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	1-9	F, G	+ ^ ~ o	FS	8	
<i>Populus trichocarpa</i>	Black cottonwood	1-9	F, G	+ ^ ~ o	FS	8	
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	1-9	A, B, C	+ ^	FS	8	
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6	
<i>Umbellularia californica</i>	California bay laurel	1-9	B, E, F	+ ^ !	FS / PS	6	
SHRUBS							
<i>Amorpha fruticosa</i>	indigobush	1-9	B, F, G	+ ~ o	FS / PS	3	
<i>Artemisia californica</i>	California sagebrush	1-6, 9	A, C, D	* !	FS	3	
<i>Baccharis pilularis</i> var. <i>consanguinea</i>	Coyote brush	1-5	A, C, D	* !	FS / PS	4	
<i>Baccharis salicifolia</i>	Mulefat	1-9	F, G	+ ~ o	All	3	
<i>Berberis pinnata</i>	California barberry	5-9	B, E, F	+ !	FS / PS	4	
<i>Ceanothus oliganthus</i>	Hairy ceanothus	1-9	A, B, C	+ !	FS	6	
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	Leafy California buckwheat	1-9	A, C	+ !	FS / PS	3	
<i>Frangula californica</i> ssp. <i>californica</i>	California coffeeberry	1-9	A, B, C, D	* !	All	6	
<i>Heteromeles arbutifolia</i>	Toyon	1-9	A, B, C, E, F	+ ^ !	FS / PS	6	
<i>Isocoma menziesii</i> ssp. <i>vernonioides</i>	Goldenbush	1-9	A, C		FS / PS	2	
<i>Keckiella cordifolia</i>	Heart-leaved penstemon	1-9	A, B, C, E		All	3	
<i>Lonicera subspicata</i> var. <i>denudata</i>	Chaparral honeysuckle	1-9	A, B		FS	2	
<i>Malosma laurina</i>	Laurel sumac	1-9	A, C	+ !	FS	6	
<i>Mimulus aurantiacus</i>	Bush monkey flower	1-9	A, B, C		FS / PS	2	
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Hollyleaf cherry	5-9	A, B, C	+ !	FS / PS	4	
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	5-9	A, B, C	+ !	All	5	
<i>Rhus aromatica</i>	Fragrant sumac	1-9	A, B, C, E, F	+	FS / PS	4	
<i>Rhus integrifolia</i>	Lemonadeberry	1-9	A, B, C	+ !	FS / PS	6	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)				SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
SHRUBS (continued)							
<i>Ribes aureum</i> var. <i>gracillimum</i>	Golden currant	3-9	A, B, C, E, F		FS / PS	3	
<i>Ribes californicum</i> var. <i>hesperium</i>	Hillside gooseberry	3-9	B, F, G	+	PS	4	
<i>Ribes speciosum</i>	Fuchsia-flowered gooseberry	3-9	B, F	+	PS / FS	4	
<i>Rosa californica</i>	California wild rose	1-9	E, F, G		All	3	
<i>Salvia apiana</i>	White sage	3-9	A, C, D	+ !	FS	3	
<i>Venegasia carpesioides</i>	Canyon sunflower	1-9	B, E, F	+ !	All	3	
PERENNIALS							
<i>Artemisia douglasiana</i>	Mugwort	1-9	A, B, C, E	! ~ o	All	3	
<i>Dryopteris arguta</i>	Coastal wood fern	1-9	E, F, G	o	PS / FS	1	
<i>Eriophyllum confertiflorum</i>	Golden yarrow	1-9	A, B, C	+	FS / PS	1	
<i>Juncus patens</i>	California grey rush	1-9	E, F, G	~ o	FS / PS	2	
<i>Juncus torreyi</i>	Rush	1-9	E, F, G	~ o	FS / PS	1-2	
<i>Lotus scoparius</i> (<i>Acmispon glaber</i>)	Deerweed	1-6, 9	A, C	+ *	FS	2	
<i>Lupinus latifolius</i> var. <i>parishii</i>	Broad-leaf canyon lupine	6-9	B, E, F	+ o	FS / PS	2	
<i>Thalictrum fendleri</i> var. <i>polycarpum</i>	Meadow rue	6-9	B, F, G	o	PS / FS	2	
GRASSES							
<i>Agrostis exarata</i>	Bent grass	1-9	A, B, C, E, F, G		FS / PS	1-2	
<i>Bromus carinatus</i> var. <i>carinatus</i>	California brome	1-9	A, B, C, E, F, G	* !	FS / PS	1	
<i>Elymus condensatus</i>	Giant wild rye	1-9	A, B, C, E		All	2	
<i>Elymus glaucus</i> ssp. <i>glaucus</i>	Blue wild rye	1-9	A, B, C, E, F, G	+	All	3	
<i>Muhlenbergia rigens</i>	Deergrass	1-9	A, B, C, E, F		FS / PS	3	
VINES							
<i>Clematis lasiantha</i>	Pipestems	3-9	A, B		FS / PS	2	
<i>Clematis ligusticifolia</i>	Virgin's bower	3-9	B, E, F, G	o	FS / PS	2	
<i>Lathyrus vestitus</i>	Pacific sweet pea	6-9	B		FS / PS	2	
<i>Vitis girdiana</i>	Desert grape	3-9	G	o	All	2	
GROUNDCOVERS							
<i>Carex praegracilis</i>	Slender sedge	1-9	D, E, F, G	o	FS / PS	1	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)			MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON			
															W	SP	SU	F
	S-D	VL	6-8	6-8	X	X	X	Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X					
	S-D	L	5	5-8	X	X		Occasional	X	Birds, Butterflies, Bees	Purple/Yellow	X	X					
	S-D	VL	5-8	6-8	X	X		Occasional	X	Birds, Butterflies, Bees	Red/Pink	X	X					
	S	L	4-6	4+	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Pink		X	X				
	S	VL	3	3-5	X	X		Occasional	X	Birds, Butterflies, Bees	White	X	X	X				
	S	L	4	4				Occasional	X	Birds, Bees	Yellow	X	X					
	P	M	3-5	3+	X	X		Frequent	X	Birds, Butterflies	Yellow/Cream		X	X	X			
	P	L	1-2	2+		X		Frequent										
	P	VL	2	1-3			X	Frequent - Occasional	X	Bees, Butterflies	Yellow		X	X	X			
	P/GC	L	2.5	3+	X			Occasional	X									
	P	M	2-3	3+				Occasional				Red/Brown				X		
	P	VL	3	3		X		Occasional	X	Bees, Butterflies	Yellow	X	X	X				
	P	L	4	4				Occasional	X	Bees, Butterflies	Blue/Purple		X					
	P	M	2	2				Occasional	X		Yellow		X	X				
	G/P/GC	(Not Listed)	2-4	2				Frequent		Butterflies								
	G/P/GC	(Not Listed)	1.5-3	1+				Frequent	X	Butterflies	Yellow; SP		X					
	G/P/GC	L	4-5	3+	X			Occasional	X	Butterflies								
	G/P/GC	L	1.5-3	1+				Frequent - Occasional	X	Butterflies								
	G/P/GC	L	3	4	X			Occasional	X	Birds								
	V-D	VL	climbs		X			Occasional	X			Cream		X	X			
	V-D	L	climbs		X			Occasional	X			Cream			X			
	V/P	(Not Listed)	climbs			X		Occasional	X			Pink/White	X	X				
	V/S-D	L	climbs		X			Occasional	X	Birds	Green		X					
	P/GC	M	.5-1	2+	X			Occasional	X									

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
GROUNDCOVERS (continued)							
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	California aster	1-9	A, B		FS	2	
<i>Elymus triticoides</i>	Creeping wild rye	1-9	B, E, F, G	!	All	2	
<i>Salvia spathacea</i>	Hummingbird sage	1-9	B, C, E		PS / FS	2	
<i>Solidago californica</i>	California goldenrod	3-9	A, B, F, G	o	FS / PS	1	
<i>Solidago confinis</i>	Southern goldenrod	3-9	E, F, G	o	FS / PS	1	
<i>Stachys bullata</i>	Pink hedgenettle	1-9	E, F, G	+ ~ o	PS / FS	2	
<i>Symphoricarpos mollis</i>	Creeping snowberry	3-9	B, E	!	PS / FS	2	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
													W	SP	SU	F		
	P/GC	L	1-3	1-3	X			Occasional	X	Birds, Butterflies, Bees	Purple/Pink/White	X						
	G/P/GC	L	2	2+	X			Occasional	X	Butterflies								
	P/GC	L	1	3+	X			Occasional	X	Birds, Butterflies, Bees	Red/Pink	X	X	X				
	P/GC	M	1	2+	X			Frequent - Occasional	X	Bees, Butterflies	Yellow				X	X		
	P/GC	M	1	2+	X			Frequent - Occasional		Bees	Yellow			X	X	X		
	P/GC	L	1-2	2+	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Lavender/Purple			X	X	X		
	S-D/GC	L	2	2+	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Pink			X	X			

COAST LIVE OAK WOODLAND

Coast live oak woodland (CLOW) (Coast Live Oak Association):

CLOW is commonly found on slopes that are often very steep or on raised stream banks and terraces. Its soils are mostly sandstone or shale-derived. Coast live oak (*Quercus agrifolia*) woodland is a tree-dominated community comprising fewer trees and considerably drier soils than southern coast live oak forest.

- Requires fast draining, nutrient poor soil that is typical of slopes.
- Many species are deciduous in the summer, and over-watering during this time severely compromises the plants' survival.
- Can generally tolerate relatively dry conditions.

Figure 212. *Quercus agrifolia*. Source: Stickpen, <https://commons.wikimedia.org/w/index.php?curid=9944130>.

Figure 213. *Sambucus nigra* ssp. *caerulea*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=1953423>

Figure 214. *Umbellularia californica*. Source: Krzysztof Ziarnik, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54448438>.

Figure 215. *Prunus ilicifolia* ssp. *ilicifolia*. Source: John Rusk, <https://commons.wikimedia.org/w/index.php?curid=59290247>.

Figure 216. *Ribes californicum*. Source: Tom Hilton, https://commons.wikimedia.org/wiki/File:Ribes_californicum.jpg.

Figure 217. *Rhus aromatica*. Source: David J. Stang, <https://commons.wikimedia.org/w/index.php?curid=61092418>.

Figure 218. *Sisyrinchium bellum*. Source: Franco Folini, <https://www.flickr.com/photos/livenature/4350730696>.

Figure 219. *Bromus carinatus* var. *carinatus*. Source: Matt Lavin, <https://commons.wikimedia.org/w/index.php?curid=25134214>.

Figure 220. *Muhlenbergia rigens*. Source: Krzysztof Ziarnik, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54450777>.



Quercus agrifolia



Sambucus nigra ssp. caerulea



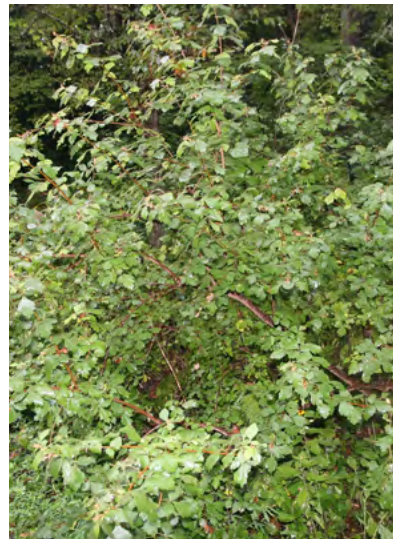
Umbellularia californica



Prunus ilicifolia ssp. ilicifolia



Ribes californicum



Rhus aromatica



Sisyrinchium bellum



Bromus carinatus var. carinatus



Muhlenbergia rigens

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
TREES							
<i>Juglans californica</i> var. <i>californica</i>	California walnut	3-9	B, E, F	+ ^ !	FS / PS	6	
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	1-9	A, B, C	+ ^	FS	8	
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6	
<i>Umbellularia californica</i>	California bay laurel	1-9	B, E, F	+ ^ !	FS / PS	6	
SHRUBS							
<i>Amorpha fruticosa</i>	indigobush	1-9	B, F, G	+ ~ o	FS / PS	3	
<i>Artemisia californica</i>	California sagebrush	1-6, 9	A, C, D	* !	FS	3	
<i>Baccharis pilularis</i> var. <i>consanguinea</i>	Coyote brush	1-5	A, C, D	* !	FS / PS	4	
<i>Berberis pinnata</i>	California barberry	5-9	B, E, F	+ !	FS / PS	4	
<i>Ceanothus leucodermis</i>	Chaparral whitethorn	5-9	B	+ !	FS / PS	6	
<i>Ceanothus oliganthus</i>	Hairy ceanothus	1-9	A, B, C	+ !	FS	6	
<i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i>	California buckwheat	1-6, 9	A		FS / PS	4	
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	Leafy California buckwheat	1-9	A, C	+ !	FS / PS	3	
<i>Frangula californica</i> ssp. <i>californica</i>	California coffeeberry	1-9	A, B, C, D	* !	All	6	
<i>Heteromeles arbutifolia</i>	Toyon	1-9	A, B, C, E, F	+ ^ !	FS / PS	6	
<i>Isocoma menziesii</i> ssp. <i>vernonioides</i>	Goldenbush	1-9	A, C		FS / PS	2	
<i>Keckiella cordifolia</i>	Heart-leaved penstemon	1-9	A, B, C, E		All	3	
<i>Lepechinia fragrans</i>	Fragrant pitcher sage	3-9	A, B, C	+ * !	FS / PS	3	
<i>Malosma laurina</i>	Laurel sumac	1-9	A, C	+ !	FS	6	
<i>Mimulus aurantiacus</i>	Bush monkey flower	1-9	A, B, C		FS / PS	2	
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Hollyleaf cherry	5-9	A, B, C	+ !	FS / PS	4	
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	5-9	A, B, C	+ !	All	5	
<i>Rhus aromatica</i>	Fragrant sumac	1-9	A, B, C, E, F	+	FS / PS	4	
<i>Rhus integrifolia</i>	Lemonadeberry	1-9	A, B, C	+ !	FS / PS	6	
<i>Rhus ovata</i>	Sugar bush	1-9	A, C	+ * !	FS / PS	6	
<i>Ribes aureum</i> var. <i>gracillimum</i>	Golden currant	3-9	A, B, C, E, F		FS / PS	3	
<i>Ribes californicum</i> var. <i>hesperium</i>	Hillside gooseberry	3-9	B, F, G	+	PS	4	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON								
														W	SP	SU	F								
	T-D	L	15-25	20	X	X		Occasional	X	Birds	Yellow		X												
	T	VL / L	40	40	X	X		Dominant	X	Birds, Butterflies	Yellow		X												
	T-D	L	15	20	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream		X	X											
	T	L	30	30				Frequent - Occasional	X	Birds	Yellow/Cream		X												
	S-D	M	3-8	3-8				Occasional	X	Birds, Butterflies	Purple/Yellow	X	X												
	S	VL	3	2-3	X	X	X	Occasional	X	Birds, Butterflies	White + Yellow		X	X	X	X									
	S	L	4-6	6-8	X	X		Occasional	X	Bees, Butterflies	Yellow/Cream	X	X	X	X	X									
	S	L	4-6	4+				Occasional	X	Birds, Butterflies, Bees	Yellow	X	X												
	S	VL	10-12	10-20				Occasional	X	Birds, Butterflies, Bees	Blue/Lavender	X	X												
	S	(Not Listed)	8-10	8-10				Occasional	X	Birds, Butterflies, Bees	Blue/Purple	X	X												
	S/GC	VL	3	2-6		X		Occasional		Bees, Butterflies	Red/Cream				X										
	S	VL	3-5	2-6	X	X	X	Occasional	X	Birds, Butterflies, Bees	Red/Cream				X										
	S	VL	8	12	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Cream		X	X											
	S/T	VL	8-15	15	X			Occasional	X	Birds, Bees	White				X										
	S	VL	1-3	3		X		Occasional	X	Bees, Butterflies	Yellow		X	X	X	X									
	P/V-D	VL	4	4				Occasional	X	Birds	Red		X	X											
	S	L	3-5	3-5				Occasional	X	Birds, Butterflies	Purple/Lavender		X	X	X	X									
	S	VL	10	20	X	X		Occasional	X	Birds	Cream	X	X												
	S	VL	2	2	X		X	Occasional	X	Birds, Butterflies, Bees	Orange/Yellow	X	X	X											
	S	VL	6-12	6-12	X			Frequent	X	Birds, Butterflies, Bees	Cream	X	X												
	S	VL	6	6	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X												
	S-D	L	3-5	4-8		X		Frequent - Occasional		Birds	Yellow/Cream		X												
	S	VL	8-10	15	X	X		Occasional	X	Birds	Pink	X	X												
	S	VL	8-10	15	X	X		Frequent - Occasional	X	Birds	Pink/White	X	X												
	S-D	VL	6-8	6-8	X	X	X	Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X												
	S-D	L	5	5-8	X	X		Occasional	X	Birds, Butterflies, Bees	Purple/Yellow	X	X												

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
SHRUBS (continued)							
Ribes malvaceum var. viridifolium	Chaparral currant	3-9	B, F	+	PS	3	
Ribes speciosum	Fuchsia-flowered gooseberry	3-9	B, F	+	PS / FS	4	
Rosa californica	California wild rose	1-9	E, F, G		All	3	
Salvia apiana	White sage	3-9	A, C, D	+ !	FS	3	
Salvia leucophylla	Purple sage	1-9	A, C, D	+ * !	FS	5	
Salvia mellifera	Black sage	1-9	A, C, D	+ !	FS	4	
Venegasia carpesioides	Canyon sunflower	1-9	B, E, F	+ !	All	3	
PERENNIALS							
Artemisia douglasiana	Mugwort	1-9	A, B, C, E	! ~ o	All	3	
Asclepias eriocarpa	Indian milkweed	1-9	C, E, F	+	FS	3	
Corethrogyne filaginifolia var. filaginifolia	California aster	1-9	A, B		FS	2	
Dryopteris arguta	Coastal wood fern	1-9	E, F, G	o	PS / FS	1	
Epilobium canum ssp. latifolium	California fuchsia	1-9	A, B	+	FS / PS	2	
Eriophyllum confertiflorum	Golden yarrow	1-9	A, B, C	+	FS / PS	1	
Eschscholzia californica	California poppy	1-9	C, D		FS / PS	1	
Linanthus californicus	Prickly phlox	1-9	A, B, E, F		FS / PS	2	
Lotus scoparius (Acmispon glaber)	Deerweed	1-6, 9	A, C	+ *	FS	2	
Lupinus latifolius var. parishii	Broad-leaf canyon lupine	6-9	B, E, F	+ o	FS / PS	2	
Penstemon centranthifolius	Scarlet bugler	1-9	A, B, C, E, F	+	FS	2	
Penstemon heterophyllus var. australis	Foothill penstemon	1-3; 6-9	A, B, C		FS / PS	1	
Penstemon spectabilis	Showy penstemon	1-9	C		FS	2	
Sisyrinchium bellum	Blue-eyed grass	1-9	E, F, G	o	FS / PS	1	
GRASSES							
Bromus carinatus var. carinatus	California brome	1-9	A, B, C, E, F, G	* !	FS / PS	1	
Elymus condensatus	Giant wild rye	1-9	A, B, C, E		All	2	
Elymus glaucus ssp. glaucus	Blue wild rye	1-9	A, B, C, E, F, G	+	All	3	
Koeleria macrantha	Junegrass	1-9	A, B, C, D	+ *	FS / PS	1	
Muhlenbergia rigens	Deergrass	1-9	A, B, C, E, F		FS / PS	3	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
													W	SP	SU	F				
	S-D	VL	5-8	5		X		Occasional	X	Birds, Butterflies, Bees	Pink/Purple	X	X							
	S-D	VL	5-8	6-8	X	X		Occasional	X	Birds, Butterflies, Bees	Red/Pink	X	X							
	S	L	4-6	4+	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Pink		X	X						
	S	VL	3	3-5	X	X		Occasional	X	Birds, Butterflies, Bees	White	X	X	X						
	S	VL	5	6-8	X	X		Occasional	X	Birds, Butterflies, Bees	Lavender/Purple		X	X						
	S	VL	4	6	X	X	X	Occasional	X	Birds, Butterflies, Bees	Lavender/White	X	X	X						
	S	L	4	4				Occasional	X	Birds, Bees	Yellow	X	X							
	P	M	3-5	3+	X	X		Frequent	X	Birds, Butterflies	Yellow/Cream		X	X	X					
	P-D	VL	3	1+		X		Occasional	X	Birds, Butterflies	Cream/Pink			X						
	P	L	1-3	1-3	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Purple/Pink/White	X								
	P	L	1-2	2+		X		Frequent												
	P	VL	1-3	2-4	X			Frequent	X	Birds, Butterflies	Red			X	X					
	P	VL	2	1-3			X	Frequent - Occasional	X	Bees, Butterflies	Yellow		X	X	X					
	A/P-D	VL	1	1-2		X		Occasional	X	Birds, Butterflies, Bees	Orange / Yellow		X							
	P	M	2	2				Occasional		Bees, Butterflies	Lavender	X	X	X						
	P	VL	3	3		X		Occasional	X	Bees, Butterflies	Yellow	X	X	X						
	P	L	4	4				Occasional	X	Bees, Butterflies	Blue/Purple		X							
	P	L	1	1-2				Occasional	X	Birds, Butterflies, Bees	Red		X	X						
	P	L	1	2				Occasional	X	Birds, Butterflies, Bees	Purple/Blue	X	X	X						
	P	L	3	3				Occasional	X	Birds	Purple/Blue/Pink	X								
	P-D	L	1	1				Frequent	X	Butterflies	Purple	X	X							
	G/P/GC	(Not Listed)	1.5-3	1+				Frequent	X	Butterflies	Yellow		X							
	G/P/GC	L	4-5	3+	X			Occasional	X	Butterflies										
	G/P/GC	L	1.5-3	1+				Frequent - Occasional	X	Butterflies										
	G/P/GC	L	1-2	1				Occasional	X	Butterflies										
	G/P/GC	L	3	4	X			Occasional	X	Birds										

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME	FRAMES FOR BEST PERFORMANCE					CONSTRUCTED CONTEXTS		APPLICATIONS		SUN EXPOSURE		SETBACK FROM PAVEMENT	
			PERFORMANCE												
GRASSES (continued)															
Poa secunda ssp. secunda (P. scabrella)	One-sided bluegrass	1-9	A, B, C, E		* !		FS / PS	1							
Stipa cernua	Nodding needlegrass	1-9	A, B, C, E				FS / PS	1							
Stipa lepida	Foothill needlegrass	1-9	A, B, C, D				FS / PS	1							
Stipa pulchra	Purple needlegrass	1-9	A, B, C, E		* !		FS / PS	1							
SUCCULENTS															
Yucca whipplei	Our lord's candle / chaparral yucca	5-9	A, C		+ *		FS	5							
VINES															
Clematis lasiantha	Pipestems	3-9	A, B				FS / PS	2							
Clematis ligusticifolia	Virgin's bower	3-9	B, E, F, G		o		FS / PS	2							
Lathyrus vestitus	Pacific sweet pea	6-9	B				FS / PS	2							
Lathyrus vestitus var. alefeldii	Showy Pacific sweet pea	6-9	B				FS / PS	2							
GROUNDCOVERS															
Achillea millefolium var. californicum	Yarrow	1-9	A, B, C, D, E, F		!		FS / PS	1							
Carex praegracilis	Slender sedge	1-9	D, E, F, G		o		FS / PS	1							
Salvia spathacea	Hummingbird sage	1-9	B, C, E				PS / FS	2							
Solidago californica	California goldenrod	3-9	A, B, F, G		o		FS / PS	1							
Solidago confinis	Southern goldenrod	3-9	E, F, G		o		FS / PS	1							
Stachys bullata	Pink hedgenettle	1-9	E, F, G		+ ~ o		PS / FS	2							
Symphoricarpos mollis	Creeping snowberry	3-9	B, E		!		PS / FS	2							

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON			
													W	SP	SU	F
	G/P/GC	L	1	1			Frequent - Occasional	X	Butterflies	Yellow			X			
	G/P/GC	VL	2	2			Frequent - Occasional	X								
	G/P/GC	VL	2	2		X	Frequent - Occasional	X								
	G/P/GC	VL	2	2		X	Frequent - Occasional	X	Butterflies	Cream			X			
	SC	(Not Listed)	3	5	X	X	Occasional	X	Birds	Cream			X			
	V-D	VL	climbs		X		Occasional	X		Cream			X	X		
	V-D	L	climbs		X		Occasional	X		Cream				X		
	V/P	(Not Listed)	climbs			X	Occasional	X		Pink/White	X	X				
	V/P	(Not Listed)	climbs				Occasional			Pink/Purple	X	X				
	P/GC	L	.5-2	3	X	X	Occasional	X	Birds, Butterflies, Bees	White			X	X		
	P/GC	M	.5-1	2+	X		Occasional	X								
	P/GC	L	1	3+	X		Occasional	X	Birds, Butterflies, Bees	Red/Pink	X	X	X			
	P/GC	M	1	2+	X		Frequent - Occasional	X	Bees, Butterflies	Yellow				X	X	
	P/GC	M	1	2+	X		Frequent - Occasional		Bees	Yellow			X	X	X	
	P/GC	L	1-2	2+	X	X	Frequent - Occasional	X	Birds, Butterflies, Bees	Lavender/Purple			X	X	X	
	S-D/GC	L	2	2+	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Pink			X	X		

SOUTHERN COTTONWOOD-WILLOW RIPARIAN FOREST

Southern cottonwood-willow riparian forest (CWRF) (Cottonwood-Willow Association):

This water-loving community is found where soils are intermittently or seasonally saturated: riparian corridors, floodplains subject to high intensity flooding, low-gradient depositions along rivers, streams, seeps, stream and river banks, and terraces. Generally a depth to perennial ground water of not more than ten feet is required to support this cottonwood-willow community, which may achieve either forest or woodland structure at maturity.

- Requires regularly saturated soils - typically found in areas where depth to groundwater is less than 10'.
- Typically found in stream beds, moist areas, or river banks and terraces.
- Can tolerate seasonal high-intensity flooding.

Figure 221. *Populus fremontii*. Source: CK Kelly, <https://www.inaturalist.org/photos/10765354>.

Figure 222. *Salix laevigata*. Source: no attribution necessary.

Figure 223. *Salix exigua*. Source: Thayne Tuason, <https://commons.wikimedia.org/w/index.php?curid=67414102>.

Figure 224. *Salix lasiandra*. Source: Matt Lavin, <https://commons.wikimedia.org/w/index.php?curid=22760167>.

Figure 225. *Salix lasiolepis*. Source: Par Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=7556942>.

Figure 226. *Mimulus cardinalis*. Source: Dcrrsr, <https://commons.wikimedia.org/w/index.php?curid=42183047>.

Figure 227. *Juncus patens*. Source: Daderot, <https://commons.wikimedia.org/w/index.php?curid=37530402>.

Figure 228. *Agrostis exarata*. Source: sarahnwilson, <https://www.inaturalist.org/photos/19749167>.

Figure 229. *Carex praegracilis*. Source: Katie Hetrick, https://commons.wikimedia.org/wiki/File:Carex_praegracilis_-_Spring_in_the_Mary_Wattis_Brown_Garden_of_California_Native_Plants.jpg.



Populus fremontii



Salix laevigata



Salix exigua



Salix lasiandra



Salix lasiolepis



Mimulus cardinalis



Juncus patens



Agrostis exarata



Carex praegracilis

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE				
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)
TREES								
Acer negundo	Box elder	5-9	E, F, G	+ ^ ~ o	FS / PS	6		
Fraxinus velutina var. coriacea	Velvet ash	1-9	B, E, F, G	+ ^ ! o	FS / PS	6		
Platanus racemosa	California sycamore	1-9	E, F	+ ^ ~ o	FS	6		
Populus fremontii ssp. fremontii	Fremont cottonwood	1-9	F, G	+ ^ ~ o	FS	8		
Populus trichocarpa	Black cottonwood	1-9	F, G	+ ^ ~ o	FS	8		
Salix gooddingii	Black willow	1-9	F, G	+ ^ ~ o	FS	6		
Salix laevigata	Red willow	1-9	F, G	+ ^ ~ o	FS / PS	6		
Sambucus nigra ssp. caerulea	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6		
Umbellularia californica	California bay laurel	1-9	B, E, F	+ ^ !	FS / PS	6		
SHRUBS								
Baccharis salicifolia	Mulefat	1-9	F, G	+ ~ o	All	3		
Pluchea sericea	Arrow weed	1-9	F, G	o	FS	3		
Rhus aromatica	Fragrant sumac	1-9	A, B, C, E, F	+	FS / PS	4		
Rosa californica	California wild rose	1-9	E, F, G		All	3		
Salix exigua	Sandbar willow	2-9	F, G	+ ~ o	FS	6		
Salix lasiandra	Shining willow	1-9	F, G	+ ^ ~ o	FS / PS	5		
Salix lasiolepis	Arroyo willow	1-9	G	+ ^ ~ o	FS / PS	5		
PERENNIALS								
Artemisia douglasiana	Mugwort	1-9	A, B, C, E	! ~ o	All	3		
Eriophyllum confertiflorum	Golden yarrow	1-9	A, B, C	+	FS / PS	1		
Juncus patens	California grey rush	1-9	E, F, G	~ o	FS / PS	2		
Juncus torreyi	Rush	1-9	E, F, G	~ o	FS / PS	1-2		
Mimulus cardinalis	Scarlet monkeyflower	1-9	E, F, G	+ ~ o	All	2		
Thalictrum fendleri var. polycarpum	Meadow rue	6-9	B, F, G	o	PS / FS	2		
GRASSES								
Agrostis exarata	Bent grass	1-9	A, B, C, E, F, G		FS / PS	1-2		
Carex barbarae	Valley sedge	1-9	F, G	~ o	FS / PS	1-2		

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
												W	SP	SU	F				
	T-D	M	30-60	40				Occasional	X	Birds, Butterflies	Yellow/Cream	X	X						
	T-D	M	20-30	20-30		X		Occasional	X	Birds, Butterflies	Yellow		X						
	T-D	M	40	40	X	X		Subdominant	X	Birds, Butterflies	Yellow/Cream	X	X						
	T-D	M	30	35				Dominant	X	Birds, Butterflies	Cream	X	X						
	T-D	M	30	30+				Frequent	X	Birds, Butterflies	Yellow	X	X						
	T-D	H	25	25				Frequent	X	Birds, Butterflies, Bees	Green	X	X						
	T-D	H	15-20	15-20				Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow	X	X						
	T-D	L	15	20	X	X		Subdominant	X	Birds, Butterflies, Bees	Yellow/Cream		X	X					
	T	L	30	30				Frequent - Occasional	X	Birds	Yellow/Cream		X						
	S	H	4-8	6-10	X	X		Occasional	X	Bees, Butterflies	White/Pink/White	X	X	X	X				
	S	M	6-8	6+	X			Occasional	X		Pink		X	X					
	S-D	L	3-5	4-8		X		Frequent - Occasional		Birds	Yellow/Cream		X						
	S	L	4-6	4+	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Pink		X	X					
	S-D	H	10-25	10-12	X	X		Subdominant	X	Birds, Butterflies, Bees	Yellow	X	X						
	S/T-D	H	15	15				Dominant	X	Birds, Butterflies, Bees	Yellow		X						
	S/T-D	H	15	15	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Cream	X	X						
	P	M	3-5	3+	X	X		Frequent	X	Birds, Butterflies	Yellow/Cream		X	X	X				
	P	VL	2	1-3			X	Frequent - Occasional	X	Bees, Butterflies	Yellow		X	X	X				
	P/GC	L	2.5	3+	X			Frequent - Occasional	X										
	P	M	2-3	3+				Frequent - Occasional			Red/Brown				X				
	P	H	2	2			X	Occasional	X	Birds, Butterflies	Red		X	X	X				
	P	M	2	2				Occasional	X		Yellow		X	X					
	G/P/GC	(Not Listed)	2-4	2				Frequent		Butterflies									
	G/P/GC	(Not Listed)	1-3	3				Frequent	X	Butterflies	Cream/Purple/Red				X				

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME	SITING + PERFORMANCE					
			FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
GRASSES (continued)								
Carex spissa	San Diego sedge	1-9	F, G	~ o	FS	1		
Elymus condensatus	Giant wild rye	1-9	A, B, C, E		All	2		
VINES								
Clematis ligusticifolia	Virgin's bower	3-9	B, E, F, G	o	FS / PS	2		
Vitis girdiana	Desert grape	3-9	G	o	All	2		
GROUNDCOVERS								
Carex praegracilis	Slender sedge	1-9	D, E, F, G	o	FS / PS	1		
Elymus triticoides	Creeping wild rye	1-9	B, E, F, G	!	All	2		
Euthamia occidentalis	Western goldenrod	3-9	E, F, G	o	FS / PS	1		
Solidago californica	California goldenrod	3-9	A, B, F, G	o	FS / PS	1		
Solidago confinis	Southern goldenrod	3-9	E, F, G	o	FS / PS	1		

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON						
	G/P/GC	M	2-4	2-4					Occasional	X	Butterflies	Brown/Green/Yellow			X							
	G/P/GC	L	4-5	3+	X				Occasional	X	Butterflies											
	V-D	L	climbs		X				Occasional	X		Cream				X						
	V/S-D	L	climbs		X				Occasional	X	Birds	Green			X							
	P/GC	M	.5-1	2+	X				Occasional	X						X	X					
	G/P/GC	L	2	2+	X				Occasional	X	Butterflies											
	P/GC	L	2-4	2+	X				Frequent - Occasional	X		Yellow / Green				X	X					
	P/GC	M	1	2+	X				Frequent - Occasional	X	Bees, Butterflies	Yellow				X	X					
	P/GC	M	1	2+	X				Frequent - Occasional		Bees	Yellow			X	X	X					

SOUTHERN SYCAMORE RIPARIAN WOODLAND

Southern sycamore riparian woodland (SRW) (California Sycamore Association):

This community is found along riparian corridors where soils are permanently saturated at depth. SRW is normally appropriate to braided, depositional channels of intermittent streams, gullies, springs, seeps, streams and riverbanks, and terraces adjacent to floodplains subject to high-intensity flooding. Soils supporting this community are alluvial, open, and rocky. This water-loving community should dominate river landscapes where water is available naturally.

- Will require additional water where it is not available naturally.
- Typically found in stream beds, moist areas, or north-facing slopes.
- Can tolerate seasonal high-intensity flooding.

Figure 230. *Platanus racemosa*. Source: Raffi Kojian, <http://www.gardenology.org>, <https://commons.wikimedia.org/w/index.php?curid=9705655>.

Figure 231. *Fraxinus velutina* var. *coriacea*. Source: Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=75992775>.

Figure 232. *Populus fremontii*. Source: CK Kelly, <https://www.inaturalist.org/photos/10765354>.

Figure 233. *Amorpha fruticosa*. Source: Leonora (Ellie) Enking, <https://www.flickr.com/photos/33037982@N04/14428257254>.

Figure 234. *Baccharis salicifolia*. Source: Krzysztof Ziarnik, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54913701>.

Figure 235. *Rhamnus ilicifolia*. Source: Charlie Hohn, <https://www.inaturalist.org/photos/7262866>.

Figure 236. *Rubus ursinus*. Source: Gaia Leo, <https://commons.wikimedia.org/w/index.php?curid=68610213>.

Figure 237. *Thalictrum fendleri* var. *polycarpum*. Source: Flowersinmyyard, <https://commons.wikimedia.org/w/index.php?curid=68320295>.

Figure 238. *Elymus condensatus*. Source: Peggy A. Lopipero-Langmo, <https://www.flickr.com/photos/98699202@N03/10355498513>.



Platanus racemosa



Fraxinus velutina var. *coriacea*



Populus fremontii



Amorpha fruticosa



Baccharis salicifolia



Rhamnus ilicifolia



Rubus ursinus



Thalictrum fendleri var. *polycarpum*



Elymus condensatus

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE					
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS		APPLICATIONS	SUN EXPOSURE	
					SETBACK FROM PAVEMENT (FEET)				
TREES									
Acer negundo	Box elder	5-9	E, F, G	+ ^ ~ o	FS / PS	6			
Alnus rhombifolia	White alder	1-9	G	+ ^ ~ o	All	6			
Fraxinus velutina var. coriacea	Velvet ash	1-9	B, E, F, G	+ ^ ! o	FS / PS	6			
Juglans californica var. californica	California walnut	3-9	B, E, F	+ ^ !	FS / PS	6			
Platanus racemosa	California sycamore	1-9	E,F	+ ^ ~ o	FS	6			
Populus fremontii ssp. fremontii	Fremont cottonwood	1-9	F, G	+ ^ ~ o	FS	8			
Populus trichocarpa	Black cottonwood	1-9	F, G	+ ^ ~ o	FS	8			
Quercus agrifolia var. agrifolia	Coast live oak	1-9	A, B, C	+ ^	FS	8			
Salix gooddingii	Black willow	1-9	F, G	+ ^ ~ o	FS	6			
Sambucus nigra ssp. caerulea	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6			
Umbellularia californica	California bay laurel	1-9	B, E, F	+ ^ !	FS / PS	6			
SHRUBS									
Amorpha fruticosa	indigobush	1-9	B, F, G	+ ~ o	FS / PS	3			
Baccharis pilularis var. consanguinea	Coyote brush	1-5	A, C, D	* !	FS / PS	4			
Baccharis salicifolia	Mulefat	1-9	F, G	+ ~ o	All	3			
Berberis pinnata	California barberry	5-9	B, E, F	+ !	FS / PS	4			
Frangula californica ssp. californica	California coffeeberry	1-9	A, B, C, D	* !	All	6			
Heteromeles arbutifolia	Toyon	1-9	A, B, C, E, F	+ ^ !	FS / PS	6			
Keckiella cordifolia	Heart-leaved penstemon	1-9	A, B, C, E		All	3			
Malosma laurina	Laurel sumac	1-9	A, C	+ !	FS	6			
Mimulus aurantiacus	Bush monkey flower	1-9	A, B, C		FS / PS	2			
Pluchea sericea	Arrow weed	1-9	F, G	o	FS	3			
Prunus ilicifolia ssp. ilicifolia	Hollyleaf cherry	5-9	A, B, C	+ !	FS / PS	4			
Rhamnus ilicifolia	Hollyleaf redberry	5-9	A, B, C	+ !	All	5			
Rhus aromatica	Fragrant sumac	1-9	A, B, C, E, F	+	FS / PS	4			
Rhus integrifolia	Lemonadeberry	1-9	A, B, C	+ !	FS / PS	6			
Ribes aureum var. gracillimum	Golden currant	3-9	A, B, C, E, F		FS / PS	3			
Ribes californicum var. hesperium	Hillside gooseberry	3-9	B, F, G	+	PS	4			

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON					
			W	SP	SU	F												
	T-D	M	30-60	40				Occasional	X	Birds, Butterflies	Yellow/Cream	X	X					
	T-D	H	20-30	20-30	X			Occasional	X	Birds, Butterflies	Green / Cream			X	X			
	T-D	M	20-30	20-30		X		Frequent - Occasional	X	Birds, Butterflies	Yellow		X					
	T-D	L	15-25	20	X	X		Frequent	X	Birds	Yellow		X					
	T-D	M	40	40	X	X		Dominant	X	Birds, Butterflies	Yellow/Cream	X	X					
	T-D	M	30	35				Occasional	X	Birds, Butterflies	Cream	X	X					
	T-D	M	30	30+				Frequent - Occasional	X	Birds, Butterflies	Yellow	X	X					
	T	VL / L	40	40	X	X		Occasional	X	Birds, Butterflies	Yellow		X					
	T-D	H	25	25				Frequent	X	Birds, Butterflies, Bees	Green	X	X					
	T-D	L	15	20	X	X		Subdominant	X	Birds, Butterflies, Bees	Yellow/Cream		X	X				
	T	L	30	30				Frequent - Occasional	X	Birds	Yellow/Cream		X					
	S-D	M	3-8	3-8				Frequent - Occasional	X	Birds, Butterflies	Purple/Yellow	X	X					
	S	L	4-6	6-8	X	X		Frequent	X	Bees, Butterflies	Yellow/Cream	X	X	X	X			
	S	H	4-8	6-10	X	X		Frequent	X	Bees, Butterflies	White/Pink/White	X	X	X	X			
	S	L	4-6	4+				Occasional	X	Birds, Butterflies, Bees	Yellow	X	X					
	S	VL	8	12	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Cream		X	X				
	S/T	VL	8-15	15	X			Occasional	X	Birds, Bees	White			X				
	P/V-D	VL	4	4				Occasional	X	Birds	Red		X	X				
	S	VL	10	20	X	X		Frequent	X	Birds	Cream	X	X					
	S	VL	2	2	X		X	Frequent	X	Birds, Butterflies, Bees	Orange/Yellow	X	X	X				
	S	M	6-8	6+	X			Occasional	X		Pink		X	X				
	S	VL	6-12	6-12	X			Occasional	X	Birds, Butterflies, Bees	Cream	X	X					
	S	VL	6	6	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X					
	S-D	L	3-5	4-8		X		Frequent - Occasional		Birds	Yellow/Cream		X					
	S	VL	8-10	15	X	X		Occasional	X	Birds	Pink	X	X					
	S-D	VL	6-8	6-8	X	X	X	Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X					
	S-D	L	5	5-8	X	X		Occasional	X	Birds, Butterflies, Bees	Purple/Yellow	X	X					

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
SHRUBS (continued)							
Ribes speciosum	Fuchsia-flowered gooseberry	3-9	B, F	+	PS / FS	4	
Rosa californica	California wild rose	1-9	E, F, G		All	3	
Salix exigua	Sandbar willow	2-9	F, G	+ ~ o	FS	6	
Salix lasiolepis	Arroyo willow	1-9	G	+ ^ ~ o	FS / PS	5	
Venegasia carpesioides	Canyon sunflower	1-9	B, E, F	+ !	All	3	
PERENNIALS							
Artemisia douglasiana	Mugwort	1-9	A, B, C, E	! ~ o	All	3	
Eriophyllum confertiflorum	Golden yarrow	1-9	A, B, C	+	FS / PS	1	
Eschscholzia californica	California poppy	1-9	C, D		FS / PS	1	
Juncus patens	California grey rush	1-9	E, F, G	~ o	FS / PS	2	
Juncus textilis	Basket rush	1-9	E, F, G	+ ~ o	FS	2	
Juncus torreyi	Rush	1-9	E, F, G	~ o	FS / PS	1-2	
Lotus scoparius (Acmispon glaber)	Deerweed	1-6, 9	A, C	+ *	FS	2	
Lupinus latifolius var. parishii	Broad-leaf canyon lupine	6-9	B, E, F	+ o	FS / PS	2	
Thalictrum fendleri var. polycarpum	Meadow rue	6-9	B, F, G	o	PS / FS	2	
Typha domingensis	Southern cattail	1-9	E, F, G	~ o	FS	2	
GRASSES							
Agrostis exarata	Bent grass	1-9	A, B, C, E, F, G		FS / PS	1-2	
Bromus carinatus var. carinatus	California brome	1-9	A, B, C, E, F, G	* !	FS / PS	1	
Carex barbarae	Valley sedge	1-9	F, G	~ o	FS / PS	1-2	
Carex spissa	San Diego sedge	1-9	F, G	~ o	FS	1	
Elymus condensatus	Giant wild rye	1-9	A, B, C, E		All	2	
Muhlenbergia rigens	Deergrass	1-9	A, B, C, E, F		FS / PS	3	
Schoenoplectus acutus var. occidentalis	Tule	5-9	E, F, G	~ o	FS	2	
VINES							
Clematis ligusticifolia	Virgin's bower	3-9	B, E, F, G	o	FS / PS	2	
Vitis girdiana	Desert grape	3-9	G	o	All	2	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
													W	SP	SU	F				
	S-D	VL	5-8	6-8	X	X		Occasional	X	Birds, Butterflies, Bees	Red/Pink	X	X							
	S	L	4-6	4+	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Pink		X	X						
	S-D	H	10-25	10-12	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow	X	X							
	S/T-D	H	15	15	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Cream	X	X							
	S	L	4	4				Occasional	X	Birds, Bees	Yellow	X	X							
	P	M	3-5	3+	X	X		Frequent	X	Birds, Butterflies	Yellow/Cream		X	X	X					
	P	VL	2	1-3			X	Frequent - Occasional	X	Bees, Butterflies	Yellow		X	X	X					
	A/P-D	VL	1	1-2		X		Occasional	X	Birds, Butterflies, Bees	Orange / Yellow		X							
	P/GC	L	2.5	3+	X			Occasional	X	Butterflies										
	P	M	3-7	1				Occasional	X											
	P	M	2-3	3+				Occasional			Red/Brown				X					
	P	VL	3	3		X		Occasional	X	Bees, Butterflies	Yellow	X	X	X						
	P	L	4	4				Occasional	X	Bees, Butterflies	Blue/Purple		X							
	P	M	2	2				Occasional	X		Yellow		X	X						
	P	(Not Listed)	12	3+				Occasional	X	Butterflies										
	G/P/GC	(Not Listed)	2-4	2				Frequent		Butterflies										
	G/P/GC	(Not Listed)	1.5-3	1+				Frequent	X	Butterflies	Yellow		X							
	G/P/GC	(Not Listed)	1-3	3				Frequent	X	Butterflies	Cream/Purple/Red				X					
	G/P/GC	M	2-4	2-4				Occasional	X	Butterflies	Brown/Green/Yellow		X							
	G/P/GC	L	4-5	3+	X			Occasional	X	Butterflies										
	G/P/GC	L	3	4	X			Occasional	X	Birds										
	G/P/GC	(Not Listed)	3-10	3+				Frequent - Occasional		Butterflies										
	V-D	L	climbs		X			Occasional	X		Cream				X					
	V/S-D	L	climbs		X			Occasional	X	Birds	Green		X							

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME						
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
GROUNDCOVERS							
<i>Carex praegracilis</i>	Slender sedge	1-9	D, E, F, G	o	FS / PS	1	
<i>Euthamia occidentalis</i>	Western goldenrod	3-9	E, F, G	o	FS / PS	1	
<i>Elymus triticoides</i>	Creeping wild rye	1-9	B, E, F, G	!	All	2	
<i>Salvia spathacea</i>	Hummingbird sage	1-9	B, C, E		PS / FS	2	
<i>Solidago californica</i>	California goldenrod	3-9	A, B, F, G	o	FS / PS	1	
<i>Solidago confinis</i>	Southern goldenrod	3-9	E, F, G	o	FS / PS	1	
<i>Stachys bullata</i>	Pink hedgenettle	1-9	E, F, G	+ ~ o	PS / FS	2	
<i>Symphoricarpos mollis</i>	Creeping snowberry	3-9	B, E	!	PS / FS	2	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON			
														W	SP	SU	F
	P/GC	M	.5-1	2+	X			Occasional	X								
	P/GC	L	2-4	2+	X			Frequent - Occasional	X			Yellow / Green				X	X
	G/P/GC	L	2	2+	X			Occasional	X	Butterflies							
	P/GC	L	1	3+	X			Occasional	X	Birds, Butterflies, Bees		Red/Pink	X	X	X		
	P/GC	M	1	2+	X			Frequent - Occasional	X	Bees, Butterflies		Yellow				X	X
	P/GC	M	1	2+	X			Frequent - Occasional		Bees		Yellow			X	X	X
	P/GC	L	1-2	2+	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees		Lavender/Purple			X	X	X
	S-D/GC	L	2	2+	X			Frequent - Occasional	X	Birds, Butterflies, Bees		Pink			X	X	

VALLEY OAK WOODLAND

Valley oak woodland (VOW) (Valley Oak Association):

This community is typified by its majestic signature tree (*Quercus lobata*), limited shrub layer, and generally grassy understory. VOW occurs in deep, well-drained alluvial soils that may be intermittently or seasonally flooded. This community is found on floodplains, valley bottoms, gentle slopes, and summit valleys.

- Understory is adapted to partial or full shade.
- Requires well draining soils that may be seasonally flooded.
- Typically found in stream beds, floodplain, or gentle slopes.

Figure 239. *Quercus lobata*. Source: King of Hearts, <https://commons.wikimedia.org/w/index.php?curid=75700289>.

Figure 240. *Platanus racemosa*. Source: Raffi Kojan, <http://www.gardenology.org>, <https://commons.wikimedia.org/w/index.php?curid=9705655>.

Figure 241. *Frangula californica ssp. californica*. Source: Krzysztof Ziarnik, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54696941>.

Figure 242. *Eriophyllum confertiflorum*. Source: Björn S..., <https://www.flickr.com/photos/40948266@N04/43163438812>.

Figure 243. *Sisyrinchium bellum*. Source: Franco Folini, <https://www.flickr.com/photos/livenature/4350730696>.

Figure 244. *Eschscholzia californica*. Source: docentjoyce, <https://commons.wikimedia.org/w/index.php?curid=8495738>.

Figure 245. *Vitis girdiana*. Source: Stickpen, <https://commons.wikimedia.org/wiki/File:Vitisgirdiana1.JPG>.

Figure 246. *Stipa cernua*. Source: Kyle Nessen, <https://www.inaturalist.org/photos/38751036>.

Figure 247. *Stipa pulchra*. Source: Matt Lavin, https://www.flickr.com/photos/plant_diversity/35034340452.



Quercus lobata



Platanus racemosa



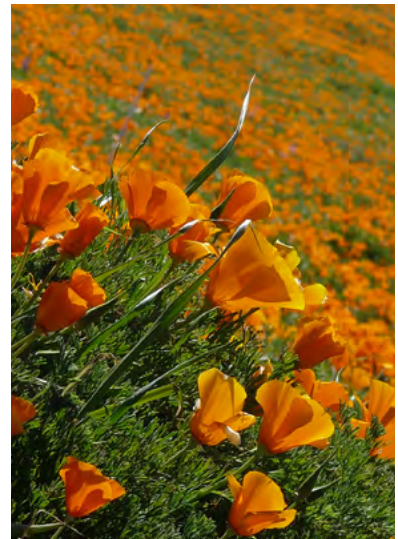
Frangula californica ssp. *californica*



Eriophyllum confertiflorum



Sisyrinchium bellum



Eschscholzia californica



Vitis girdiana



Stipa cernua



Stipa pulchra

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
TREES							
Fraxinus velutina var. coriacea	Velvet ash	1-9	B, E, F, G	+ ^ ! o	FS / PS	6	
Platanus racemosa	California sycamore	1-9	E, F	+ ^ ~ o	FS	6	
Quercus agrifolia var. agrifolia	Coast live oak	1-9	A, B, C	+ ^	FS	8	
Quercus lobata	Valley oak	3-6	A, C, E	+ ^ *	FS	8	
SHRUBS							
Frangula californica ssp. californica	California coffeeberry	1-9	A, B, C, D	* !	All	6	
PERENNIALS							
Corethrogyne filaginifolia var. filaginifolia	California aster	1-9	A, B		FS	2	
Eriophyllum confertiflorum	Golden yarrow	1-9	A, B, C	+	FS / PS	1	
Eschscholzia californica	California poppy	1-9	C, D		FS / PS	1	
Sisyrinchium bellum	Blue-eyed grass	1-9	E, F, G	o	FS / PS	1	
GRASSES							
Bromus carinatus var. carinatus	California brome	1-9	A, B, C, E, F, G	* !	FS / PS	1	
Elymus condensatus	Giant wild rye	1-9	A, B, C, E		All	2	
Muhlenbergia rigens	Deergrass	1-9	A, B, C, E, F		FS / PS	3	
Stipa cernua	Nodding needlegrass	1-9	A, B, C, E		FS / PS	1	
Stipa pulchra	Purple needlegrass	1-9	A, B, C, E	* !	FS / PS	1	
VINES							
Clematis ligusticifolia	Virgin's bower	3-9	B, E, F, G	o	FS / PS	2	
Lathyrus vestitus	Pacific sweet pea	6-9	B		FS / PS	2	
Vitis girdiana	Desert grape	3-9	G	o	All	2	
GROUNDCOVERS							
Achillea millefolium var. californicum	Yarrow	1-9	A, B, C, D, E, F	!	FS / PS	1	
Carex praegracilis	Slender sedge	1-9	D, E, F, G	o	FS / PS	1	
Elymus triticoides	Creeping wild rye	1-9	B, E, F, G	!	All	2	
Euthamia occidentalis	Western goldenrod	3-9	E, F, G	o	FS / PS	1	
Solidago californica	California goldenrod	3-9	A, B, F, G	o	FS / PS	1	
Solidago confinis	Southern goldenrod	3-9	E, F, G	o	FS / PS	1	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON			
														W	SP	SU	F
	T-D	M	20-30	20-30		X		Occasional	X	Birds, Butterflies	Yellow				X		
	T-D	M	40	40	X	X		Subdominant	X	Birds, Butterflies	Yellow/Cream	X		X			
	T	VL / L	40	40	X	X		Occasional	X	Birds, Butterflies	Yellow			X			
	T-D	M	35	35	X	X		Dominant	X	Birds, Butterflies	Green / Cream	X		X			
	S	VL	8	12	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Cream				X	X	
	P	L	1-3	1-3	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Purple/Pink/White	X					
	P	VL	2	1-3			X	Frequent - Occasional	X	Bees, Butterflies	Yellow			X	X	X	
	A/P-D	VL	1	1-2		X		Occasional	X	Birds, Butterflies, Bees	Orange / Yellow			X			
	P-D	L	1	1				Frequent	X	Butterflies	Purple	X		X			
	G/P/GC	(Not Listed)	1.5-3	1+				Frequent	X	Butterflies	Yellow				X		
	G/P/GC	L	4-5	3+	X			Occasional	X	Butterflies							
	G/P/GC	L	3	4	X			Frequent	X	Birds							
	G/P/GC	VL	2	2				Frequent	X								
	G/P/GC	VL	2	2		X		Frequent	X	Butterflies	Cream			X			
	V-D	L	climbs		X			Occasional	X		Cream					X	
	V/P	(Not Listed)	climbs			X		Occasional	X		Pink/White	X		X			
	V/S-D	L	climbs		X			Occasional	X	Birds	Green			X			
	P/GC	L	.5-2	3	X	X		Occasional	X	Birds, Butterflies, Bees	White			X	X		
	P/GC	M	.5-1	2+	X			Occasional	X								
	G/P/GC	L	2	2+	X			Occasional	X	Butterflies							
	P/GC	L	2-4	2+	X			Frequent - Occasional	X		Yellow / Green				X	X	
	P/GC	M	1	2+	X			Frequent - Occasional	X	Bees, Butterflies	Yellow				X	X	
	P/GC	M	1	2+	X			Frequent - Occasional		Bees	Yellow			X	X	X	

CALIFORNIA WALNUT WOODLAND

California walnut woodland (WW) (Walnut Woodland Association):

Walnut woodlands are found where soils are intermittently flooded and saturated, such as riparian corridors, floodplains, incised canyons, low-flow river and stream margins, seeps, stream and river banks, and terraces. WW also favor rarely flooded north-facing slopes, terraces, and flats. Its soils are generally fine-textured, shale-derived, and deep.

- Very rare in LA River watershed due to urbanization.
- Requires well draining soils that may be seasonally flooded.
- Typically found in stream beds, moist areas, or north-facing slopes.

Figure 248. *Juglans californica*. Source: Consultaplantas, <https://commons.wikimedia.org/w/index.php?curid=44978241>.

Figure 249. *Sambucus nigra* ssp. *caerulea*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=1953423>.

Figure 250. *Heteromeles arbutifolia*. Source: Miguel Vieira, <https://commons.wikimedia.org/w/index.php?curid=19525268>.

Figure 251. *Salvia leucophylla*. Source: John Rusk, https://www.flickr.com/photos/john_d_rusk/9309081263.

Figure 252. *Malacothamnus fasciculatus*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=1113761>.

Figure 253. *Asclepias fascicularis*. Source: Jim Morefield, <https://www.flickr.com/photos/127605180@N04/15966683860>.

Figure 254. *Achillea millefolium* var. *californicum*. Source: Dcrjsr, <https://commons.wikimedia.org/w/index.php?curid=16059528>.

Figure 255. *Calystegia macrostegia* ssp. *arida*. Source: OLIN, 2017.

Figure 256. *Solidago californica*. Source: Stickpen, <https://commons.wikimedia.org/w/index.php?curid=8092464>.



Juglans californica



Sambucus nigra ssp. caerulea



Heteromeles arbutifolia



Salvia leucophylla



Malacothamnus fasciculatus



Asclepias fascicularis



Achillea millefolium var. californicum



Calystegia macrostegia ssp. arida



Solidago californica

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE				
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)
TREES								
<i>Juglans californica</i> var. <i>californica</i>	California walnut	3-9	B, E, F	+ ^ !	FS / PS	6		
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	1-9	A, B, C	+ ^	FS	8		
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6		
SHRUBS								
<i>Heteromeles arbutifolia</i>	Toyon	1-9	A, B, C, E, F	+ ^ !	FS / PS	6		
<i>Lonicera subspicata</i> var. <i>denudata</i>	Chaparral honeysuckle	1-9	A, B		FS	2		
<i>Malacothamnus fasciculatus</i>	Chaparral bush mallow	1-9	A	+ !	FS	4		
<i>Mimulus aurantiacus</i>	Bush monkey flower	1-9	A, B, C		FS / PS	2		
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Hollyleaf cherry	5-9	A, B, C	+ !	FS / PS	4		
<i>Rhamnus ilicifolia</i>	Hollyleaf redberry	5-9	A, B, C	+ !	All	5		
<i>Rhus ovata</i>	Sugar bush	1-9	A, C	+ * !	FS / PS	6		
<i>Ribes aureum</i> var. <i>gracillimum</i>	Golden currant	3-9	A, B, C, E, F		FS / PS	3		
<i>Salvia leucophylla</i>	Purple sage	1-9	A, C, D	+ * !	FS	5		
<i>Salvia mellifera</i>	Black sage	1-9	A, C, D	+ !	FS	4		
PERENNIALS								
<i>Asclepias fascicularis</i>	Narrow-leaved milkweed	1-9	C, E, F, G	+	FS / PS	3		
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	California aster	1-9	A, B		FS	2		
<i>Dryopteris arguta</i>	Coastal wood fern	1-9	E, F, G	o	PS / FS	1		
<i>Eriophyllum confertiflorum</i>	Golden yarrow	1-9	A, B, C	+	FS / PS	1		
<i>Eschscholzia californica</i>	California poppy	1-9	C, D		FS / PS	1		
<i>Malacothrix saxatilis</i>	Cliff aster	1-9	A, B, C, D	+	FS	1		
<i>Sisyrinchium bellum</i>	Blue-eyed grass	1-9	E, F, G	o	FS / PS	1		
<i>Thalictrum fendleri</i> var. <i>polycarpum</i>	Meadow rue	6-9	B, F, G	o	PS / FS	2		
GRASSES								
<i>Bromus carinatus</i> var. <i>carinatus</i>	California brome	1-9	A, B, C, E, F, G	* !	FS / PS	1		
<i>Elymus condensatus</i>	Giant wild rye	1-9	A, B, C, E		All	2		
<i>Elymus glaucus</i> ssp. <i>glaucus</i>	Blue wild rye	1-9	A, B, C, E, F, G	+	All	3		

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
													W	SP	SU	F				
	T-D	L	15-25	20	X	X		Dominant	X	Birds	Yellow		X							
	T	VL / L	40	40	X	X		Subdominant	X	Birds, Butterflies	Yellow		X							
	T-D	L	15	20	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream		X	X						
	S/T	VL	8-15	15	X			Subdominant	X	Birds, Bees	White				X					
	V/S	L	climbs					Occasional	X	Birds	Yellow/Cream		X	X						
	S	VL	6	6+		X		Frequent - Occasional	X	Birds, Butterflies	White + Pink		X	X						
	S	VL	2	2	X		X	Frequent	X	Birds, Butterflies, Bees	Orange/Yellow	X	X	X						
	S	VL	6-12	6-12	X			Frequent	X	Birds, Butterflies, Bees	Cream	X	X							
	S	VL	6	6	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X							
	S	VL	8-10	15	X	X		Frequent - Occasional	X	Birds	Pink/White	X	X							
	S-D	VL	6-8	6-8	X	X	X	Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream	X	X							
	S	VL	5	6-8	X	X		Occasional	X	Birds, Butterflies, Bees	Lavender/Purple		X	X						
	S	VL	4	6	X	X	X	Occasional	X	Birds, Butterflies, Bees	Lavender/White	X	X	X						
	P-D	VL	3	2+		X		Occasional	X	Birds, Butterflies	White, Lavender				X	X				
	P	L	1-3	1-3	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Purple/Pink/White	X								
	P	L	1-2	2+		X		Occasional												
	P	VL	2	1-3			X	Frequent - Occasional	X	Bees, Butterflies	Yellow		X	X	X					
	A/P-D	VL	1	1-2		X		Occasional	X	Birds, Butterflies, Bees	Orange / Yellow		X							
	P	M	1-2	1-2				Occasional		Bees, Butterflies	White	X			X	X				
	P-D	L	1	1				Frequent	X	Butterflies	Purple	X	X							
	P	M	2	2				Occasional	X		Yellow		X	X						
	G/P/GC	(Not Listed)	1.5-3	1+				Occasional	X	Butterflies	Yellow		X							
	G/P/GC	L	4-5	3+	X			Occasional	X	Butterflies										
	G/P/GC	L	1.5-3	1+				Frequent - Occasional	X	Butterflies										

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE				
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)
GRASSES (continued)								
Stipa lepida	Foothill needlegrass	1-9	A, B, C, D		FS / PS	1		
Stipa pulchra	Purple needlegrass	1-9	A, B, C, E	* !	FS / PS	1		
SUCCULENTS								
Opuntia littoralis	Coastal prickly pear	1-9	A		FS	3		
VINES								
Calystegia macrostegia ssp. arida	Southern California morning glory	3-9	B		FS / PS	1		
Calystegia macrostegia ssp. intermedia	Island morning glory	1-5	A, B		FS / PS	1		
Clematis ligusticifolia	Virgin's bower	3-9	B, E, F, G	o	FS / PS	2		
GROUNDCOVERS								
Achillea millefolium var. californicum	Yarrow	1-9	A, B, C, D, E, F	!	FS / PS	1		
Carex praegracilis	Slender sedge	1-9	D, E, F, G	o	FS / PS	1		
Elymus triticoides	Creeping wild rye	1-9	B, E, F, G	!	All	2		
Euthamia occidentalis	Western goldenrod	3-9	E, F, G	o	FS / PS	1		
Solidago californica	California goldenrod	3-9	A, B, F, G	o	FS / PS	1		
Solidago confinis	Southern goldenrod	3-9	E, F, G	o	FS / PS	1		
Symphoricarpos mollis	Creeping snowberry	3-9	B, E	!	PS / FS	2		

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		USACE NATIVE PLANT SHORTLIST PLANT	SEED LA TARGET LIST USACE NATIVE PLANT LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON			
														W	SP	SU	F
	G/P/GC	VL	2	2		X		Occasional	X								
	G/P/GC	VL	2	2		X		Occasional	X	Butterflies	Cream			X			
	SC	VL	3	3+		X		Frequent - Occasional	X	Birds	Orange / Yellow			X			
	V/P	L	climbs			X		Frequent - Occasional		Bees	White	X	X	X			
	V/P	L	climbs			X	X	Frequent - Occasional	X	Bees	Pink/White	X	X	X			
	V-D	L	climbs			X		Occasional	X		Cream				X		
	P/GC	L	.5-2	3	X	X		Occasional	X	Birds, Butterflies, Bees	White			X	X		
	P/GC	M	.5-1	2+	X			Occasional	X								
	G/P/GC	L	2	2+	X			Occasional	X	Butterflies							
	P/GC	L	2-4	2+	X			Frequent - Occasional	X		Yellow / Green				X	X	
	P/GC	M	1	2+	X			Frequent - Occasional	X	Bees, Butterflies	Yellow				X	X	
	P/GC	M	1	2+	X			Frequent - Occasional		Bees	Yellow			X	X	X	
	S-D/GC	L	2	2+	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Pink			X	X		

PERENNIAL FRESHWATER EMERGENT WETLAND

Perennial freshwater emergent wetland (PFEW):

This community thrives in lowland areas distinguished by year-round saturated soils and shallow standing water. Historically, such areas appeared along the path of former channels within the floodplain, but 90% of this habitat type in California has since been destroyed. Herbaceous plants such as grasses, reeds, sedges, rushes, cattails, and bulrush predominate. Many of these are rhizomatous, reproducing asexually underground rather than by seed. The herbaceous vegetation tends to appear in dense clumps, with trees and shrubs accounting for less than 10% of plant cover. Soils are deep, built up from sediment deposition by slow-moving waters, and can be peaty.

- Requires saturated soils or shallow standing water.
- Typically found along the margins of lakes and reservoirs.
- Restoration efforts are needed.

Figure 257. *Salix exigua*. Source: Thayne Tuason, https://commons.wikimedia.org/wiki/File:Salix_exigua_var._exigua_4.jpg

Figure 258. *Baccharis salicifolia*. Source: Krzysztof Ziarnik, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54913701>.

Figure 259. *Cyperus eragrostis*. Source: Krzysztof Ziarnik, Kenraiz, https://commons.wikimedia.org/wiki/Category:Cyperus_eragrostis#/media/File:Cyperus_eragrostis_kz03.jpg.

Figure 260. *Typha latifolia*. Source: R. A. Nonenmacher, https://commons.wikimedia.org/wiki/File:Typha_latifolia_7642.jpg

Figure 261. *Bolboschoenus maritimus*. Source: Stefan Lefnaer, https://commons.wikimedia.org/wiki/File:Bolboschoenus_maritimus_s._str._sl5.jpg.

Figure 262. *Schoenoplectus californicus*. Source: Forest and Kim Starr, https://upload.wikimedia.org/wikipedia/commons/2/2a/Burr_Marigold_Bidens_Laevis_%28237189541%29.jpeg

Figure 263. *Bidens laevis*. Source: Suzanne Antonia, [https://commons.wikimedia.org/wiki/File:Burr_Marigold_Bidens_Laevis_\(237189541\).jpeg](https://commons.wikimedia.org/wiki/File:Burr_Marigold_Bidens_Laevis_(237189541).jpeg).

Figure 264. *Sparganium eurycarpum*. Source: Tom Koerner, [https://commons.wikimedia.org/wiki/File:Burr-reed_\(Sparganium_eurycarpum\)_Sand_Lake_Wetland_Management_District_01_\(14385334072\).jpg#filelinks](https://commons.wikimedia.org/wiki/File:Burr-reed_(Sparganium_eurycarpum)_Sand_Lake_Wetland_Management_District_01_(14385334072).jpg#filelinks).

Figure 265. *Artemisia douglasiana*. Source: Römert, <https://commons.wikimedia.org/w/index.php?curid=19802958>.



Salix exigua



Baccharis salicifolia



Cyperus eragrostis



Typha latifolia



Bolboschoenus maritimus



Schoenoplectus californicus



Bidens laevis



Sparganium eurycarpum



Artemisia douglasiana

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE				
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)
TREES								
<i>Alnus rhombifolia</i>	White alder	2-9	G	+ ^ ~ o	All	6		
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	1-9	F, G	+ ^ ~ o	FS	8		
<i>Populus trichocarpa</i>	Black cottonwood	1-9	F, G	+ ^ ~ o	FS	8		
<i>Salix gooddingii</i>	Black willow	1-9	F, G	+ ^ ~ o	FS	6		
<i>Salix laevigata</i>	Red willow	1-9	F, G	+ ^ ~ o	FS / PS	6		
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Mexican elderberry	1-9	C, E, F	+ ^ ~ o	FS	6		
SHRUBS								
<i>Baccharis salicifolia</i>	Mulefat	2-9	F, G	^ ~ o	All	3		
<i>Salix exigua</i>	Sandbar willow	2-9	F, G	^ ~ o	FS	6		
<i>Salix lasiandra</i>	Shining willow	1-9	F, G	+ ^ ~ o	FS / PS	5		
<i>Salix lasiolepis</i>	Arroyo willow	1-9	G	+ ^ ~ o	FS / PS	5		
PERENNIALS								
<i>Alisma triviale</i>	Water plantain	2-9	G	~ o	FS / PS	1		
<i>Artemisia douglasiana</i>	Mugwort	1-9	A, B, C, E, F	! ~ o	All	3		
<i>Bidens laevis</i>	Bur marigold	2-9	F, G	+ ~ o	FS	1		
<i>Equisetum hymale</i>	Scouring rush	1-9	F,G	~ o	PS	2		
<i>Sparganium eurycarpum</i>	Broadfruit bur-reed	2-9	G	~ o	FS / PS	3		
<i>Typha latifolia</i>	Broadleaf cattail	2-9	G	! ~ o	FS	1		
GRASSES								
<i>Bolboschoenus maritimus</i>	Alkali bulrush	2-9	G	~ o	FS	1		
<i>Carex fracta</i>	Fragile-sheathed sedge	5-9	F, G	~ o	FS / PS	2		
<i>Carex senta</i>	Swamp carex	5-9	F, G	~ o	PS	2		
<i>Carex spissa</i>	San Diego sedge	1-9	F, G	~ o	FS	2		
<i>Cyperus eragrostis</i>	Tall flatsedge	2-9	G	o	FS	1		
<i>Eleocharis macrostachya</i>	Common spikerush	1-9	F,G	~ o	FS	2		
<i>Elymus glaucus</i> ssp. <i>glaucus</i>	Blue wild rye	1-9	A, B, C, E, F, G	+	All	3		
<i>Juncus balticus</i>	Wire rush	2-9	G	~ o	PS	1		
<i>Juncus macrophyllus</i>	Long-leaved rush	5-9	F, G	~ o	PS	2		

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)		SHORTLIST PLANT USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
												W	SP	SU	F				
	T	H	20-30	20-30				Occasional	X	Birds, Butterflies	Green / Cream			X	X				
	T-D	M	30	35				Occasional	X	Birds, Butterflies	Cream	X	X						
	T-D	M	30	30+				Frequent - Occasional	X	Birds, Butterflies	Yellow	X	X						
	T-D	H	25	25				Frequent	X	Birds, Butterflies, Bees	Green	X	X						
	T-D	H	15-20	15-20				Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow	X	X						
	T-D	L	15	20	X	X		Frequent - Occasional	X	Birds, Butterflies, Bees	Yellow/Cream		X	X					
	S	H	4-8	6-10	X	X		Occasional	X	Bees, Butterflies	White/Pink/White	X	X	X	X				
	S-D	H	10-25	10-12	X	X		Subdominant	X	Birds, Butterflies, Bees	Yellow	X	X						
	S/T-D	H	15	15				Dominant	X	Birds, Butterflies, Bees	Yellow		X						
	S/T-D	H	15	15	X			Frequent - Occasional	X	Birds, Butterflies, Bees	Cream	X	X						
	P	(Not Listed)	2-3	1.5-2				Occasional		Butterflies	White			X					
	P	M	3-5	3+	X	X		Frequent	X	Birds, Butterflies	Yellow / Cream		X	X	X				
	P	M	2-3	1-2				Occasional											
	P	H	3	3+				Frequent	X	Birds									
	P	(Not Listed)	4-6	2-3				Occasional		Butterflies	Green			X					
	P	(Not Listed)	4-6	4-6		X		Dominant											
	G/P/GC	(Not Listed)	3	2+				Dominant	X	Butterflies									
	G/P/GC	(Not Listed)	1.5-3	1.5-3				Occasional		Butterflies									
	G/P/GC	(Not Listed)	1.5-3	1.5-3				Occasional		Butterflies	Green		X						
	G/P/GC	M	2-4	2-4				Occasional	X	Butterflies	Brown/Green/Yellow		X						
	G/P/GC	H	2	30				Frequent	X		Green / Yellow		X	X	X				
	G/P/GC	H	1.5-3	2+				Frequent	X	Birds, Butterflies									
	G/P/GC	L	1.5-3	1+				Frequent - Occasional	X	Butterflies									
	G/P/GC	(Not Listed)	3	0.5-1		X		Frequent											
	G/P/GC	(Not Listed)	3	2+				Occasional											

SPECIES

SITING + PERFORMANCE

SPECIES		SITING + PERFORMANCE					
BOTANICAL NAME	COMMON NAME	FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
GRASSES (continued)							
<i>Juncus xiphioides</i>	Iris-leaf rush	2-9	G	~	PS	1	
<i>Schoenoplectus californicus</i>	California bulrush	2-9	G	! ~ o	FS	6	
GROUNDCOVERS							
<i>Anemopsis californica</i>	Yerba mansa	2-3, 5-9	F, G	* o	FS / PS	1	
<i>Carex praegracilis</i>	Slender sedge	1-9	D, E, F, G	o	FS / PS	1	
<i>Nasturtium officinale</i>	Watercress	2-9	G	~	FS	1	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)	MATURE WIDTH (FEET)	SHORTLIST PLANT	USACE NATIVE PLANT LIST	SEED LA TARGET LIST	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
												W	SP	SU	F			
	G/P/GC	(Not Listed)	1-3	1-2	X			Frequent	X	Butterflies								
	G/P/GC	(Not Listed)	6-12	3+				Dominant	X	Butterflies	Brown		X					
	P	M	0.5-1	1+				Frequent	X		White / Cream / Red	X	X					
	P/GC	M	.5-1	2+	X			Occasional	X									
	P	(Not Listed)	0.5-2	3+				Frequent			White / Green		X	X	X			

DRY MEADOW

Dry Meadow (DM):

The dry meadow is a community characterized by an open example of perennial bungrasses and annual and perennial wildflowers. Its extents have been greatly diminished in the LA River Watershed due to encroachment by agriculture, grazing, urbanization, and the invasion of exotic species. This community requires well-draining soils. This plant list includes examples of annual specials that would typically be found in dry meadows. Project-specific species lists and seed mixes can be developed with a qualified botanist or ecologist. Maintenance for yearly seed sowing and other measures specific to the dry meadow community must be planned before implementation. For example, weed management is crucial during the early development stages of this community.

- Requires well-drained soils.
- Seed sowing and additional maintenance specific to meadows is required.

Figure 266. *Elymus glaucus* ssp. *glaucus*. Source: Wild Bryde, <https://www.inaturalist.org/photos/38822555>.

Figure 267. *Lotus scoparius* (*Acmispon glaber*). Source: glmory, <https://commons.wikimedia.org/w/index.php?curid=32092287>.

Figure 268. *Isocoma menziesii* ssp. *vernonioides*. Source: Miguel Vieira, <https://commons.wikimedia.org/w/index.php?curid=9389145>.

Figure 269. *Bromus carinatus*. Source: Matt Lavin, https://www.flickr.com/photos/plant_diversity/3861052158.

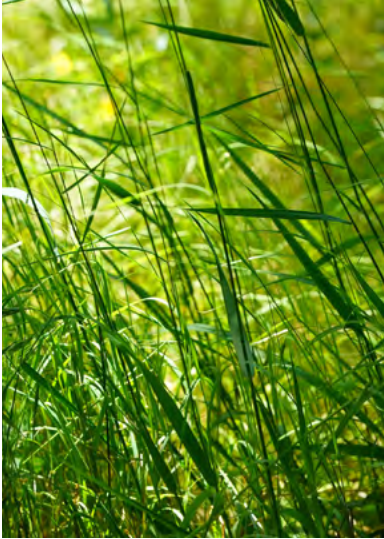
Figure 270. *Deinandra fasciculata*. Source: Björn S. [https://commons.wikimedia.org/wiki/File:Clustered_Tarweed_-_Deinandra_fasciculata_\(41948547430\).jpg](https://commons.wikimedia.org/wiki/File:Clustered_Tarweed_-_Deinandra_fasciculata_(41948547430).jpg).

Figure 271. *Stipa cernua*. Source: Kyle Nessen, <https://www.inaturalist.org/photos/38751036>.

Figure 272. *Stipa lepida*. Source: John Rusk, <https://commons.wikimedia.org/w/index.php?curid=59287600>.

Figure 273. *Muhlenbergia rigens*. Source: Krzysztof Ziarnek, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54450777>.

Figure 274. *Koeleria macrantha*. Source: Matt Lavin, [https://commons.wikimedia.org/wiki/File:Koeleria_macrantha_\(3879657197\).jpg](https://commons.wikimedia.org/wiki/File:Koeleria_macrantha_(3879657197).jpg).



Elymus glaucus ssp. *glaucus*



Lotus scoparius (*Acemisson glaber*)



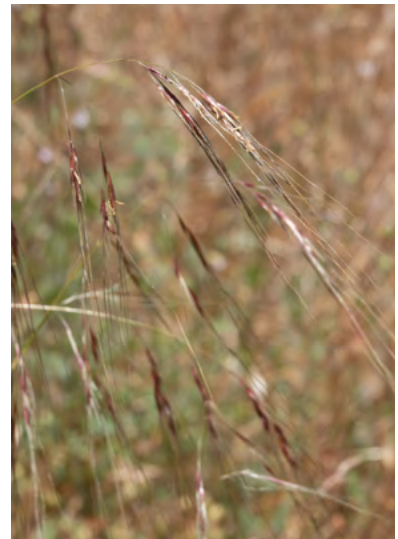
Isocoma menziesii ssp. *vernonioides*



Bromus carinatus



Deinandra fasciculata



Stipa cernua



Stipa lepida



Muhlenbergia rigens



Koeleria macrantha

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME						
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
SHRUBS							
<i>Atriplex lentiformis</i> ssp. <i>lentiformis</i>	Saltbush	1-5	C, D, E	*!	FS	5	
<i>Baccharis pilularis</i> var. <i>consanguinea</i>	Coyote brush	1-5	A, C, D	*!	FS / PS	4	
<i>Isocoma menziesii</i> ssp. <i>vernonioides</i>	Goldenbush	1-9	A, C		FS / PS	2	
PERENNIALS							
<i>Ambrosia psilostachya</i>	Western ragweed	1-9	A, B, C	+!	FS	1	
<i>Bloomeria crocea</i>	Common goldenstar	1-9	A, B, C	+	FS / PS	0.5	
<i>Epilobium canum</i> ssp. <i>canum</i>	Hoary California fuchsia	1-9	A, B	+	FS / PS	2	
<i>Eschscholzia californica</i>	California poppy	1-9	C, D		FS / PS	1	
<i>Grindelia camporum</i>	Great valley gumweed	1-9	A, B, C	+!	FS	2	
<i>Lotus scoparius</i> (<i>Acmispon glaber</i>)	Deerweed	1-6, 9	A, C	+*	FS	2	
<i>Lupinus bicolor</i>	Miniature lupine	1-9	A, B, C	+!	FS	1	
<i>Penstemon heterophyllus</i> var. <i>australis</i>	Foothill penstemon	1-3; 6-9	A, B, C		FS / PS	1	
<i>Pseudognaphalium canescens</i>	Wright's cudweed	1-9	A, B, C	+	FS	0.5	
<i>Sidalcea malviflora</i>	Checker bloom	5-9	A, B, C, D		FS / PS	1	
<i>Sisyrinchium bellum</i>	Blue-eyed grass	1-9	E, F, G	o	FS / PS	1	
GRASSES							
<i>Agrostis pallens</i>	Seashore bent grass	1-9	A, B, C, E, F, G	!	FS / PS	1	
<i>Bromus carinatus</i> var. <i>carinatus</i>	California brome	1-9	A, B, C, E, F, G	*!	FS / PS	1	
<i>Elymus glaucus</i> ssp. <i>glaucus</i>	Blue wild rye	1-9	A, B, C, E, F, G	+	All	3	
<i>Elymus trachycaulus</i>	Slender wheatgrass	1-9	A, B, C, D		FS / PS	4	
<i>Festuca californica</i>	California fescue	1-9	A, B, C, D, E	!	FS / PS	3	
<i>Hordeum brachyantherum</i> ssp. <i>californicum</i>	California meadow barley	1-9	A, B, C, E, F, G		FS / PS	2	
<i>Koeleria macrantha</i>	Junegrass	1-9	A, B, C, D	+*	FS / PS	1	
<i>Melica californica</i>	California melicgrass	5-9	A, B, C, D		FS / PS	1	
<i>Muhlenbergia rigens</i>	Deergrass	1-9	A, B, C, E, F		FS / PS	3	
<i>Sporobolus airoides</i>	Alkali sacaton	1-5	A, C, D	*	FS	2	
<i>Stipa cernua</i>	Nodding needlegrass	1-9	A, B, C, E		FS / PS	1	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)	MATURE WIDTH (FEET)	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR	BLOOM SEASON			
									W	SP	SU	F
	S	VL	6-8	5-10	Occasional	X	Birds, Butterflies	Yellow/Brown			X	
	S	L	4-6	6-8	Occasional	X	Bees, Butterflies	Yellow/Cream	X	X	X	X
	S	VL	1-3	3	Occasional	X	Bees, Butterflies	Yellow		X	X	X
	P	(Not Listed)	3-7	1	Occasional	X	Butterflies, Bees	Green			X	X
	P	VL	1	0.5	Occasional	X		Yellow		X		
	P	VL	1-3	2-4	Occasional		Birds, Butterflies	Red			X	X
	A/P-D	VL	1	1-2	Occasional	X	Birds, Butterflies, Bees	Orange / Yellow		X		
	P	VL	2-6	3	Frequent - Occasional	X	Butterflies	Yellow		X	X	X
	P	VL	3	3	Frequent - Occasional	X	Bees, Butterflies	Yellow	X	X	X	
	P	(Not Listed)	0.25-1	1	Frequent - Occasional	X	Birds, Butterflies, Bees	Blue/Lavender/White		X		
	P	L	1	1	Occasional	X	Birds, Butterflies, Bees	Purple/Blue		X	X	
	P	(Not Listed)	3	0.5	Occasional		Butterflies, Bees	Cream/Yellow/Brown			X	X
	P	L	0.3-1.5	0.5	Occasional	X	Birds, Butterflies	Pink		X	X	
	P-D	L	1	1	Frequent - Occasional	X	Butterflies	Purple		X		
	G/P/GC	(Not Listed)	0.33-2.3	2	Frequent	X	Butterflies	Green		X		
	G/P/GC	(Not Listed)	1.5-3	1+	Frequent	X	Butterflies	Yellow		X		
	G/P/GC	L	1.5-3	1+	Occasional	X	Butterflies					
	G/P/GC	(Not Listed)	3-5	3+	Occasional	X	Butterflies	Yellow		X		
	G/P/GC	L	1.3-4	3	Frequent	X	Butterflies	Yellow	X	X		
	G/P/GC	L	1.5-4	1+	Frequent	X	Butterflies	Yellow		X		
	G/P/GC	L	1-2	1	Frequent	X	Butterflies					
	G/P/GC	L	1-4.3	1	Frequent	X	Butterflies	Yellow/Purple			X	
	G/P/GC	L	1-2	4	Occasional	X	Birds					
	G/P	L	3-4	2	Occasional	X	Butterflies					
	G/P/GC	VL	2	2	Occasional	X						

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME						
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS		APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)
GRASSES (continued)							
Stipa coronatum	Giant stipa	1-9	A, E, F		FS / PS	2	
Stipa lepida	Foothill needlegrass	1-9	A, B, C, D		FS / PS	1	
Stipa pulchra	Purple needlegrass	1-9	A, B, C, E	* !	FS / PS	1	
GROUNDCOVERS							
Achillea millefolium var. californicum	Yarrow	1-9	A, B, C, D, E, F	!	FS / PS	1	
Salvia spathacea	Hummingbird sage	1-9	B, C, E		PS / FS	2	
ANNUALS							
Achyrachaena mollis	Blow wives	1-9	A, B, C	~ o	FS	0.5	
Ambrosia acanthicarpa	Annual bursage	1-9	A, B, C	o	FS / PS	1	
Apiastrum angustifolium	Mock parsley	1-9	A, B, C	~ o	FS	0.5	
Camissoniopsis bistorta	California sun cup	1-9	A, B, C	~	FS	0.5	
Chaenactis glabriuscula	Yellow pincushion	1-9	A, B, C	! ~ o	FS	1	
Cryptantha intermedia	Common cryptantha	1-9	A, B, C	* o	FS	0.5	
Deinandra fasciculata	Clustered tarweed	1-9	A, B, C	~	FS	1.5	
Lasthenia californica	California goldfields	1-9	A, B, C		FS / PS	0.5	
Layia platyglossa	Coastal tidy tips	1-9	A, B, C		FS	2	
Lepidium nitidum	Peppergrass	1-9	A, B, C		FS	0.5	
Phacelia stellaris	Brand's star phacelia	1-6	A, B, C		FS	0.5	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)	MATURE WIDTH (FEET)	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA	POLLINATOR HABITAT	BLOOM COLOR				BLOOM SEASON			
								W	SP	SU	F				
	G/P/GC	(Not Listed)	2-4	1-2	Occasional	X									
	G/P/GC	VL	1-1	2	Occasional	X									
	G/P/GC	VL	1-1	2	Occasional	X	Butterflies	Cream		X					
	P/GC	L	0.5-2	3	Occasional	X	Birds, Butterflies, Bees	White		X	X				
	P/GC	L	1	3+	Occasional	X	Birds, Butterflies, Bees	Red/Pink	X	X	X				
	A	(Not Listed)	1-1.5	0.5	Occasional	X		White		X					
	A	(Not Listed)	3-5	1	Occasional	X	Butterflies, Bees	Cream			X	X			
	A	(Not Listed)	1.5	0.25	Occasional			White		X					
	A	(Not Listed)	1-2	1-2	Occasional	X	Butterflies	Yellow		X					
	A	(Not Listed)	1.5	0.5	Occasional		Bees	Yellow	X	X	X				
	A	(Not Listed)	0.25-1.5	0.25	Occasional		Butterflies, Bees	White/Yellow		X					
	A	(Not Listed)	3	2	Frequent	X	Butterflies, Bees	Yellow		X	X	X			
	A	(Not Listed)	0.5-1.5	0.5	Occasional	X	Butterflies, Bees	Yellow	X	X					
	A	(Not Listed)	0.5-2	0.5-2	Frequent	X	Butterflies	Yellow	X	X					
	A	(Not Listed)	1	0.5	Occasional		Butterflies	White		X					
	A	(Not Listed)	0.25-1	0.25	Occasional		Butterflies, Bees	Lavender		X					

DESERT SCRUB

Desert Creosote Bush Scrub (DS):

The Desert Creosote Bush Scrub is not a community currently native to the LA River watershed, but is native to the low-lying deserts in southeastern California (below 3500 ft). With increased temperatures and more frequent weather extremes, including drought, the plants from this list may perform well in the urban conditions of the LA River corridor. However, this list is not intended to replace the use of California natives currently adapted to Los Angeles but rather lists examples of species that will tolerate increasing temperatures.

- Requires well-drained soils, can tolerate alkaline soils and salt.
- Tolerant of a wide range of temperatures, including intense heat.

Figure 275. *Parkinsonia florida*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=344153>.

Figure 276. *Quercus wislizeni*. Source: Krzysztof Ziarnik, Kenraiz, https://commons.wikimedia.org/wiki/File:Quercus_wislizeni_kz3.jpg.

Figure 277. *Atriplex canescens*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=4269398>.

Figure 278. *Calliandra eriophylla*. Source: Chris English, <https://commons.wikimedia.org/w/index.php?curid=56261079>.

Figure 279. *Fallugia paradoxa*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=3929255>.

Figure 280. *Larrea tridentata*. Source: Andrey Zharkikh, <https://commons.wikimedia.org/w/index.php?curid=60781561>.

Figure 281. *Encelia farinosa*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=204952>.

Figure 282. *Sphaeralcea ambigua*. Source: Stan Shebs, <https://commons.wikimedia.org/w/index.php?curid=8563714>.

Figure 283. *Abutilon palmeri*. Source: Ken-ichi Ueda, <https://www.inaturalist.org/photos/27181425?size=large>.



Parkinsonia florida



Quercus wislizeni



Atriplex canescens



Calliandra eriophylla



Fallugia paradoxa



Larrea tridentata



Encelia farinosa



Sphaeralcea ambigua



Abutilon palmeri

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME		COMMON NAME		SITING + PERFORMANCE			
				FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE
TREES							
<i>Celtis laevigata</i> var. <i>reticulata</i>	Western hackberry	1-9	C, D, E	▲ *	FS / PS	6	
<i>Chilopsis linearis</i>	Desert willow	3-9	C, D, E	+ ▲ *	FS	6	
<i>Parkinsonia florida</i>	Blue palo verde	3-9	C, D, E	▲ *	FS	6	
<i>Quercus wislizeni</i>	Interior live oak	3-9	C, D, E	▲ *	FS	10	
SHRUBS							
<i>Atriplex canescens</i>	Four-wing saltbush	1-9	C, D, E	+ *	FS	4	
<i>Baccharis sarothroides</i>	Broom baccharis	1-9	A, C, D, E	* !	FS	4	
<i>Calliandra eriophylla</i>	Fairy duster	3-9	C, D, E, F	+ *	FS	2	
<i>Encelia actoni</i>	Acton brittlebush	1-9	A, C, D	*	FS	3	
<i>Encelia farinosa</i>	Brittlebush	3-9	A, C, D, E	+ * !	FS	2	
<i>Ephedra viridis</i>	Mountain ephedra	3-9	A, C, D, E	*	FS / PS	3	
<i>Ericameria nauseosa</i>	Rabbitbrush	3-9	A, C, D, E	+ *	FS	4	
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	Leafy California buckwheat	1-9	A, C	+ !	FS / PS	3	
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Interior California buckwheat	3-9	A, C	+ * !	FS / PS	3	
<i>Fallugia paradoxa</i>	Apache plume	3-9	A, C, D	* !	FS / PS	3	
<i>Frangula californica</i> ssp. <i>californica</i>	California coffeeberry	1-9	A, B, C, D	* !	All	6	
<i>Hyptis emoryi</i>	Desert lavender	3-9	C, D, E	*	FS	6	
<i>Isomeris arborea</i>	Bladder pod	1-9	A, C, D, E	+ * !	FS	3	
<i>Justicia californica</i>	Chuparosa	3-9	C, D, E	* !	FS	2	
<i>Larrea tridentata</i>	Creosote bush	3-9	C, D, E	*	FS	4	
<i>Lupinus excubitus</i>	Grape soda lupine	1-9	C, D, E	+ *	FS	4	
<i>Lycium andersonii</i>	Water jacket	1-9	A, C, D, E	*	FS	4	
<i>Peritoma arborea</i>	Bladderpod	1-9	A, B, C	+ !	FS / PS	4	
<i>Prosopis glandulosa</i>	Honey mesquite	3-9	C, D, E, F	+ ▲ *	FS	6	
<i>Salvia apiana</i>	White sage	3-9	A, C, D	+ !	FS	3	
<i>Scutellaria mexicana</i>	Mexican bladdersage	3-9	C, D, E	*	FS / PS	1	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)	MATURE WIDTH (FEET)	OCCURRENCE IN COMMUNITY	OFTEN AVAILABLE IN CA LA LEVEL III ECOREGION	ADJACENT LEVEL III ECOREGION	POLLINATOR HABITAT	BLOOM COLOR	BLOOM SEASON				
										W	SP	SU	F	
	T-D	L	20-40	20-40	Occasional	X		X		Cream		X		
	T-D	VL	25	25	Occasional	X		X	Birds, Butterflies, Bees	White + Pink		X	X	
	T	VL	25	20	Occasional	X		X	Birds, Bees	Yellow		X		
	T-D/S	VL	15-50	10-50	Occasional	X	X		Birds, Butterflies	Cream/Green	X	X		
	S	VL	1-10	3-7	Frequent - Occasional	X	X	X	Birds, Butterflies	Yellow/Green		X	X	
	S	VL	1-12	6	Occasional	X	X	X	Birds, Butterflies, Bees	Cream			X	
	S	VL	1-3	3	Occasional	X		X	Birds, Butterflies, Bees	Pink/Purple	X	X		
	S	VL	5	5	Frequent - Occasional	X	X	X	Bees	Yellow		X	X	X
	S	VL	1-5	4	Occasional	X	X	X	Bees	Yellow	X	X		
	S	VL	3-5	3-5	Frequent - Occasional	X	X			Yellow		X		
	S	(Not Listed)	3-9	3-9	Occasional	X		X	Bees, Butterflies	Yellow			X	X
	S	VL	3-5	2-6	Occasional	X	X	X	Birds, Butterflies, Bees	Red/Cream			X	
	S	VL	3-5	2-6	Occasional	X	X	X	Birds, Butterflies, Bees	Pink/Cream			X	
	S	VL	3-6	6	Frequent - Occasional	X		X		Lavender/Pink/White/ Green		X		
	S	VL	8	12	Occasional	X	X		Birds, Butterflies, Bees	Cream		X	X	
	S	VL	6-12	8	Occasional	X		X		Lavender/Blue	X	X		
	S	VL	1-6	6	Occasional	X	X	X	Birds, Butterflies, Bees	Yellow	X	X		
	S	VL	2-4	4	Occasional			X	Birds, Butterflies, Bees	Red/Yellow		X		
	S	VL	3-12	6-12	Dominant	X		X	Bees	Yellow		X		
	S	L	7	7	Occasional	X	X	X	Birds, Butterflies, Bees	Purple/White		X	X	
	S	VL	6	6	Occasional	X		X	Birds	Cream		X		
	S	VL	3-5	5	Occasional	X	X	X	Birds, Butterflies, Bees	Yellow/Green	X	X		
	T-D/S	L	20-30	30	Occasional	X		X	Butterflies	Yellow		X	X	
	S	VL	3	3-5	Occasional	X	X		Birds, Butterflies, Bees	White	X	X	X	
	S	(Not Listed)	1-3	1-3	Occasional			X	Bees	Purple		X	X	

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
SHRUBS (continued)							
<i>Simmondsia chinensis</i>	Jojoba	1-9	A, C, D, E	+ * !	FS	4	
<i>Sphaeralcea ambigua</i>	Apricot mallow	1-9	A, C, D, E	*	FS	1	
<i>Tecoma stans</i>	Yellow bells	1-9	A, C, D, E	* !	FS	6	
PERENNIALS							
<i>Abutilon palmeri</i>	Palmer's Indian mallow	1-9	A, C, D	*	FS	2	
<i>Asclepias erosa</i>	Desert milkweed	3-9	A, C, D	+ *	FS	1	
<i>Romneya coulteri</i>	Coulter's Matilija poppy	1-9	A, C, D, E	*	FS	3	
GRASSES							
<i>Aristida purpurea</i>	Purple three awn	1-9	A, C, D, E	*	FS	1	
<i>Bouteloua gracilis</i>	Blue Grama	3-9	A, C, D, E	*	FS / PS	1	
<i>Sporobolus airoides</i>	Alkali sacaton	1-5	A, C, D	*	FS	2	
<i>Stipa hymenoides</i>	Indian ricegrass	3-9	A, C, D	*	FS	1	
<i>Stipa speciosa</i>	Desert needlegrass	3-9	A, C, D, E	*	FS	1	
SUCCULENTS							
<i>Agave deserti</i>	Desert agave	3-9	A, C, D	*	FS	3	
<i>Fouquieria splendens</i>	Ocotillo	3-9	A, C, D, E	*	FS	3	
<i>Opuntia basilaris</i>	Beaver tail	3-5, 9	A, C	*	FS	2	
<i>Yucca schidigera</i>	Mojave yucca	1-9	A, C, D	*	FS	3	
VINES							
<i>Vitis girdiana</i>	Desert grape	3-9	G	o	All	2	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)		MATURE WIDTH (FEET)	OCCURRENCE IN COMMUNITY			OFTEN AVAILABLE IN CA LA LEVEL III ECOREGION ADJACENT LEVEL III ECOREGION	POLLINATOR HABITAT	BLOOM COLOR		BLOOM SEASON			
													W	SP	SU	F
	S	VL	3-7	4-7	Occasional	X		X	Birds	Cream		X				
	S	L	3-5	2-4	Frequent - Occasional	X	X	X	Bees, Butterflies	Red/Orange	X	X				
	S	L	15-20	15-20	Occasional	X			Birds, Bees	Yellow			X	X		
	P	L	3-8	3-5	Occasional	X	X	X	Butterflies	Yellow/Orange		X				
	P	VL	3	1	Occasional		X	X	Birds, Butterflies	Cream		X	X	X		
	P	VL	6-8	6-8	Frequent	X	X		Bees, Butterflies	White/Yellow		X	X			
	G/P/GC	VL	1-3	2	Frequent - Occasional	X	X	X								
	G/P/GC	L	.5-2	2	Occasional	X	X	X	Butterflies	Yellow/Tan			X			
	G/P	L	3-4	2	Occasional	X	X	X	Butterflies							
	G/P	VL	1.2-2.3	1.5	Occasional	X	X	X	Butterflies	Yellow		X				
	G/P/GC	(Not Listed)	1-2	1	Frequent		X	X								
	SC	(Not Listed)	1-20	3	Occasional	X		X	Butterflies	Yellow		X	X			
	S/SC	VL	10-20	15	Occasional	X		X	Birds	Red		X	X			
	SC	VL	1-2	2	Occasional		X	X		Pink		X				
	SC	VL	1-16	5	Occasional	X	X	X	Birds, Butterflies	Cream		X				
	V/S-D	L	climbs		Occasional	X	X	X	Birds	Green		X				

CLIMATE-ADAPTED TREES

Climate Adapted Trees (CT):

The following list provides options for both California native and non-native, non-invasive tree species when more species diversity is desired. However, planting the native trees from the prior lists in this chapter is encouraged wherever possible. These trees have also been selected for their ability to survive in often harsh urban conditions and are often tolerant of both smog and heat. If a project is an urban-wildland interface area, the use of non-native species is not encouraged.

- Useful at gateways for visual impact or additional shade.
- Can tolerate the harsh urban environment.
- Additional species can be considered on a per-project basis.

Figure 284. *Cercis occidentalis*. Source: Stan Shebs, https://commons.wikimedia.org/wiki/File:Cercis_occidentalis_1.jpg.

Figure 285. *Chilopsis linearis*. Source: Krzysztof Ziarnek, Kenraiz, <https://commons.wikimedia.org/w/index.php?curid=54448559>.

Figure 286. *Chitalpa tashkentensis*. Source: Frau Siebenschläfer, <https://commons.wikimedia.org/w/index.php?curid=15746538>.

Figure 287. *Hesperocyparis forbesii*. Source: Consultaplantas, https://commons.wikimedia.org/wiki/File:Cupressus_forbesii_1c.JPG.

Figure 288. *Lyonothamnus floribundus* ssp. *asplenifolius*. Source: J Brew, <https://commons.wikimedia.org/w/index.php?curid=15394974>.

Figure 289. *Pinus torreyana*. Source: Richard O. Barry, https://en.m.wikipedia.org/wiki/File:Pinus_torreyana_at_State_Reserve.jpg.

Figure 290. *Quillaja saponaria*. Source: Daderot, <https://commons.wikimedia.org/w/index.php?curid=37387713>.

Figure 291. *Quercus douglasii*. Source: Yath, https://commons.wikimedia.org/wiki/File:Large_Blue_Oak.jpg.

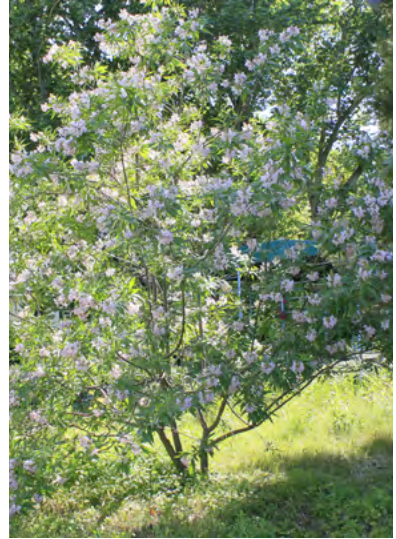
Figure 292. *Tipuana tipu*. Source: Daniel Ventura, <https://commons.wikimedia.org/w/index.php?curid=2246165>.



Cercis occidentalis



Chilopsis linearis



Chitalpa tashkentensis



Hesperocyparis forbesii



Lyonothamnus floribundus ssp. *asplenifolius*



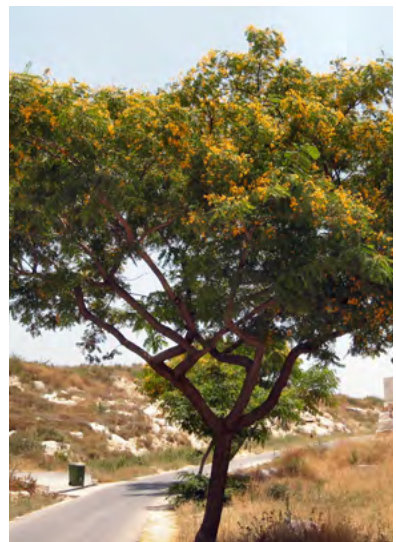
Pinus torreyana



Quillaja saponaria



Quercus douglasii



Tipuana tipu

SPECIES

SITING + PERFORMANCE

BOTANICAL NAME	COMMON NAME	SITING + PERFORMANCE					
		FRAMES FOR BEST PERFORMANCE	CONSTRUCTED CONTEXTS	APPLICATIONS	SUN EXPOSURE	SETBACK FROM PAVEMENT (FEET)	
TREES							
<i>Arbutus 'Marina'</i>	Marina madrone	1-9	C, D, E	+ *	FS	15	
<i>Calocedrus decurrens</i>	Incense Cedar	3-9	A, B, C, D	+	FS / PS	15	
<i>Cercis occidentalis</i>	Western redbud	3-9	B, C, E	+ ^	FS / PS	5	
<i>Chilopsis linearis</i>	Desert willow	3-9	C, D, E	+ ^ *	FS	4-6	
<i>Chitalpa tashkentensis</i>	Chitalpa	1-9	C, D, E	^ *	FS / PS	6-8	
<i>Cordia boissieri</i>	Texas Wild Olive	1-9	A, C, D, E	^ *	FS	6-8	
<i>Cupressus arizonica</i>	Arizona cypress	3-9	A, C, D	*	FS / PS	10	
<i>Dalbergia sissoo</i>	Indian rosewood	3-9	A, C, D, E	* !	FS / PS	10	
<i>Forestiera neomexicana</i>	Desert olive	1-9	A, B, C, D, E	+ ^ *	FS	6-8	
<i>Hesperocyparis forbesii</i>	Tecate cypress	3-9	C, D	+ * !	FS	10	
<i>Laurus nobilis</i>	Sweet Bay	1-9	A, C, D, E	^ *	FS / PS	6-8	
<i>Lophostemon confertus</i>	Brisbane Box	1-5	C, E, F	^	FS / PS	6-8	
<i>Lyonothamnus floribundus ssp. aspleni-folius</i>	Ironwood	1-5	B, C, E	^	FS / PS	6-8	
<i>Olneya tesota</i>	Desert ironwood	3-9	C, D, E	+ *	FS	6-8	
<i>Pinus canariensis</i>	Canary Island pine	1-9	A, B, C, D	*	FS / PS	5	
<i>Pinus coulteri</i>	Coulter pine	3-9	A, B, C	+	FS / PS	6-8	
<i>Pinus eldarica</i>	Eldarica pine	1-9	C, D, E	^ *	FS	6-8	
<i>Pinus halepensis</i>	Aleppo pine	1-9	A, B, C, D, E	*	FS	6-8	
<i>Pinus muricata</i>	Bishop pine	1-9	A, B, C, D, E	*	FS / PS	10	
<i>Pinus pinea</i>	Stone pine	1-9	A, B, C, D, E	^ *	FS	15	
<i>Pinus torreyana</i>	Torrey pine	1-9	A, B, C	+	FS / PS	10	
<i>Quercus chrysolepis</i>	Canyon live oak	1-9	A, B, C, D, E	+ ^	FS / PS	15	
<i>Quercus douglasii</i>	Blue Oak	3-9	A, B, C, D, E	+ ^	FS / PS	10	
<i>Quillaja saponaria</i>	Soapbark tree	1-9	C, D, E	^ *	FS / PS	10	
<i>Searsia lancea</i>	African sumac	1-9	C, D, E	^ * !	FS	10	
<i>Tipuana tipu</i>	Tipu tree	1-9	C, D, E	^ *	FS / PS	15	
<i>Vitex agnus-castus</i>	Chaste tree	1-9	A, B, C, D, E	^ *	FS	5	

DESCRIPTIVE FEATURES

	PLANT FORM	WATER USE (WUCOLS IV)	MATURE HEIGHT (FEET)	MATURE WIDTH (FEET)	LA LEVEL III ECOREGION ECOREGION	ADJACENT LEVEL III ECOREGION	BLOOM COLOR	BLOOM SEASON			
								W	SP	SU	F
	T	M	25-40	50			Pink			X	
	T	M	12-150	50	X	X					
	T-D	L	6-25	10-18	X		Pink		X		
	T-D	VL	25	25	X	X	White + Pink		X	X	
	T-D	L	20-35	20-30			Pink		X	X	X
	T	L	15-25	15-25							
	T	VL	30-80	30	X	X					
	T-D	L	45-60	30-40			Yellow/Cream		X	X	
	T/S	L	10-18	10	X	X					
	T	VL	33	25	X						
	T/S	L	40	30			Yellow		X		
	T	M	30-60	20-40			White			X	
	T	L	30-60	20-40	X		White/Brown		X	X	
	T	(Not Listed)	20-30	20		X	Purple		X		
	T	L	50-80	20-35							
	T	L	30-60	25-40	X						
	T	L	30-55	11-24							
	T	L	30-60	20-40							
	T	L	40-90	30	X						
	T	L	40-50	40-50							
	T	L	40-70	20-45	X						
	T	L	30-90	30-60	X		Yellow/Cream	X	X		
	T-D	VL	15-80	30	X		Yellow/Cream	X	X		
	T	L	25-60	10-35			Yellow/Cream		X	X	
	T	L	20-25	20-35			Yellow/Green			X	
	T-D	L	50	50+			Yellow			X	
	T/S-D	L	8-10	5-8			Purple			X	

ECOLOGY, HABITAT, AND PLANTING CHECKLIST

Reference the LACFCD and Public Works Permitting checklist in Chapter 2 for an overview of project permitting and applicable codes.

Detailed Drawing and Specification Technical Requirements Checklist for Ecology, Habitat, and Planting

Planting Along Levees and Floodwalls

- ☐ Follow the most recent USACE Guidelines.
- ☐ Follow the 17 foot Limited Landscape Management Zone requirements.
- ☐ Indicate in site plan a 3 - 6 foot clear line of sight at access points and trail intersections.
- ☐ Deploy BMPs to capture stormwater where possible.

Maintenance Buffers and Clearances

- ☐ All maintenance vehicles must have ingress and egress clearance at all times.
- ☐ Any alteration or design of service roads must meet with county approval.
- ☐ A minimum 4 foot trees and tall shrub setback from the sidewalk adjacent to vehicular ingress/ egress from arterial streets.
- ☐ Vehicular access gates are to be setback 20 feet from the arterial street curb when available and feasible.
- ☐ Consult with appropriate utility company if working in a utility easement or right-of-way

Soils

- ☐ Test soils. If soils are contaminated, create a remediation plan.
- ☐ Peat shall not be specified as a soil mix component.
- ☐ Test samples of salvaged on-site topsoil, all plant mix materials, and organic material components which are intended to be used for planting soil mixes and final mixes by an independent Soil and Plant Testing Laboratory acceptable to the landscape architect and in accordance with the current standards of the Soil Science Society of America. All reports shall be sent to the landscape architect for approval.

Irrigation

- Irrigation supply and system components shall comply with LA County Low Impact Development Manual, LA County water sources, conservation standards, and current California Green Building Standards Code.
- Use recycled or reclaimed water for irrigation where possible; ensure planting is compatible with salinity levels of irrigation water.
- Provide a soil and water source analysis prior to design of the irrigation system and develop a watering, nutrition, and amendment schedule in response to the analysis.
- Analyze total dissolved salts from water sources to confirm plant types are compatible with saline soils. Provide soil amendments or on-going organic water treatment to reduce high salt or TDS levels.
- All drip irrigation systems shall be installed in a manner that can provide multiple emitters to each container plant.
- Irrigation details shall provide for appropriate use of in-line filters, pressure regulators, pressure compensating emission devices, and end-flush valves.

Wildfire management

- For larger projects or those that interface with a wildlife area, indicate wildfire breaks on the site plan.

ECOLOGY, HABITAT, AND PLANTING CHECKLIST

Reference the LACFCD and Public Works Permitting checklist in Chapter 2 for an overview of project permitting and applicable codes.

Tree and Shrub Planting

- Do not plant species listed as invasive by the California Invasive Plant Council (Cal-IPC).
- Planting in the LA River channel should only occur where excess hydraulic capacity is confirmed.
- Planting plans should show frequency and placement of plant species with graphic hatches and annotations. Hatches can be further detailed with a graphic matrix showing typical plant placement. Sizes and quantity should be indicated on the corresponding plant schedule.
- Identify areas on plan that are habitat focused and those that are program focused.
- In habitat-focused areas, show the that the following criteria is met in the planting schedule:
 - 95% minimum of the total number of plants of the same pot size to be LA River Watershed native species (refer to the native plant community lists in this chapter).
 - 5% maximum of the total number of plants of the same pot size to be native to Los Angeles' Level III ecoregion (Southern California/Northern Baja Coast; Southern California Mountains).
 - 10% minimum of the total number of LA River Watershed native plants of the same pot size to be locally sourced in the LA River Watershed. Higher percentages should be achieved as local supply capacity increases.
- In program-focused areas, show the that the following criteria is met in the planting schedule:
 - 85% minimum of the total number of plants of the same pot size to be native to the LA River Watershed (refer to the native plant community lists in this chapter) or the Level III ecoregions of Los Angeles and just east of Los Angeles, as appropriate per planting context and climate regimes (Southern California/Northern Baja Coast; Southern California Mountains; Mojave Basin and Range; Sonoran Basin and Range).
 - 15% maximum of the total number of plants of the same pot size to be climate-adapted, non-native non-invasive species.

- ❑ Install native planting in the late fall through winter (between November 1 and March 15 or as specified in the schedule prepared by the project landscape architect).
- ❑ Eradicate all existing invasive plant species on site. Existing, non-native, non-invasive species may be retained until senescence then replaced with appropriate native plants.
- ❑ Procure plant material from a nursery that holds an appropriate nursery license with the California Department of Food and Agriculture (CDFA) to sell the requested plant material. Contractor shall submit proof of license that all plant material was obtained by a pest free nursery in good standing with CDFA.
- ❑ Plant material quantities and handling standards must comply with the latest version of the American Standard for Nursery Stock (ANSI Z60.1) published by the American Horticulture Industry Association.
- ❑ Procure plants that are not rootbound.
- ❑ Avoid purchasing plants affected by pathogens and use nurseries that incorporate best practices for pathogen avoidance, such as member nurseries of the Southern California Nursery Best Management Practices (BMP) Group.
- ❑ The contractor shall acquire all seed material of the required type, sizes, and quantities through sources approved by the project landscape architect. Weed seed shall not exceed 1% by weight of the total mixture. Wet, moldy, or otherwise damaged seed shall be rejected.
- ❑ Do not use seeds treated with mercury.
- ❑ Include proper drainage of planting in drawings and installation.
- ❑ Conduct percolation tests to determine positive drainage of all plant pits. Note percolation performance requirements may be designated by the landscape architect or as required in the LA County Public Works Low Impact Development Manual.
- ❑ All plants are to be thoroughly watered upon installation to compact soil and settle plants to natural soil depth. Excessive watering shall be minimized to prevent erosion.
- ❑ Planting areas that are not seeded are to be covered with 3-6" of organic mulch.

ECOLOGY, HABITAT, AND PLANTING CHECKLIST

Reference the LACFCD and Public Works Permitting checklist in Chapter 2 for an overview of project permitting and applicable codes.

Detailed Maintenance Program Checklist for Ecology, Habitat, and Planting

All projects along the LA River are required to develop a three year monitoring and maintenance program prior to start of construction. This program begins on completion of the last day of the planting operation and emphasizes proper application of supplemental water, replacement planting, and weed management to achieve an increased rate of vegetation establishment and growth. Regular inspections and decisions regarding weed management, supplemental irrigation, and additional planting actions should also be in the plan.

3 Year Monitoring and Maintenance Program

Program Management

- ☐ All management actions shall be implemented by experienced crews with knowledge and familiarity of native plants and adaptive management. Education, training, and/or certification in the care of CA native species and habitat planting is required for these maintenance crews.
- ☐ All maintenance actions are to be managed by the landscape architect, botanist, ecologist, or land care professional who is responsible to conduct regular inspections, maintain written records, and to make decisions that will further improve the establishment of the vegetation. Twice monthly visits are to be scheduled in the first sixteen weeks of planting establishment to observe landscape performance. A brief summary report shall be prepared for each visit by approved professionals (the landscape architect, botanist, ecologist, or land care professional).
- ☐ All programs, schedules of maintenance action, and summary reports shall be submitted to the county/contracting officer.

Tree and Shrub Planting

- ☐ Include budget for replacement planting. Long-term management actions and replacement plantings are to emphasize native species and non-invasive species for future climate regimes.
- ☐ Restoration of damage to landscape plantings by acts of vandalism, storms, heavy equipment, or other causes shall be repaired or replaced in a manner that is consistent with the original planting program unless otherwise directed by the landscape architect.(Adjustments to the types of replacement plants may be decided if a particular species is showing inadequate suitability to the conditions of the site.)
- ☐ Plants shall be checked for settlement and shall be reset at proper grade as necessary.
- ☐ Germination and growth of plants is to be inspected on a weekly basis for the first three months following planting to monitor progress and observe problems as they arise.
- ☐ Monitoring should include noting any signs of insect or disease outbreaks, with treatment taken as needed.

- If staking trees is specified they shall be inspected monthly and be maintained to support and protect trees until they are able to stand alone.
- By the end of summer, the project landscape architect, botanist, ecologist, or land care professional is to prepare a detailed program and schedule of supplemental planting actions that must be implemented by fall or early winter to work with the best climate and planting season for native species.
- All supplemental planting actions are to be done with care and in a manner that minimizes disturbance to the adjacent soils and vegetation.

Irrigation

- For native planting, use irrigation systems only for establishment and drought period. Limit summer water after establishment.
- For all plant material irrigation systems, a baseline irrigation watering schedule will be provided to meet the following requirements:
 - **Permanently Irrigated Landscape**
 - Establishment watering schedule is to meet the requirements and recommendations of the plant material provider.
 - Staged watering schedule should be designed to deepen plant root zone growth and ability to thrive on reduced supplemental watering schedule.
 - The proposed watering schedule should provide for future plant root zone growth and established requirements to promote healthy plant establishment and maturation.
 - **Establishment Irrigated Native Landscape**
 - Establishment watering schedule to meet the requirements and recommendations of the native seed and/or plant material provider.
 - Staged watering schedule designed to 'harden off' plant materials over a three-year growth period to encourage deep, stable root growth and the ability to thrive on natural precipitation.
 - The proposed watering schedule will provide for future plant root zone growth and established requirements to promote healthy plant establishment and maturation.

ECOLOGY, HABITAT, AND PLANTING CHECKLIST

Reference the LACFCD and Public Works Permitting checklist in Chapter 2 for an overview of project permitting and applicable codes.

- ☐ All irrigation systems shall be inspected throughout the year. See seasonal maintenance recommendations below.
- ☐ **Spring (seasonal system start-up as applicable)**
 - Prior to heavy summer irrigation system use, complete full system operational check to verify the following:
 - Confirm upcoming watering schedule accords with average weather conditions and upcoming plant establishment requirements.
 - Control system operation, connection to local weather station, rain sensor, master valve, and flow sensor.
 - Test the backflow prevention device for proper operation and protection of upstream water supply.
 - Integrity of mainline and lateral piping, repair leaks, and related failures.
 - Remote control valve operation.
 - Clean drip zone filter kits and test operation.
 - Review operation of each irrigation zone and adjust or repair each emission device for proper operation.
- ☐ **Summer**
 - Once monthly, operate each irrigation zone and repair or adjust as necessary to eliminate leaks, overspray onto hardscape areas, and other system casualties.
- ☐ **Fall (seasonal system shut down as applicable)**
 - Winterize the irrigation system in accordance with local regulation and manufacturer recommendations.

Pruning and Weeding

- Invasive species growth shall be continuously monitored during the planting process. Perform weeding and supplemental mulching as necessary to prevent the spread of invasive species. The specific methods, products, and areas where weeding is proposed shall be approved by the project landscape architect. Refer to Los Angeles County Weed Management Area Best Management Practices manual.⁴²
- All trees and shrubs shall be allowed to grow to their natural genetic form and size. Do not excessively prune plants. Limb tree branches to required height for USACE or LA County Flood Control District maintenance areas only once the trees have reached maturity.
- Include provisions for wildfire management and prevention:
 - Properly prune shrubs to reduce fuel load.
 - Reduce and remove invasive grasses and other invasive annuals which can increase fire risk.
- All pruning and weeding actions are to be done with care and in a manner that minimizes disturbance to the adjacent soils and vegetation.