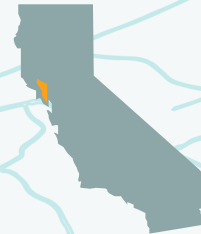




# CLIMATE APPROPRIATE PLANTING

how to **plant the right species**  
to **increase drought resilience**  
and **enhance local ecologies**

for Inland Valleys  
in Sonoma County



# 1

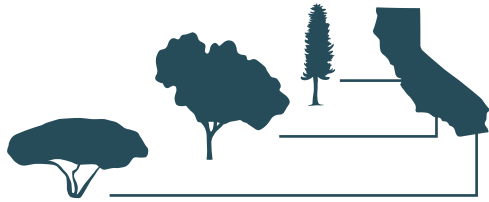
# CLIMATE APPROPRIATE PLANTING

what, why, and how to plant species for **inland valleys with hot summers** to **save water** and **enhance your neighborhood & ecosystem health**

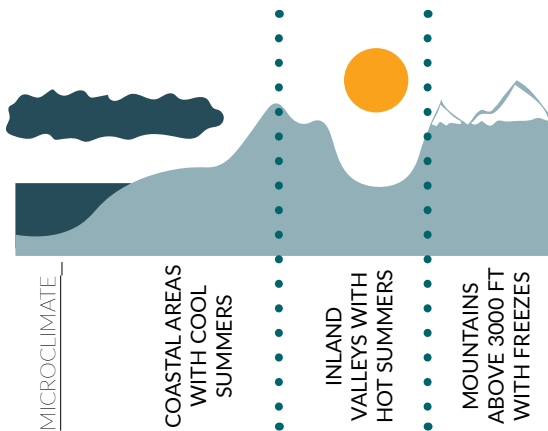


## BASICS

California has a number of different climatic, therefore ecologic, zones that range from the desert to the redwoods. Each has a set of native and climate appropriate plants that are best suited to that environment and should be propagated to the benefit of other plant & animal species and water resources.



Along the Californian coast, regional microclimates are defined by coastal fog, which is trapped by coastal mountains. This leaves coastal inland valleys hotter and dryer than regions sandwiched between the ocean and mountains.



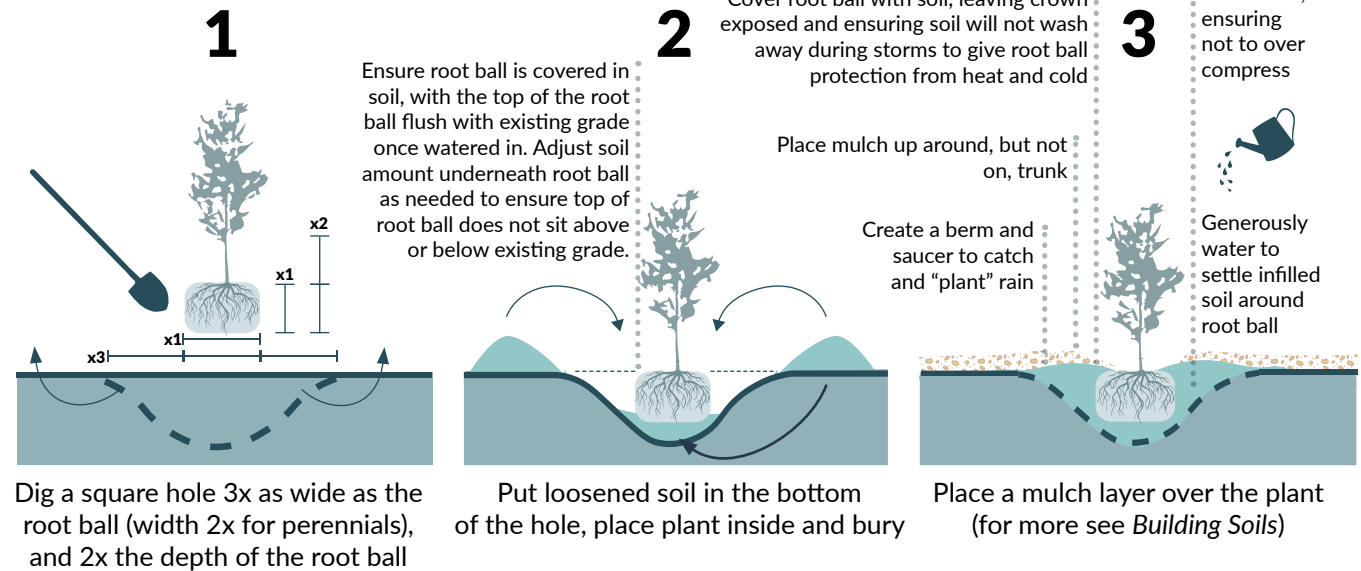
## DO

- ✓ **DO completely remove lawn and other invasive species** before installing Climate Appropriate Planting. Maintain weeding when invasive species re-sprout. [Mulching](#) can help prevent weeds, too!
- ✓ **DO consider microclimates:** Observe your site. Which areas get sun or shade? Where are steep slopes or wetter drainages? What are the soil conditions? [Test your soils.](#)
- ✓ **DO plant native and flowering pollinator plant species:** many native and flowering plants provide critical pollinator habitat as food and shelter.

## DO NOT

- ✗ **DO NOT use potable water to irrigate under-utilized lawn or high water demand plants;** replace with Climate Appropriate Plants or reuse rainwater and greywater.
- ✗ **DO NOT use pesticides and herbicides!** These harm pollinator species.
- ✗ **DO NOT remove leaves.** Keep leaves on the ground and postpone pruning and cutting back. Instead of removing leaves in autumn and through winter, leave them behind to build soil and for pollinating insects to use for their eggs and pupae.

## PLANT IN 3 EASY STEPS!



## ADDITIONAL RESOURCES

We will focus here on the climate appropriate plantings of inland valleys with hot summers, such as the Sonoma Valley region.

Calscape [www.calscape.org](http://www.calscape.org)  
 Bloom! California [www.bloomcalifornia.org](http://www.bloomcalifornia.org)  
 Incorporating Climate Appropriate Planting into a Holistic Landscape: [www.savingwaterpartnership.org](http://www.savingwaterpartnership.org)

Land Resilience Partnership [www.landresiliencepartnership.org](http://www.landresiliencepartnership.org)  
 Daily Acts [www.dailyacts.org](http://www.dailyacts.org)  
 California Native Plant Society [www.cnps.org](http://www.cnps.org)

# 2

# CLIMATE APPROPRIATE PLANTS

## DROUGHT TOLERANT, HABITAT SPECIES all species low water usage

### WATER NEEDS

low

### SOIL DRAINAGE

*fast* (sandy-silty)  
*medium* (loam)  
*slow* (clay)  
*adaptable*

### POLLINATOR

butterfly / moth  
 bird  
 bee

### SUN/SHADE

full sun  
 partial sun / shade  
 full shade

### OTHER CONSIDERATIONS

erosion control  
 allelopathic: consult [Calscape](#) for context and companion plants  
 CA native  
 Clay Tolerant

### TREES

*Quercus agrifolia*  
Coast Live Oak

*Aesculus californica*  
California Buckeye

*Quercus lobata*  
Valley oak

### LARGE SHRUBS

*Rhamnus californica*  
Coffeeberry

*Heteromeles arbutifolia*  
Toyon

*Sambucus mexicana*  
Blue Elderberry

*Ceanothus 'Ray Hartman'*  
Ray Hartman Ceanothus

*Cercis Occidentalis*  
Western Redbud

*Morelia californica*  
Wax Myrtle

*Quercus wislizeni*  
Interior Live Oak

*Ribes sanguineum*  
Red Flowering Currant

*Carpenteria californica*  
Bush Anemone

# 3

## CLIMATE APPROPRIATE PLANTS

### DROUGHT TOLERANT, HABITAT SPECIES

all species low water

#### WATER NEEDS

low

#### SOIL DRAINAGE

fast (sandy-silty)  
 medium (loam)  
 slow (clay tolerant)  
 adaptable

#### POLLINATOR

butterfly / moth  
 bird  
 bee

#### SUN/SHADE

full sun  
 partial sun / shade  
 full shade

#### OTHER CONSIDERATIONS

erosion control  
 CA native  
 Clay Tolerant

#### SHRUBS



*Ceanothus* ssp.  
**California Lilac**



*Arctostaphylos* ssp.  
**Manzanita**



*Rosa californica*  
**California Wild Rose**



*Artemisia californica*  
**California Sagebrush**



*Lupinus albifrons*  
**Silver Lupine**



*Ceanothus* 'Valley Violet'  
**Valley Violet Ceanothus**



*Arctostaphylos bakeri* 'Louis Edmunds'  
**Louis Edmunds Baker's Manzanita**



*Diplacus aurantiacus*  
**Bush Monkeyflower**



*Salvia clevelandii*  
**Cleveland Sage**



*Eriogonum fasciculatum*  
**California Buckwheat**



*Ceanothus* 'Concha'  
**Concha Ceanothus**



*Arctostaphylos* 'Howard McMinn'  
**Howard McMinn Manzanita**



*Garrya elliptica*  
**Coast Silktassel**



*Salvia apiana*  
**White Sage**



*Rhamnus californica* 'Eve Case'  
**Eve Case Coffeeberry**

# 4

# CLIMATE APPROPRIATE PLANTS

## DROUGHT TOLERANT, HABITAT SPECIES

all species low water

### WATER NEEDS

low

### SOIL DRAINAGE

fast (sandy-silty)  
 medium (loam)  
 slow (clay)  
 adaptable

### POLLINATOR

butterfly / moth  
 bird  
 bee

### SUN/SHADE

full sun  
 partial sun / shade  
 full shade

### OTHER CONSIDERATIONS

erosion control  
 CA native  
 Clay Tolerant

### PERENNIALS



*Symphytichum chilense 'Purple Haze'*  
**Purple Haze Coast Aster**



*Epilobium canum*  
**California Fuchsia**



*Salvia spathacea*  
**Hummingbird Sage**



*Eriogonum grande var. rubescens*  
**Red-flowered Buckwheat**



*Eriophyllum lanatum*  
**Woolly Sunflower**



*Asclepias fascicularis*  
**Narrow Leaf Milkweed**



*Asclepias speciosa*  
**Showy Milkweed**



*Heuchera spp.*  
**Coral Bells**



*Achillea millefolium*  
**Yarrow**



*Nepeta racemosa 'junior walker'*  
**Catmint**



*Solidago velutina ssp. californica*  
**California Goldenrod**



*Penstemon heterophyllus 'Margarita BOP'*  
**Margarita Bop Penstemon**



*Iris douglasiana*  
**Douglas Iris**



*Monardella villosa*  
**Coyote Mint**



*Agastache foeniculum*  
**Anise Hyssop**

# 5





# CLIMATE APPROPRIATE PLANTS

## DROUGHT TOLERANT, HABITAT SPECIES




### WATER NEEDS

-  low
-  medium



### SOIL DRAINAGE

-  *fast* (sandy-silty)
-  *medium* (loam)
-  *slow* (clay)
-  *adaptable*

### POLLINATOR

-  butterfly / moth
-  bird
-  bee

### SUN/SHADE

-  full sun
-  partial sun / shade
-  full shade

### OTHER CONSIDERATIONS

-  erosion control
-  CA native
-  Clay Tolerant

### GRASSES



*Muhlenbergia rigens*  
Deergrass



*Calamagrostis foliosa*  
Leafy Reed Grass



*Deschampsia cespitosa*  
Tufted Hair Grass



*Festuca californica*  
California Fescue



*Stipa pulchra*  
Purple Needle Grass



*Carex praegracilis*  
California Field Sedge



*Festuca idahoensis*  
Idaho Fescue



*Leymus condensatus* 'Canyon Prince'  
Canyon Prince Wild Rye

### GROUNDCOVERS



*Eschscholzia californica*  
California Poppy



*Arctostaphylos* 'Emerald Carpet'  
Emerald Carpet Manzanita



*Salvia* 'Bee's Bliss'  
Bee's Bliss Sage



*Ceanothus griseus horizontalis*  
Carmel Creeper



*Corethrogyne filaginifolia*  
'Silver Carpet'  
Silver Carpet Aster



*Clinopodium douglasii*  
Yerba Buena

# 6

## RAIN GARDEN PLANTS



### SOIL DRAINAGE

- ↓↓↓ fast (sandy-silty)
- ↓↓ medium (loam)
- ↓ slow (clay)
- ↑ adaptable

### POLLINATOR

- butterfly / moth
- bird
- bee

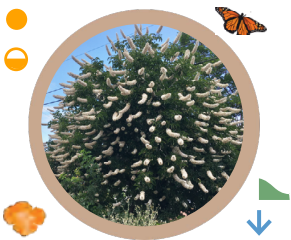
### SUN/SHADE

- full sun
- partial sun / shade
- full shade

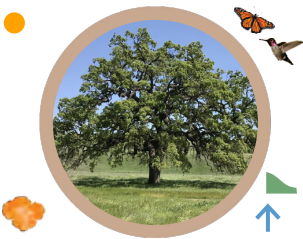
### OTHER CONSIDERATIONS

- erosion control
- allelopathic: consult [Calscape](#) for context and companion plants
- CA native
- Clay Tolerant

### TREES



*Aesculus californica*  
**California Buckeye**



*Quercus lobata*  
**Valley Oak**



*Quercus agrifolia*  
**Coast Live Oak**

### SHRUBS



*Carpinteria californica*  
**Bush Anemone**



*Cercis occidentalis*  
**Western Redbud**



*Salvia clevelandii*  
**Cleveland Sage**



*Heteromeles arbutifolia*  
**Toyon**



*Rhamnus californica*  
**Coffeeberry**



*Eriogonum fasciculatum*  
**California Buckwheat**



*Ceanothus spp.\**  
**California Lilac**



*Diplacus aurantiacus*  
**Bush Monkeyflower**



*Berberis nervosa*  
**Oregon Grape**

### GRASSES



*Muhlenbergia rigens*  
**Deergrass**



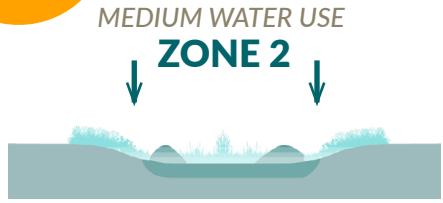
*Festuca idahoensis*  
**Idaho Fescue**



*Stipa pulchra*  
**Purple Needle Grass**

# 7

## RAIN GARDEN PLANTS



### SOIL DRAINAGE

- ⚡ fast (sandy-silty)
- ⚡ medium (loam)
- ↓ slow (clay)
- ↑ adaptable

### POLLINATOR

- 🦋 butterfly / moth
- 🐦 bird
- 🐝 bee

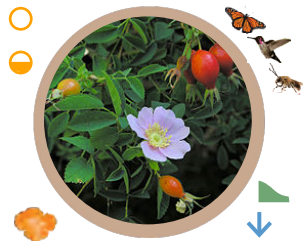
### SUN/SHADE

- full sun
- ◐ partial sun / shade
- full shade

### OTHER CONSIDERATIONS

- ▴ erosion control
- 🌸 CA native
- 🟫 Clay Tolerant

### SHRUBS



*Rosa californica*  
**California Wild Rose**



*Sambucus mexicana*  
**Blue Elderberry**



*Morelia californica*  
**Wax Myrtle**

### PERRENNIALS



*Polystichum munitum*  
**Western Sword Fern**



*Clinopodium douglasii*  
**Yerba Buena**



*Heuchera maxima*  
**Coral Bells**



*Achillea millefolium*  
**Yarrow**



*Artemisia douglasiana*  
**Mugwort**



*Solidago velutina* ssp. *californica*  
**California Goldenrod**



*Iris douglasiana*  
**Douglas Iris**



*Rudbeckia* spp.  
**Cone Flowers**



*Calamagrostis foliosa*  
**Leafy Reed Grass**



*Festuca californica*  
**California Fescue**



*Leymus condensatus* 'Canyon Prince'  
**Canyon Prince Wild Rye**

# 8

## RAIN GARDEN PLANTS

HIGHER WATER USE\*

**ZONE 1**



### SOIL DRAINAGE

- ⚡ fast (sandy-silty)
- ⚡ medium (loam)
- ↓ slow (clay)
- ↑ adaptable

### POLLINATOR

- 🦋 butterfly / moth
- 🐦 bird
- 🐝 bee

### SUN/SHADE

- full sun
- ◐ partial sun / shade
- full shade

### OTHER CONSIDERATIONS

- 🌱 erosion control
- 🌸 CA native
- 🟫 Clay Tolerant

### TREES\*\*



*Fraxinus latifolia*  
**Oregon Ash**



*Salix laevigata*  
**Red Willow**



*Salix lasiolepis*  
**Arroyo Willow**

### SHRUBS

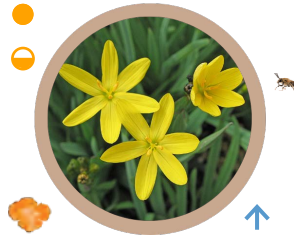


*Cornus sericea*  
**Red Osier Dogwood**



*Calycanthus occidentalis*  
**Spice Bush**

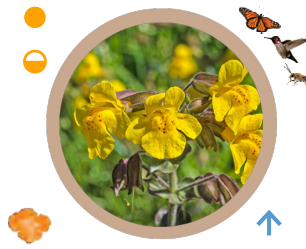
### PERRENIALS



*Sisyrinchium californicum*  
**Yellow Eyed Grass**



*Sisyrinchium bellum*  
**Blue Eyed Grass**



*Erythranthe guttata*  
**Seep Monkey Flower**



*Anemopsis californica*  
**Yerba Mansa**

### GRASSES



*Juncus textilis*  
**Basket Rush**

### GRASSES



*Juncus patens*  
**California Gray Rush**



*Carex praegracilis*  
**California Field Sedge**



*Deschampsia cespitosa*  
**Tufted Hair Grass**

\*Plants may require supplemental irrigation




\*\*Trees only appropriate for very large rain gardens

# 9

## GREYWATER PLANTS

### Plants that can be irrigated by greywater systems

#### SUN/SHADE

-  full sun
-  partial sun / shade
-  full shade

#### OTHER CONSIDERATIONS

-  edible
-  CA native
-  Clay Tolerant\*

#### TREES



*Diospyros kaki*  
Persimmon



*Citrus spp.*  
Citrus tree

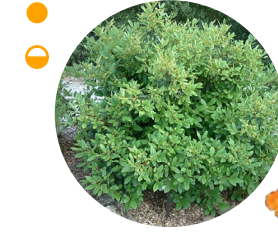


*Ficus carica*  
Common fig

#### SHRUBS



*Acca sellowiana*  
Pineapple Guava



*Rhamnus californica*  
Coffeeberry



*Punica granatum*  
Pomegranate

#### PERENNIALS



*Achillea mellifolium*  
Yarrow



*Ribes aureum*  
Golden Currant



*Cynara scolymus*  
Artichoke

#### GRASSES



*Calamagrostis foliosa*  
Leafy Reed Grass



*Carex barbata*  
Basket Sedge



*Carex praegracilis*  
California Field Sedge

#### VINES



*Actinidia argata*  
Hardy Kiwi



*Humulus lupulus*  
Hops Vine



*Clematis ligusticifolia*  
Virgin's Bower




\*other listed plants may tolerate clay if soil is amended, consult resources

# 10

## GREYWATER PLANTS

### Plants that can be irrigated by greywater systems

#### SUN/SHADE

-  full sun
-  partial sun / shade
-  full shade

#### OTHER CONSIDERATIONS

-  edible
-  CA native
-  Clay Tolerant\*

#### TREES

#### SHRUBS

#### PERRENIALS

#### GRASSES

#### VINES



*Acacia sellowiana*  
Olive Tree



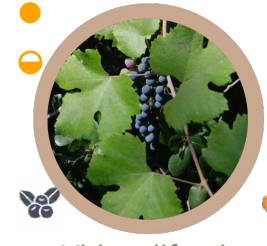
*Rubus ursinus*  
California Blackberry



*Iris douglasiana*  
Douglas Iris



*Juncus textilis*  
Basket Rush



*Vitis californica*  
CA Grape  
(and cultivated varieties)



*Morus alba x rubra*  
Pakistan Mulberry



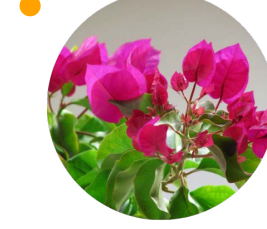
*Rosa californica*  
California Wild Rose



*Heuchera spp.*  
Coral Bells



*Juncus patens*  
California Gray Rush



*Bougainvillea glabra*  
Bougainvillea



*Sambucus mexicana*  
Blue Elderberry



*Rubus idaeus*  
Red Raspberry



*Epilobium canum*  
California Fuchsia



*Deschampsia cespitosa*  
Tufted Hair Grass



*Passiflora edulis*  
Passionfruit Vine

\*other listed plants may tolerate clay if soil is amended, consult resources