



# FIRE-RESISTANT LANDSCAPING FOR Erosion Prone Areas

## DISCLAIMER

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California Poppies and Wild Lilac in bloom

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A California Native oriented  
planting guide for the wild  
land- urban interface.



Inland Empire  
Landscape Alliance





This guide is a supplement to the *Water-Wise Homeowner Landscape Guide*. Landscapes along the mountain foothills and wilderness interface in California are especially susceptible to fire, making plant choice, design, and maintenance particularly important to ensure home safety. The plants in this guide showcase some wonderful California Native plants that work well in fire and erosion prone areas to help reduce fire risk, while simultaneously lowering water needs.



## PLANT COMMUNITY

Historically the foothills of Southern California are part of the Oak Woodland, Chaparral, Coastal Sage Scrub plant communities. Semi-woody shrubs and grasses grow in an open pattern from the coast into the foothills dotted with signature oaks.

Many of these plants depend on the fire cycle to perpetuate their ecological cycles. The heat of the fire clears litter and allows new plants to grow. As well, many have developed growth patterns that stabilize the ground and decrease the risk of soil erosion after a fire.

These plants can and will regenerate after a fire-erosion cycle. However, today they cannot out compete non-native plants introduced by development. By using native plants in home landscaping, we can rebuild the plant community that used to exist. One that is fire resistant, water-wise, and truly representative of California's natural beauty.

The Southern Californian foothills and the native plant communities depend on the fire flood cycle to ensure longevity.



Landscape design and maintenance is more important than the species planted to create fire resistant, defensible space.

### ZONE 1: 0-30'

- Low density planting of native shrubs. (5-10' gap between plants). Many burn slower than popular non-natives.
- Prune trees "up" so that someone can walk beneath them.
- Thin out bushes and remove dead grass, litter, and limbs.
- Supplemental water during dry months every two weeks. (wash foliage off but don't get the ground wet).

### ZONE 2: 31-100'

- Vegetation should compose 60-70% of landscape. Large weed free open spaces 30-40%.
- Clean up litter, prune up and trim dead brush and tree.
- Regular water (15 minutes/week) for most native installations
- Alternative: install walkways in open spaces. This is cheaper, more fire resistant, and often more attractive. Plantings are decreased and less water is needed. Result is firebreaks and access to the landscaping for maintenance.



### ZONE 3: 100' +

- Thin brush and trees so there is a 10' space between all plants over 5'.
- Smaller plants can be left in clumps less than 10' and with 10-15' spaces between clumps.
- Natural look while removing potential fuel and making it difficult for flames to jump.
- Open patches of bare soil are natural to pre-Columbian California.

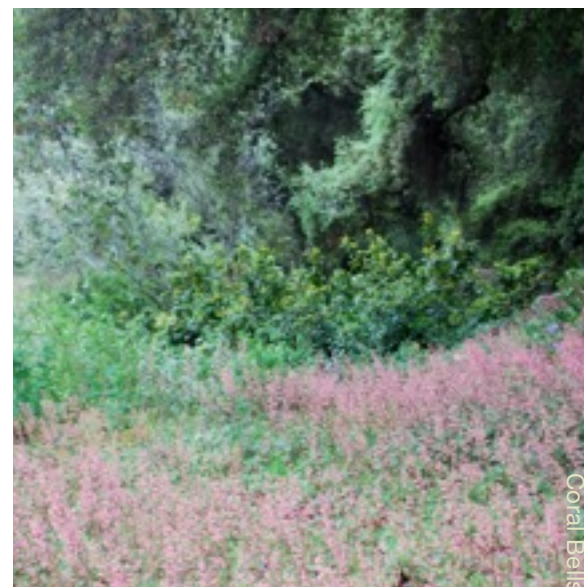
### GENERAL DESIGN

- ☐ Break up the "fire path" by spacing trees so crowns will not touch when mature
- ☐ Plant taller shrubs away from the house in widely spaced groups with mulch or low ground covers between them
- ☐ Create a defensible space around the house with patios, walks, walls, low ground covers and rocks
- ☐ Locate fences, trellises, decks, and other flammable structures so that they do not create a continuous path for fire

### FIRE WISE SLOPES

During the first major rain the native sites have high erosion, and after the third or fourth rain erosion slows. Artificially seeded slopes can burn the next year. Non-seeded sites need years before they can burn again.

Protect natural vegetation, it holds the hillsides together. Extensive root systems survive fire and draw moisture up to the surface root systems.



Coral Belis



# Fire Wise Planting Guide

Plants with low moisture content and high oil content may be more likely to burn, but a plant's ability to resist fire is strongly influenced by landscape design and maintenance.

- Arrangement, spacing, density, and dryness of the vegetation and probably more important than species planted.

- All plants burn under the right conditions

## PLANT INFORMATION KEY

Latin Name: *Genus species*, Common Name.

Notes about plant.

Water Needs (Moderate - Very Low) \*

Fire Danger: **HIGH MEDIUM LOW**

Erosion Resistance: **HIGH MEDIUM LOW**

\* Water Needs: Moderate, Low, Very Low. Visit [www.bewaterwise.com/calculator](http://www.bewaterwise.com/calculator) to create a customized irrigation schedule.



*Arctostaphylos ssp.*, Manzanita.  
See nursery for specific details.  
Low Water FIRE EROSION



Pacific Coast Iris and Oenothera

## FIRE WISE MAINTENANCE

- Prune trees and shrubs to thin and eliminate dead branches
- Cut back ground covers periodically to renew growth
- Remove dead plants, mow dead grass
- Remove leaves and needles from roofs, eaves, and gutters
- Keep fences cleared of vines, grasses, and windblown debris
- Water according to each plant's needs. Too much or too little water can make plants more vulnerable to fire.
- Check with your city and local fire department for existing ordinances, policies and suggestions.



*Lupinus albifrons*, Lupine. Quickly regrows after fire. Low Water FIRE EROSION



*Epilobium canum* ssp. *canum*, California Fuchsia. Thin out. Low Water FIRE EROSION



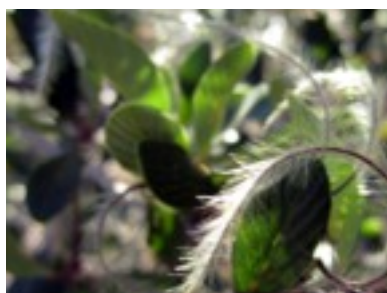
*Justicia californica*, Chuparosa. Takes Pruning, burn out moisture to burn leaf. Low Water FIRE EROSION



*Symphoricarpos albus laevigatus*, Common Snowberry. Low Water FIRE EROSION



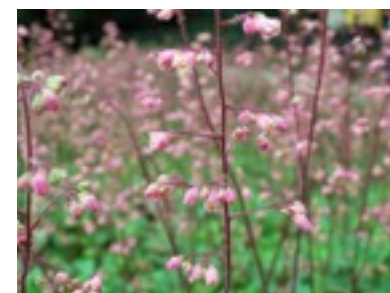
*Eriogonum fasciculatum*, California Buckwheat. Keep thin, plant doesn't like dust. Low Water FIRE EROSION



*Cercocarpus betuloides*, Mountain Mahogany. Ornamental flowering, ground cover. Low Water FIRE EROSION



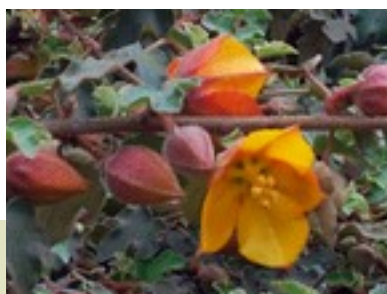
*Mahonia aquifolium*, Oregon Grape. Moderate Water FIRE EROSION



*Heuchera* 'Wendy', Coral Bell. Attractive ornamental flowering. Low Water FIRE EROSION



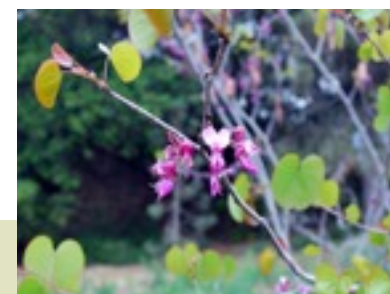
*Trichostema lanatum*, Woolly Blue Curl. Low Water FIRE EROSION



*Fremontodendron californicum*, California Flannel Bush. Thin out. Very low Water FIRE EROSION



*Eschscholozia californica*, California Poppy. Quickly grows after fire. Low Water FIRE EROSION



*Cercis occidentalis*, Western Redbud. Low Water FIRE EROSION





*Quercus agrifolia*, Coast Live Oak. Keep maintained for fire resistance. Low Water FIRE EROSION



*Encelia californica*, Bush Sunflower. Does better with more irrigation, takes pruning. Low Water FIRE EROSION



*Heteromeles Arbutifolia*, Toyon. Takes Pruning, burn out moisture to burn leaf. Low Water FIRE EROSION



*Vitis ssp.*, Wild Grape. Keep maintained for fire resistance. Moderate Water FIRE EROSION



*Arbutus menziesii*, Pacific Madrone. Dry foliage and bark flammable, needs maintenance. Low Water FIRE EROSION



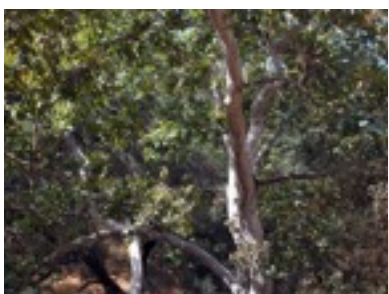
*Rosa californica*, California Rose. Ornamental flowering, ground cover. Low Water FIRE EROSION



*Opuntia x vaseyi ssp*, Vasey's Coastal Prickly Pear. Succulent. Very low Water FIRE EROSION



*Ceanothus ssp.*, Wild Lilac. Prune to keep open. Low Water FIRE EROSION



*Platanus racemosa*, California Sycamore. Keep maintained for fire resistance. Moderate Water FIRE EROSION



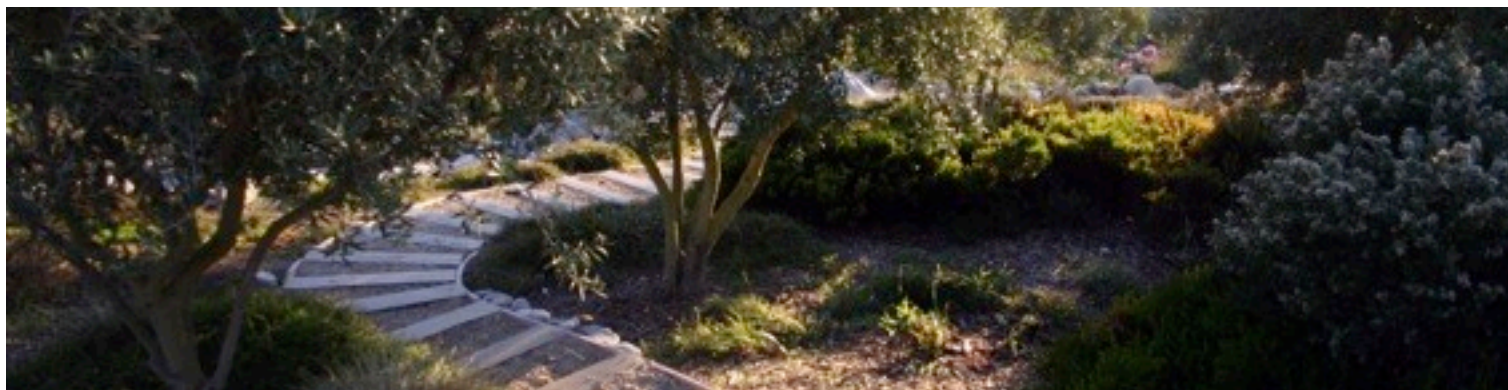
*Baccharis pilularis*, Coyote Bush. Deer proof, doesn't need water for resistance. Very low Water FIRE EROSION



*Mimulus aurantiacus.*, Monkey Flower. Attractive ornamental flowering. Low Water FIRE EROSION



*Salvia 'Gracias'*, Creeping Sage. Keep watered, clean, and tidy. Low Water FIRE EROSION



## INFORMATION, PUBLICATIONS, SOURCES, RESEARCH, DEMONSTRATION GARDENS AND WHERE TO PURCHASE PLANTS

**Chino Hills Fire Department Water Wise Gardens** ([chinovallefire.org/fire\\_prevention.461.0.html](http://chinovallefire.org/fire_prevention.461.0.html)) Localized information about fire prevention from the independent fire department.

**Eaton Canyon Fire Trail** ([ecnca.org](http://ecnca.org)) a 190-acre nature preserve at the base of the San Gabriel Mountains showcasing hiking and equestrian trails, natural habitats, and native plant materials.

**Maloof Foundation Garden** ([malooffoundation.org/garden.cfm](http://malooffoundation.org/garden.cfm)) Demonstration garden showing low-water gardening, incorporation of art and plant material, hydrozoning, and native and Mediterranean plant material.

**Las Pilitas Nursery** ([laspilitas.com](http://laspilitas.com)) Seller of native Californian plants. Offers tips, how-tos, and growing information for hundreds of natives. Also gives information and plant lists on speciality gardens.

**Rancho Santa Ana Botanical Gardens** ([rsabg.org](http://rsabg.org)) Based in Claremont, RSABG is

the largest botanical garden dedicated to California native flora and fauna.

**Theodore Payne Foundation for Wildflower and Native Plants** ([theodorepayne.org](http://theodorepayne.org)) Educational, recreational and retail nursery and garden to promote the preservation of California plant materials. Serves as demonstration garden for both ornamental and natural settings.

**Descanso Gardens** ([descansogardens.org](http://descansogardens.org)) Located in La Canada. Has many gardens dedicated to various plants from around the world. The California Garden highlights native flora to revive interest, educate school children and act as a demonstration garden for homeowners.

**Sustainable and Fire Safe (SAFE)** ([groups.ucanr.org/SAFE](http://groups.ucanr.org/SAFE)) Specific to the wildland-urban interface in California, SAFE strives for sustainable fire-resistant

landscaping solutions. Guide offers design, planting, and maintenance advice.

**Centre for Fire Research and Outreach** ([firecenter.berkeley.edu](http://firecenter.berkeley.edu)) University based group that researches and collaborates to find a sustainable co-existence with wildfire. Science based solutions for homeowners, business, and researchers.

**CNPS - California Native Plant Society** ([cnps.org](http://cnps.org)) Attempts to preserve California plant native ecology for future generations. Database of plant information and network for growing and landscaping tips.

**Plant Right** ([plantright.org](http://plantright.org)) Information on invasive plant prevention in California and ways to get involved in the Native Plant movement.

**California Oaks Foundation** ([californiaoaks.org](http://californiaoaks.org)) Non-profit organization to inform about the importance of protecting and perpetuating California's native oak woodland, wildlife, and watersheds.

**Firescaping** (Douglas Kent) Book that describes how to assess a landscape's fire risk, how to create a fire-resistant landscape and garden space, and how to minimize the impact of wildfire.

### More Recommended Reading:

Care and Maintenance of Southern California Native Plant Gardens by Bart O'Brien, Betsey Landis, and Ellen Mackey

Landscape Plants for California Gardens by Robert Perry

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

Reimagining the California Lawn by Carol Bornstein, David Fross, Bart O'Brien, John Evarts

Water Wise Gardening for the Inland Empire ([wmwd.watersavingplants.com](http://wmwd.watersavingplants.com))