

# TREE OF LIFE --- NURSERY

## Fire-resilient Landscapes: Creating Beautiful Gardens for Defensible Space

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### CRITERIA FOR LANDSCAPE DESIGN

#### Aesthetic

- Engagement (human)

- Appearance

- Wildlife - urban habitat

  - Biodiversity

  - Target species

  - Beneficial invertebrates (including pollinators)

- Locally relevant

#### Practical

- Water conservation

- Sensible maintenance needs

- Sustainable, regenerative

- Cost effective

#### Pragmatic

- Watershed, erosion

- Availability of materials

- Fire safety

### NATURALISTIC DESIGN

Meets criteria listed above

### NATIVE PLANTS

Components of naturalistic design

Turgidity - water content in leaves and stems

## FIRE SAFETY

Important, but when put as top priority in Criteria, limits everything else

Evaluate each site and prioritize accordingly

Landscape design for fire safety cannot completely mitigate previous mistakes

- Regional planning blunders

- Site design errors

- Location, access

- Architecture, building materials

- Intended use of site

## BASIC CONSIDERATIONS

- Likelihood of fire

- Source of ignition

- Conditions under which fire would be a serious threat

- Potential severity of fire

- Most vulnerable places or site factors

## BASIC PRINCIPLES - PLANTS

- Avoid using plants with high content volatile oil
  - Many conifer species
  - Laurel sumac (*Malosma laurina*)
  - Chamise (*Adenostoma fasciculatum*)
- Avoid using perennials and annuals that can become "flash fuels" on the ground
  - Deerweed (*Lotus scoparius*)
  - Tall, tangles annuals from seed i.e.: tall lupines and phacelia
  - Cool season grasses which are summer dry/dormant
- Avoid using subshrubs that can build up dead wood in their centers
  - California buckwheat (*Eriogonum fasciculatum*) - tall growing forms
  - Sages (*Salvia* species) - tall growing forms
  - Coastal sagebrush - (*Artemisia californica*) - tall growing forms

- Avoid creating fuel ladders
  - Low, medium, and tall plants - don't plant close to each other
- Avoid overcrowding
  - Proper spacing
  - Planned succession
- Plan for pruning maintenance, short and long term
  - Keep low plants low, promoting lots of new growth
  - Keep medium and tall plants thinned, removing inner branches
  - Keep dead wood out of all plants
  - Keep invasive exotics out

## BASIC PRINCIPLES - DESIGN

Consider all the criteria

Place fire safety in in proper place in the order of considerations

## PLANTS - LOW

- *Grindelia stricta*
- *Baccharis pilularis* (groundcover varieties)
- *Iva hayesiana*
- *Ceanothus* (groundcover varieties)
- *Arctostaphylos* (groundcover varieties)
- *Ribes viburnifolium* (shade)
- *Salvia* (low cultivars)
- *Eriogonum* (low cultivars)
- *Adenostoma* (low cultivars, i.e.; 'Nicolas')

## PLANTS - MEDIUM

- *Rhamnus californica* (low varieties)
- *Rhus integrifolia*, *R. ovata*
- *Ceanothus* species and cultivars (medium height)
- *Arctostaphylos* species and cultivars (medium height)
- *Cercocarpus betuloides*

## PLANTS - TALL

- *Quercus* species
- *Prosopis* species

- *Prunus lyonii*
- *Lyonothamnus floribundus* ssp. *asplenifolius*

#### PLANTS - SPECIMEN

- *Nolina* species
- *Yucca* species
- *Agave* species

#### PLANTS - FIRE RETARDANT AND FIRE RESPONDENT

- *Isocoma menziesii*
- *Ericameria* species
- *Atriplex* species
- *Berberis nevini*
- *Simmondsia chinensis*
- *Shepherdia argentea*
- *Prunus ilicifolia*
- *Sphaeralcea ambigua*
- *Viguiera laciniata*
- *Calliandra californica*
- *Sphaeralcea ambigua*
- *Cleome arborea*
- *Rhamnus californica*

#### PLANTS - SHADE

- *Ribes viburnifolium*
- *Symphoricarpos mollis*
- *Iris* 'Pacific Coast Hybrids'
- *Heuchera maxima* plus cultivars
- *Solidago californica*
- *Monardella* species
- *Fragaria californica*
- *Potentilla californica*
- *Rhamnus californica*
- *Philadelphus californica*
- *Arctostaphylos* (groundcover varieties)
- *Ribes* species (currants and gooseberries)

#### PLANTING COMBINATIONS

- *Opuntia littoralis* patches, or rock outcrops interplanted with:
  - *Romneya* 'White Cloud'
  - *Rosa californica*
  - *Sambucus mexicana*
  - *Epilobium californicum* (many cultivars available)
  - *Eriogonum* species
  - *Gambelia speciosa*
  - *Verbena lilacina*
  - *Mirabilis californica*
  - *Mimulus aurantiacus*, *M. puniceus*
  - Other showy low growing flowering natives
  - Plus: All of the following, interplanted with *Iva*)
- *Iva hayesiana* - nondescript dull green groundcover interplanted with:
  - All of the above (interplanted with *Opuntia*) plus:
  - *Mimulus aurantiacus*, *M. puniceus*
  - *Penstemon spectabilis*
  - *Venegasia carpesioides*
  - *Viguiera laciniata*
  - *Hesperoyucca whipplei*
  - *Heteromeles arbutifolia*
  - Other showy low growing flowering natives

## BARE EARTH, AGGREGATE TOPDRESS

Strategic placement

Aesthetic design

Bisected by plantings

Effective wildlife habitat

Pollinators, especially native bees

Ecological "Edge Effect"

Planted with xeric species

- *Agave* species
- *Opuntia* species
- *Yucca schidigera*
- *Salvia* species and cultivars
- *Eriogonum* species

- Condea (Hyptis) emoryi
- Fallugia paradoxa
- Trichostema lanatum
- Arctostaphylos species and cultivars  
tall, thinned, artfully pruned

California native plants

Resilient to human efforts to reduce fire "risk"  
(to a point)

Resilient to fire

Naturalistic design employing nature's examples

Biodiversity

Beauty in truly sustainable landscapes

FIRE SAFE, FIRE CONSIDERATE, FIRE RESILIENT

Develop a design philosophy taking examples from nature's beauty and biodiversity to make functionally sustainable gardens that are fire-safe (well, more like fire considerate).

Use only native plants in fire-safe landscapes because the pressures of land development and vegetation control statewide in the name of "fire prevention" are so great. simply stated we have to:

"Do enough before it's too late."

Richard Stephen Felger (1926-2020)

NATURE IS ALWAYS THE MODEL