Fire Resistant Landscaping June 2026

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Welcome and a bit about me…

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1. My occupation: Ecologically informed landscaping and land management.
2. South Skyline FireSafe Council board member.
3. Education: Biology, Ecology, Evolution, and lots of plant science stuff at Foothill College, UC Santa Cruz, U of Idaho.
4. I am a 3rd generation La Honda lady (raising my daughter on 40 acres my grandfather bought!).
5. 17 years in native plant propagation, 4 different nurseries in CA, WA, and ID.
6. 12 to 20 yrs. (a chunk of time) in various education roles. I love sharing my excitement for our natural world!

How is Fire Resistant Landscaping Different?

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1. Strategize where to plant and where not to plant
2. Choose the right plants
3. Break up continuous vegetation
4. Intersperse non-flammable areas in garden
5. Create vertical and/or horizontal space between trees and shrubs and ground cover
6. Conscience maintenance!
7. Plan to irrigate

Acknowledge the First Fire Landscape Experts

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- Native Americans have tended and lived here for 13,000+ years.
- Fire is not a new element in the landscape.
- Before Europeans and later legislature and forestry practices thoroughly interrupted cultural burning, and suppressed lightening strike-ignited fires, CA experienced massive areas of burning every year. Mixed intensity fires contributed to the enormous diversity of native habitats in CA.

Source: https://www.nature.org/en-us/magazine/magazine-articles/indigenous-controlled-burns-california/

Where to Apply Strictest Fire Safety Concepts

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- Work from the structure outward
- Start in the 0-5 ft zone of defensible space (a.k.a Zone Zero)
- Home hardening is critical for increasing likelihood of structure survival in a fire
- Most structures ignite from embers (not flames)
- Defensible space and evacuation routes

Think Ember Resistant

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Home hardening key areas

1. Roof → Metal, tile (with closed ends), asphalt shingle, with metal gutters
2. Vents → 1/16" to 1/8" metal screen
3. Decks → Aluminum is best
4. Windows → double pane, with one tempered
5. Eaves→ soffited (closed) is best
6. Siding → cement fiber shingle, stucco, tongue and groove, or replace lowest 3 to 5 ft

Ember-risky spots in Zone Zero (0’ –5’)

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Where to avoid planting altogether:

- Below windows
- Below Eaves and within 5 ft of structure

Mulch wisely:

- Keep mulch 5 ft away from structures
- Alternate mulch options: gravel/ compost

Fences/ railings/ gates near structure:

- Use metal (or leave gap) adjacent to structure

Outdoor Furniture

- Switch to metal if possible.

So, Let's Focus on Where we *Can* Plant!

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Inspiration, joy, and a dedication to careful ongoing work is what creates beautiful, healthy gardens!

(If you are creating or removing from a place of fear, the results will not be the same or necessarily safer)

1. Strategize *Where* and Where *Not* to plant

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Again, Where *Not* to Plant?

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Within 5 ft of Structure:

- Use rock, pavers, concrete, bare soil, aluminum deck boards etc.

Below Windows:

- Remove vegetation below windows as glass breaks in high heat

Below Eaves:

- New structures are required to have boxed in (soffited eaves)

Near exits:

- Keep evacuations clear!

Keep tree limbs 10 ft from roof

- Often you don't need to remove the tree

https://www.firesafemarin.org/news/entry/uc-marin-master-gardener-fire-smart-landscaping-tip-may

Where to Plant?

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Groundcover and low growing:

- Anywhere beyond 5 ft of structure!
- Many perennial native plants can be mowed and are excellent erosion control

Shrubs:

- Scatter in garden in clusters (create microclimates)

Trees:

- If you already have lots of trees, don't *add* more within 30 ft, but…
  - prioritize KEEPING:
    - ❖ Deciduous broadleaf trees are lower flammability
    - ❖ Oaks = fire resistant (host 100+ native animals)
    - ❖ Large redwoods can be pruned (but don't prune into a toothpick, no more than 30%rule).
    - ❖ Other, healthy, large diameter trees (non-invasive)

An Ecological Mindset to Gardening

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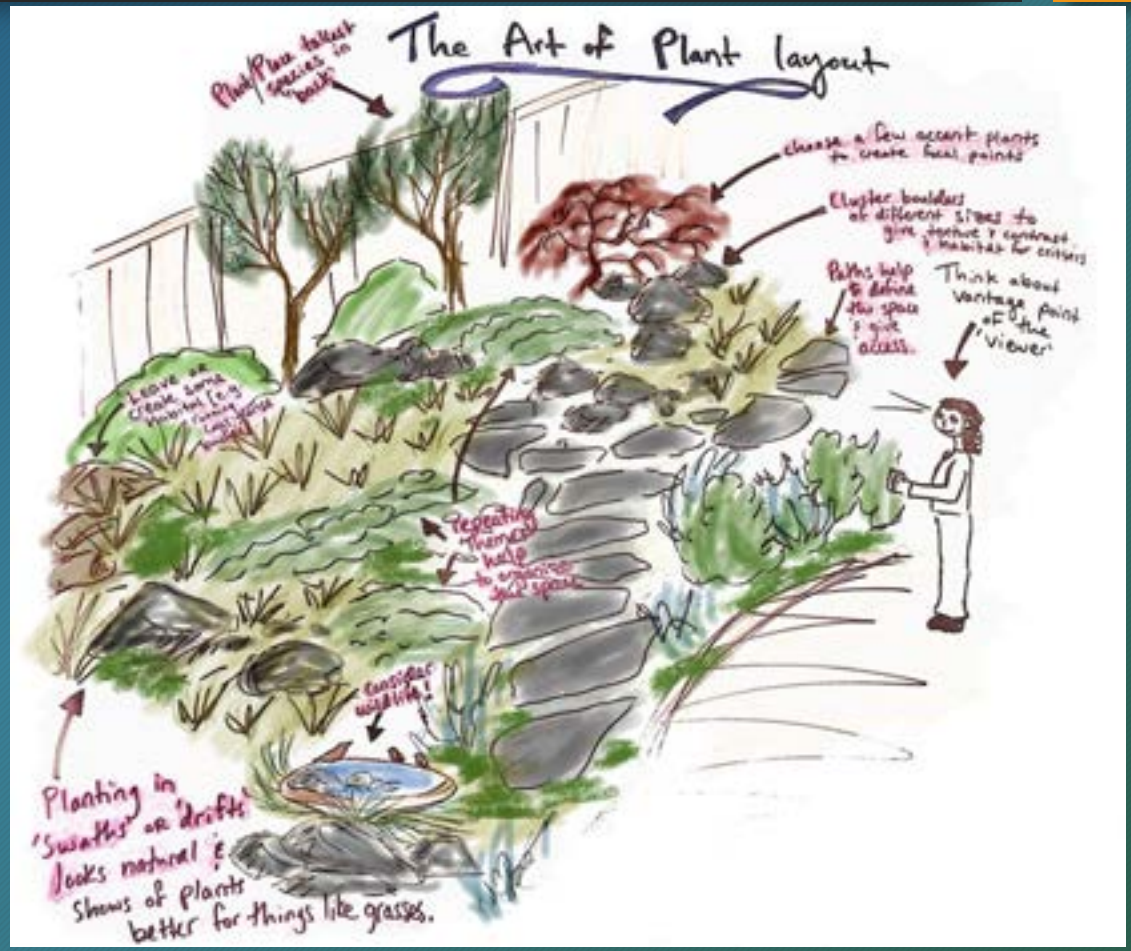
Big Picture Goals within fire-conscious gardening:

- Create islands of refuge
- Interrupted abundance
- Self sustaining populations of microhabitats



2. Choosing Plants – Low? Sun? Drought? Easy?

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CA Fuchsia

Chalk Dudleya

Beach Strawberry

Collinsia

CA Poppy

Yarrow

Blue-eyed Grass

Choosing Plants – Full Shade? Low? Easy?

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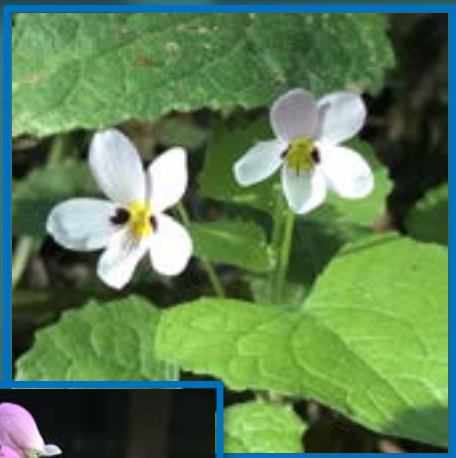
Redwood Sorrel

Wild Ginger

Woodland Strawberry



Western Heart's Ease

Western Columbine

Redwood Violet

Western Bleeding Heart

Choosing Plants – The Especially Virtuous

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Coffee Berry

Pink Flowering Current

Buckeye

Oaks

Maple

Toyon

Choosing Plants – Key Habitat Providers

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Coyote Brush
29 spp.
Butterflies/ moths 55+ spp. pollinators

Willow
224 spp.
Butterflies/ moths

Ceanothus
95 spp.
Butterflies/ moths

Douglas Fir
89 spp.
Butterflies/ moths

Oak
163 spp.
Butterflies/ moths

Also, Avoid/ Remove *These* Plants

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Palms

Acacia

Juniper *and* Cypress

Bamboo

Eucalyptus

Jubata/ Pampas Grass

Qualities of More Flammable Plants

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Messy, lots of dead debris

Prolific, fast growth, high maintenance

Fine, needly, feathery foliage with lots of surface areas

Dry, dense wood (low moisture content)

Volatile oils, waxy leaf coatings, often have highly aromatic smells

Resinous, thick, sticky sap

Avoid/ Remove These Invasives Too!

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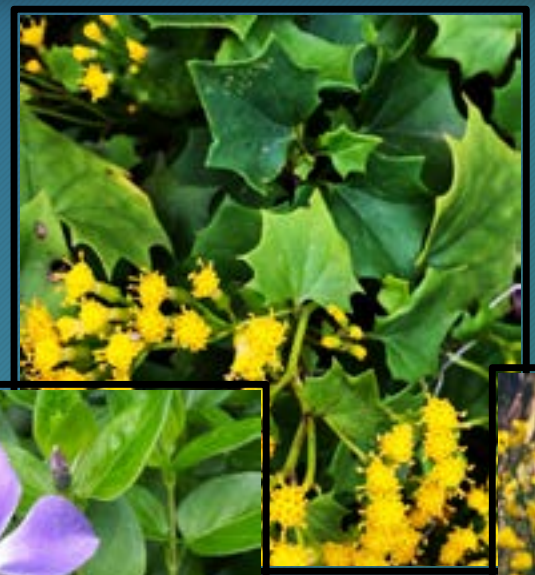
Himalayan/ Armenian Blackberry

Photo: Joseph DiTomaso

Ice Plant



Cape Ivy

Photo: Joseph DiTomaso

English Ivy

Canary Island Saint John's Wort

Periwinkle

Broom

Things to Think About When Choosing Plants

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Different microclimates in your garden have plants with compatible needs:

- Exposure – Sun? Shade? How many hours?
- Soil – Clay? Shale? Sandy? Mulchy? Deep? Shallow?
- Terrain – Flat? Sloped? What facing? Drainage Basin (bowl shaped)?
- Water availability – irrigated? What type of irrigation? Drip? Spray? Hand-water? Frequency? Seasonal flooding?

3. Break up Continuity (Creating Fuel Gaps)

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A varied garden/ landscape ecosystem is more *resistant* to:

- Disease (harder to spread)
- Pests (harder to sustain large populations)
- Fire (keeps fire patchier, moderating intensity, as different fuels burn differently)
- Drought (different plants have different tolerances)

In gardens (like the larger landscape), Increasing mosaic qualities, slows down ignition pathways.

Create Islands of Abundance ☺ (*Not* Uniform Sparsity)

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We want our garden to be full of life!

A Healthy system = thriving and resilient.

Think of your garden like a working house not a pretty dollhouse (it needs all the parts to keep it functioning).

- Mycorrhizae, different root depths and plants that fit each microclimate, diverse microbes, reptiles, birds, bugs, amphibians, stumps, logs, boulders, sun, shade, water, soil.

Breaking Up Continuous Vegetation

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Isolated/ contained abundance is great!

- Driveway below and low clipped grass above
- All these plants can be cut low each year for fresh, (non-woody) growth.
- Intersperse a few shrubs for habitat stability

Include Housing for your Helpers!

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Boulders, rocks, half buried logs, bare soil patches

Spongy, decomposing mulch:

- Sustains mycorrhizae (symbiotic fungi that vastly improve health of many plants)
- Provides shelter for beneficial creatures! Share with your neighbors

Share structures with swallows!

These birds need decomposing dead stumps, decaying/ dead trees for cavity nesting.

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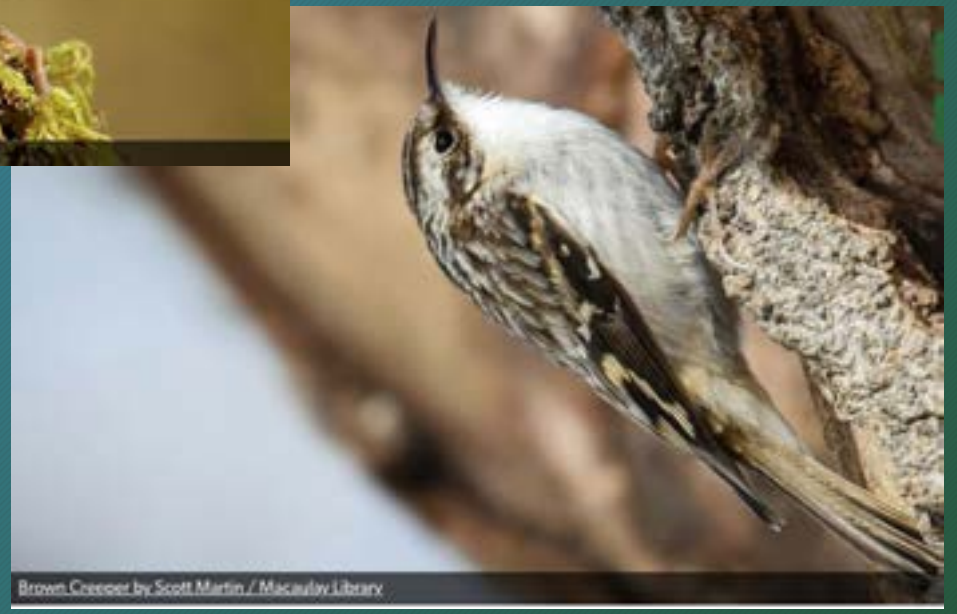

Don't get too tidy in the woodsy outskirts of your yard! These birds cannot make their own cavity nests!

Lizards, Newts, Salamanders, and Friends

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These birds need low, dense cover!

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4. Intersperse Non-flammable Areas

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Paths: Attractive and Useful Fuel Breaks

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Path placement:

Near structure, Around islands, defining zones

Path substrate:

DG, Soil, Pavers, Gravel

Edging:

Metal, rock, concrete, or no edge

Use Metal Gates and Fences Near Structure: Rock walls, Metal gates/ fences, gap = fuel Break

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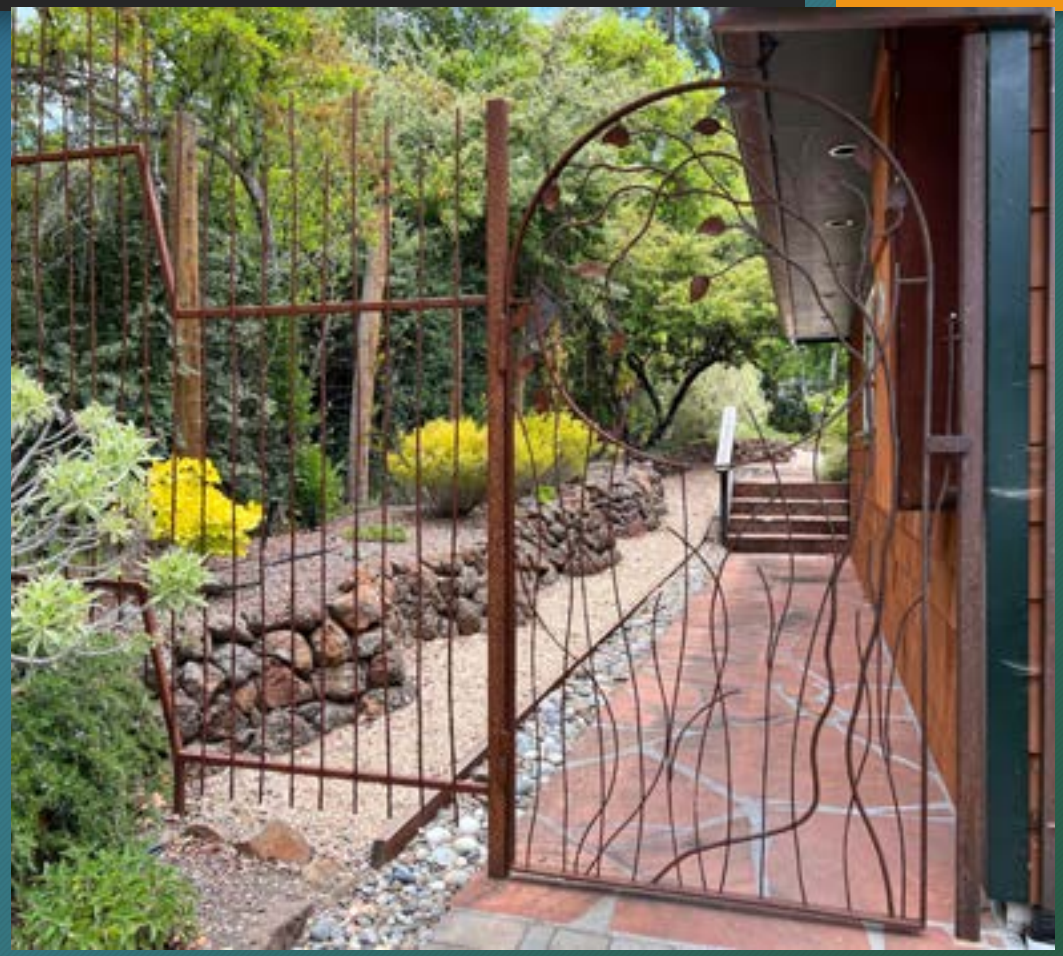
- Replace/remove sections of wood fence with metal
- Switch out wood posts for metal ones or use metal panels
- Accent with wood rather than create structure with wood
- Replace sections of wood fence where vegetation touches
- Raise fence 6” off ground, reducing litter/ember catchment
- Anticipate where leaves and weeds can gather
- Remove parallel fences to prevent gathering debris or creating extra high heat potential



An Attractive Fuel Gap Around Wood Deck

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Notice --

- What is working here?
- Can we improve this?
- Maintenance applied?

More Examples of Attractive Fuel Gaps

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5. Create Vertical and Horizontal Space

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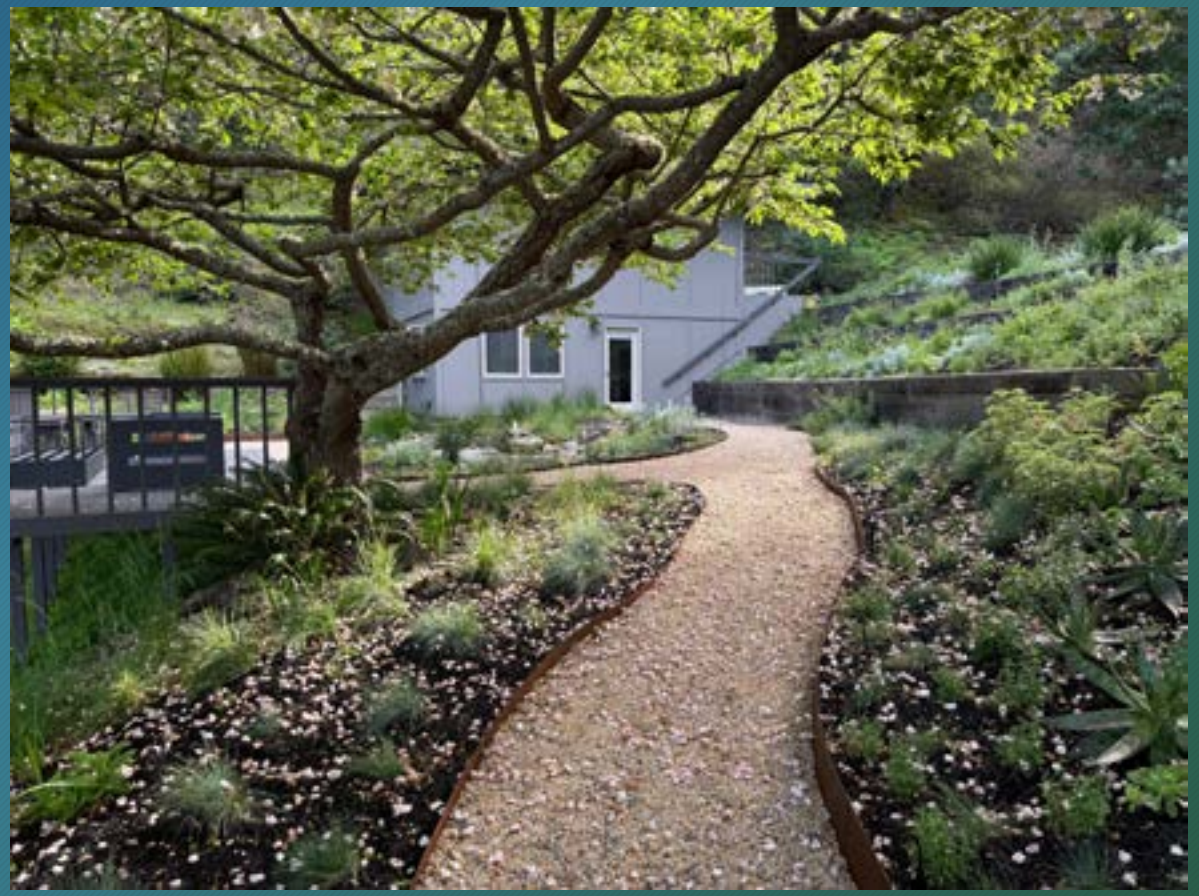
Remove lowest tree limbs:

- Conifers and Pines = 10 ft from soil
- Broadleaf = 6 ft from soil
- Keep ALL branches 10 ft from roof

Trim Shrubs too!



Defensible Spacing -- Vertical

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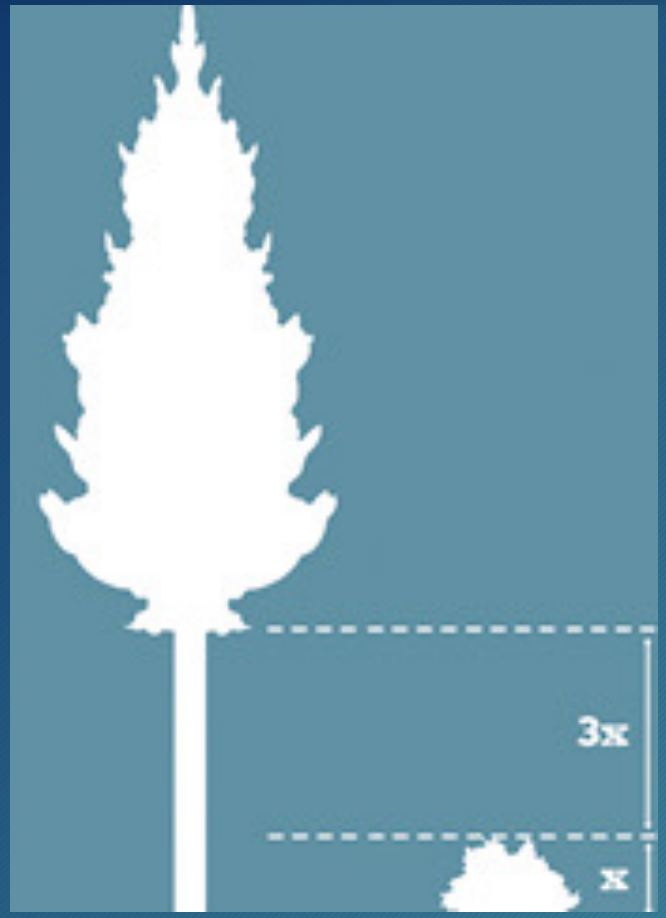

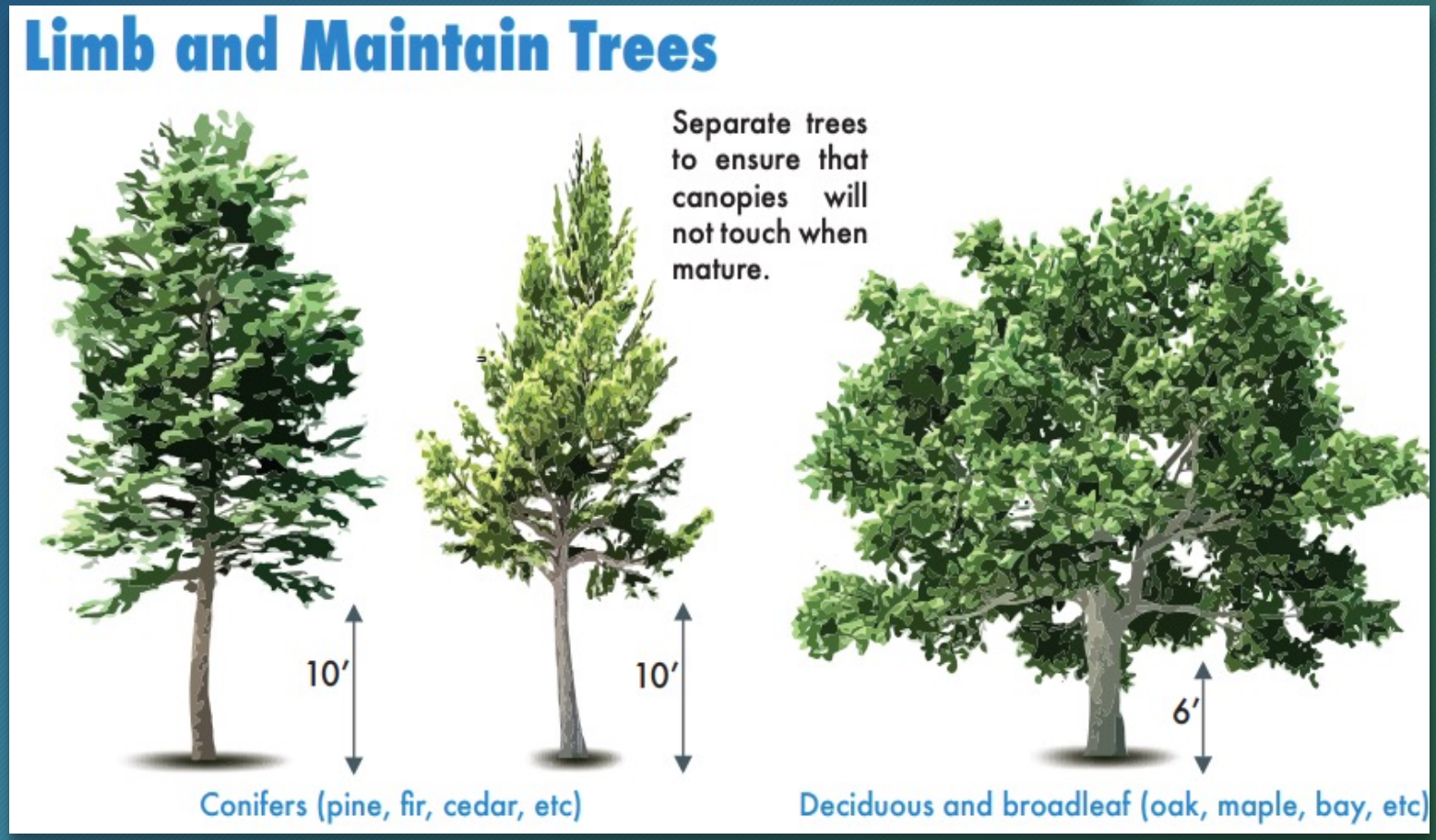

2016 Edition LIVING WITH FIRE IN SAN MATEO COUNTY www.firesafesanmateo.org

Defensible Spacing -- Horizontal

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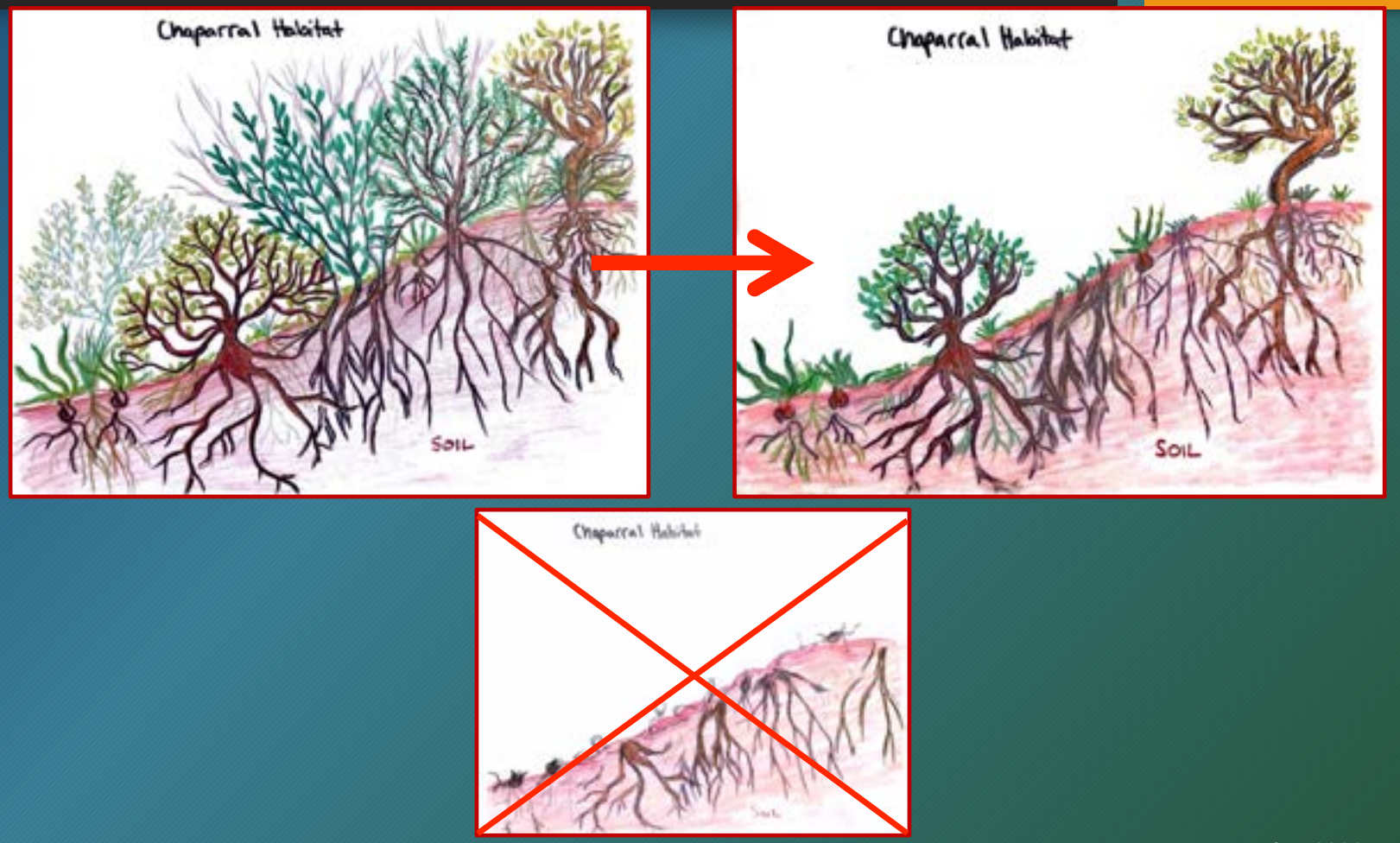
- Meadows: Cut coyote brush and small firs to base. Limb up scattered healthy oaks.
- Chaparral: aim to thin by 50%(by cutting to the ground, NOT removing by roots)
- Redwood/ conifer forests: selectively thin small diameter, crowded saplings
- Oak woodlands: remove bays, newly dead oaks → it's not too late to prevent some Sudden Oak Death!



A Note on Defensible Space Beyond 100 ft

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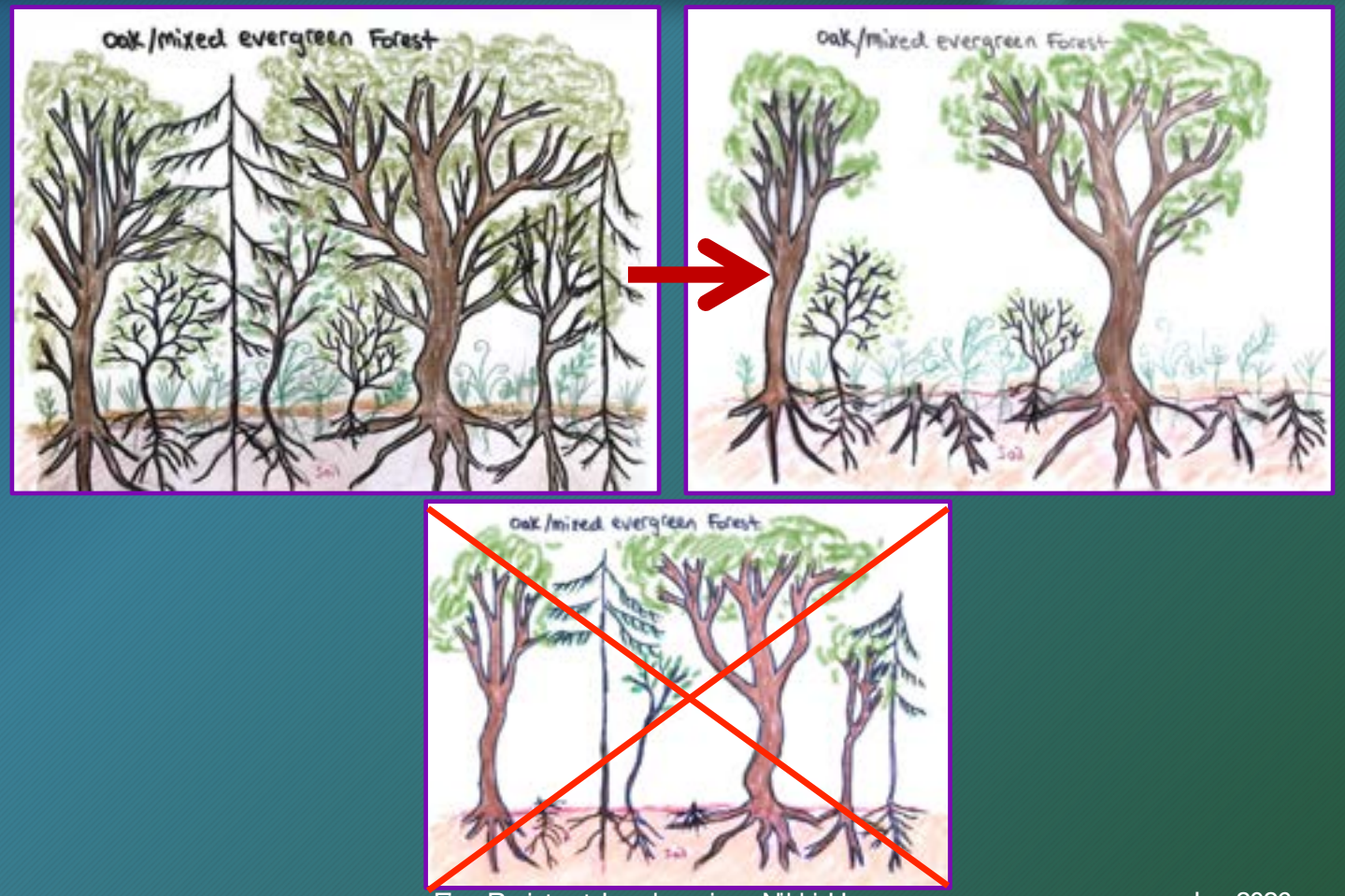
- Don't preemptively remove massive amounts of vegetation in your wider surrounding area.
- In a hot fire, the forest will survive, changed but resilient!
- If you remove many parts of the system, you likely change it for the worse:
  - Increased invasive (more flammable plants)
  - Increased drought (disturbed soil integrity, increased sunlight, wind, evaporation)
  - Faster spread of invasives
  - Decreased array of native animals, your insects, bugs, reptiles, birds, mammals, which are essential



6. Maintenance – like cleaning your Kitchen – never ends!

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Rake (some) leaves:

- From under decks
- From 5’ of structure
- From paths/ hardscape
- Clean up along fences

Maintenance – Timing

Prune in fall or late winter:

- Remove dead wood
- Cut back salvias by 70% (see photos)
- Cut coyote brush, sage brush to 3”
- Cut to ground creeping perennials to 3”

Maintenance – Timing

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Add composted mulch/ soil in fall:

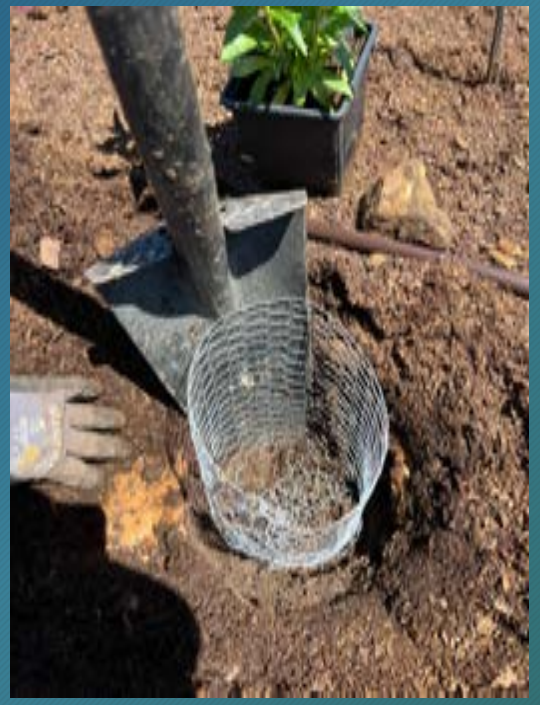
- Add layer in garden beds (leave some space near tree trunks)
- Plant (mostly) in late fall to early spring

Weed invasives BEFORE they flower (LESS maintenance if densely planted islands):

- Thistles (star, Italian, bull, milk)
- Grasses (Ripgut, foxtails, orchard, medusahead, oat, etc.)
- Broom (French, Scotch, Portuguese)

Mow (Late fall and early summer):

- Native grass + wildflowers → aim for after seed set



Weed-suppression – Layer Composted Mulch

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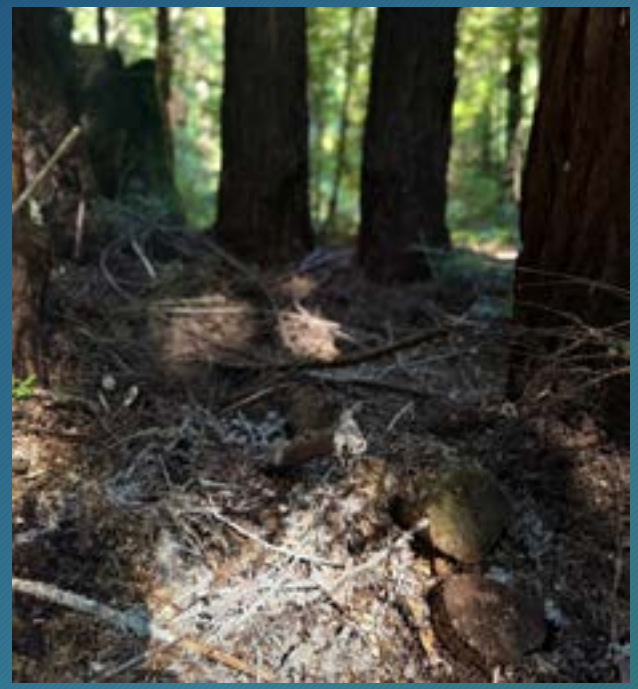
- Composted wood mulch is least flammable of wood-chip options.
- Thoroughly water it in at application to flatten!
- More compact mulch =less air pockets = less ignitable.



Mycorrhizae love woodchips!

More mycorrhizae = water efficient plants

Weed-suppression -- Sheet Mulching:

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May 2024

June 2025

7. Irrigation: (dry plants = faster to burn)

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Some Options

- MP rotators
- Pop-up sprayers
- Hand water with shower spray

https://www.thedailygardener.com/best-watering-wand

Include Overhead Irrigation

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Most native plants prefer *overhead* irrigation compared to drip:

- ✓ Promotes evenly moist soil
- ✓ Encourages Mycorrhizal networks
  - Most native plants depend on a connective network between their roots and beneficial fungi in the soil
- ✓ Keeps foliage clean:
  - Dusty leaves don't breathe as well
  - Dusty dry leaves are more flammable
- ✓ Water in early morning or early evening
  - NOT night (but in very low humidity don't worry about night)

Which Plants Like Drip Irrigation Best?

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- Wetland plants
- Riparian (water habitat) plants
- Plants that don't mind slow drainage (e.g. clay/adobe)

https://www.watershednursery.com/nursery/plant-finder/pluchea-odorata/

6. Irrigation – Check out this video! (later)

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Tree of Life Nursery's AWESOME post on how-to water (link to a recorded talk):
https://californianativeplants.com/blog/watering-native-plants/

The irrigation taper (approx. guidelines)

- First day – REALLY SOAK it!
- First month – 2X/ week
- First year 1X/ week in hot, every other week in cool weather
- Second year 1X every other week in hot weather
- Third year 1X per month in hot weather

Tasteful Pruning

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- Aesthetics
- Structural integrity
- Seasonal timing
- Phenology
- Pathogen prevention

Resources to peruse later…

Home Hardening:

https://wildfireprepared.org/homeownerguide/

Defensible Space:

https://www.fire.ca.gov/dspace

Fire Safe Landscaping in CA:

https://www.laspilitas.com/fire.htm

Bird ID:

https://www.allaboutbirds.org/guide/browse/filter

That's All For Now!

Thank you!

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