



SMALL PROPERTIES

- Especially flammable b/c:
 - Lack room for a greenbelt
 - Higher housing density – more flammable materials
 - Older home pose greater fire risk –mature veg, older roof materials
- Use zone 1 & 2 plants – most fire retardant
- Gates between fences allows for ease of access – gridlock common in fires
- Vegetation along road shoulders should be ground covers
- Overhanging branches should be pruned ≥ 16 ft. above road



FENCES

- Contribute enormous amounts of fuel to a home site
- Cheap & ignitable woods are common building material
- Vegetation typically planted on both sides of fence
- Four Main Functions:
 1. Visual Barrier: most flammable, only use wood where screening view
 2. Sound Barrier: most expensive, best barrier materials are non-flammable (i.e. concrete, bricks, stucco, etc.)
 3. Barrier to Entry: can be least flammable & cheapest (i.e. chain link and strong wire-mesh @ 4 x 4 posts)
 4. Aesthetic Divisions: typically ornamental, rocks, bricks, and large lumber are ideal

A landscape photograph showing a field of purple and yellow flowers in the foreground and middle ground. In the background, there are several blackened, charred tree trunks and branches, suggesting a fire. The sky is a clear, bright blue. The text "PLANTS & PREVENTION" is overlaid in the center in a white, sans-serif font.

PLANTS & PREVENTION

Juan Van Buren
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AtikaNaturePhotography.com

3 GAUGES OF FLAMMABILITY

1. IGNITABILITY

- The seconds it takes to burst into flames when exposed to 650°F – 1100°F
- Leaf thickness & moisture content directly linked to ignitability
- Ex: Succulents are harder to ignite than grasses

2. SUSTAINABILITY

- Ability to keep a fire going
- Plant fuel determines sustainability
- Ex: Grass (*not sustainable*) vs. Chaparral (*sustains fire*)

3. COMBUSTIBILITY

- The amount of heat a plant is capable of producing when on fire
- Determined by tissue density and chemical composition
- Ex: Oak is harder to ignite than pine



PLANT CHARACTERISTICS

- Deciduous plants < Evergreens
- Broadleaf plants < Needle-like leaves
- Moist/pliable leaves < stiff/leathery leaves
- Thick leaves < thin leaves
- Low litter producing plants < High litter producing plants
- Watery sap < thick/gummy/resinous sap
- No fragrance < fragrance
- Silver leaves (high mineral & ash content) < other leaves
 - Not true for native fragrant sages
- Leaves w/o hair < leaves with hair

ANY PLANT CAN CATCH FIRE !



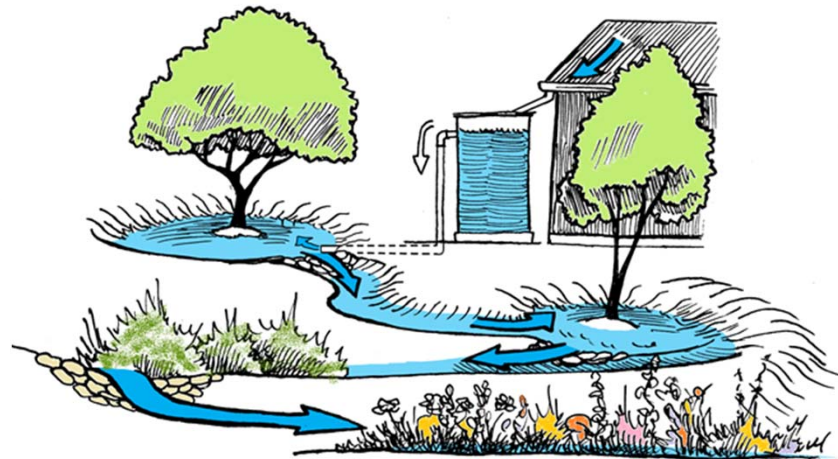
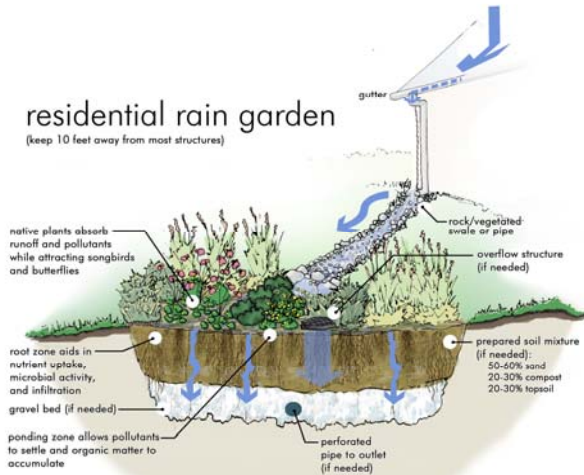


RAINWATER HARVESTING

- Catchment tanks
- Rain gardens
- Swales
- Depressions
- Rain catchment drain

residential rain garden

(keep 10 feet away from most structures)



1" rain on 1,000 ft² roof = 623 gal. of water



BENEFITS OF NATIVE PLANTS

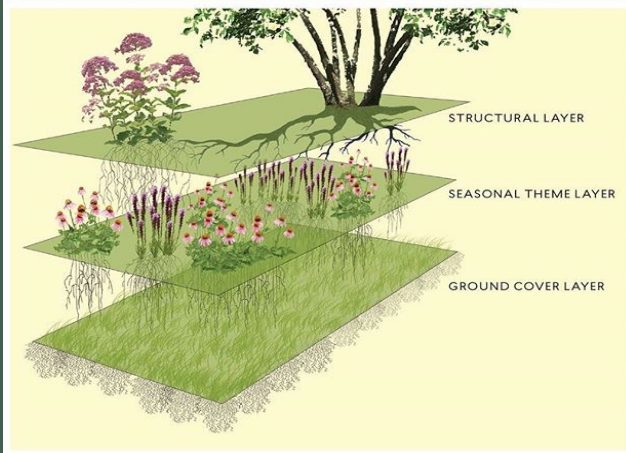
- Adapted to fire ecology
- Drought tolerant – saves water
- Supports native animal species
- Less fertilizer & maintenance
- Beauty

Why I Landscape with Natives...

- Maintains food sources and habitat for native animals (invertebrates included) within suburban environments
- Requires less maintenance, feeding, and water requirements than most exotics
- Adapted to local climate – more likely to adapt to future changes
- Thousands of varieties to choose from
- Responsibility to the environment
- Opportunity expand shrinking habitats



LAYERS OF A DESIGNED PLANT COMMUNITY

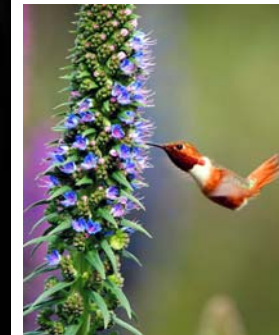


NATIVE PLANT DESIGN

- Mimic scenes found in nature
 - Repetition
 - Grouping
 - Mass planting
- Simplicity
- Texture

NATIVE PLANTS & POLLINATORS

- Intensive monocropping, urban sprawl, pollution, etc. have destroyed and fragmented native pollinator habitats
 - Remaining habitats often degraded by invasive/non-native plants
- At least 200 species of pollinators are considered threatened or extinct by the World Conservation Union
- Pollinators:
 - *Bees*: ~4,000 species, mostly solitary ground nesting species
 - *Butterflies*: 700+ native species in NA
 - *Moths*: nocturnal – rely on night-blooming flowers
 - *Beetles & Flies*: mimic bees to evade predation
 - *Bats*: nocturnal pollinator
 - *Hummingbirds*: forage and shelter in shrubs, trees, and vines





Bloom Period	Common Name	Scientific Name	Life Cycle*	Flower Color	Max. Height†	Water Needs	Notes
<p style="text-align: right;"><i>This list of pollinator plants for California was produced by the Xerces® Society. For more information about pollinator conservation, please visit www.xerces.org.</i></p> <p style="text-align: right;"><small>XERCES SOCIETY for Invertebrate Conservation</small></p>							
	Forbs				(feet)	L: low; M: medium; H: high	*Life Cycle abbreviations: A: annual; P: perennial; B: biennial. †Max. Height is an average, individual plants may vary.
Early	1 Baby blue eyes	<i>Nemophila menziesii</i>	A	blue	0.25	L	Stunning sky blue flowers attract native bees, including mason bees (<i>Osmia</i> spp.); tolerates moderate shade and moisture
	2 Common tidytips	<i>Layia platyglossa</i>	A	yellow	0.25	L	Sunny yellow and white flowers are very attractive to butterflies and native bees; tolerates clay soils
	3 Lacy phacelia	<i>Phacelia tanacetifolia</i>	A	purple	3	L	Easy to establish, with prolific, showy blooms; tolerates clay soils
Early-Mid	4 California poppy	<i>Eschscholzia californica</i>	A, P	orange	0.5	L	Easy to establish and long blooming; attracts a diversity of bees, bumble bees in particular
	5 Elegant clarkia	<i>Clarkia unguiculata</i>	A	pink	0.5	L	Strikingly unique flowers attract bees and butterflies; larval host for Clark's sphinx moth
	6 Globe gilia	<i>Gilia capitata</i>	A, P	blue	1	M	Globe-shaped, periwinkle-blue flower clusters attract a diversity of bees and butterflies
Mid	7 California phacelia	<i>Phacelia californica</i>	P	purple	1	L	Tightly coiled flower heads are very attractive to bumble bees and other native bees; tolerates clay soils
	8 Cleveland sage	<i>Salvia clevelandii</i>	P	purple	3	L	Showy flowers attract bees, butterflies, and hummingbirds; extremely fragrant foliage; requires good drainage
	9 Foothill penstemon	<i>Penstemon heterophyllus</i>	P	blue	3	L	Iridescent violet flowers attract bees, butterflies, and hummingbirds; requires good drainage; heat and drought tolerant
	10 Narrowleaf milkweed	<i>Asclepias fascicularis</i>	P	pink/ white	1.5	M	Monarch butterfly host plant; high-quality nectar source for many bees; easier to establish from transplants than from seed
	11 Summer lupine	<i>Lupinus formosus</i>	P	purple	1.5	L	This and other lupines are highly attractive to bumble bees and visited by many other native bees
Mid-Late	12 Common sunflower	<i>Helianthus annuus</i>	A	yellow	5	M	Sunflowers are a favorite of many bee species; easy to establish and tolerant of clay soils
	13 Gumplant	<i>Grindelia camporum</i>	P	yellow	4	L	Long-lasting flowers; attracts small, native bees; tolerates clay soils and wet or dry conditions
Late	14 California aster	<i>Symphyotrichum chilense</i>	P	purple	5	L	One of the latest fall blooming plants; important for pre-hibernation bumble bee queens; tolerates clay soils
	15 California fuchsia	<i>Epilobium canum</i>	P	orange/ red	3	L	Abundant scarlet-colored flowers; critical late-season nectar source for hummingbirds and bees
	16 California goldenrod	<i>Solidago velutina</i> ssp. <i>californica</i>	P	yellow	3	M	Important late-season forage for bees, butterflies, beneficial solitary wasps, pollen-eating soldier beetles, and more
	Shrubs and Trees						
Early	21 California lilac	<i>Ceanothus 'Concha'</i>	P	purple	4	L	Attracts bees and butterflies with a profusion of bright violet-blue flowers; tolerates clay soils
	22 McMinn manzanita	<i>Arctostaphylos 'McMinn'</i>	P	white	5	L	Clusters of small, bell-shaped flowers provide early season forage for bumble bees and other spring bees; tolerates clay soils
	23 Oregon grape	<i>Berberis aquifolium</i>	P	yellow	5	L	Attracts honey bees and native bees, including mason bees (<i>Osmia</i> spp.); tolerates shade and wet or dry conditions
	Redbud	<i>Cercis occidentalis</i>	P	pink/red	15	M	Rose-colored blooms clustered on bare branches; tolerates some shade and moisture; can be pruned to a shrub or small tree
Early-Mid	California buckthorn	<i>Rhamnus californica</i>	P	white	5	L	Attractive, evergreen shrub that attracts small, native bees; its berries are a favorite of birds; tolerates some shade
	California flannelbush	<i>Fremontodendron californicum</i>	P	yellow	15	L	Prolific bloomer with large, bell-shaped yellow flowers; does not need summer water
Mid	Silver bush lupine	<i>Lupinus albifrons</i>	P	purple	3	L	Showy, deep purple flowers with contrasting silver foliage; attracts numerous bee species; requires good drainage
	24 California buckwheat	<i>Eriogonum fasciculatum</i>	P	white	2.5	L	Favored nectar source of many blue and hairstreak butterflies, also very attractive to native bees; drought tolerant



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