



CITRUS
HEIGHTS
WATER
DISTRICT

Purposeful Planning for Your Landscape

- WaterSmart Classes posted on our YouTube
- Programs
 - Water Wise house calls for a free smart irrigation controller & water audit
- Rebates
 - Ultra-Low Flush Toilet
 - Pressure Reducing Valve
 - High-Efficiency Clothes Washer

For more information, contact us at

Waterefficiency@chwd.org

(916) 725-6873

Or

chwd.org/rebates



Purposeful Planning for Your Landscape



Cheryl Buckwalter
Landscape Liaisons



CLIA, QWEL,
ReScape Firescaping
Qualified, RFL Green
Gardener
Landscape Consultant,
Designer, Educator



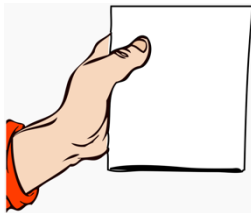


Purposeful Planning Today's Topics

- Create a plan that guides your landscaping
- Fundamentals of water-wise approach
- Strategies for building resilient landscapes

Priorities

- Soil Health
- RP, RP, RP
- Plant Water Needs
- Hold Onto Your Water
- Efficient Irrigation



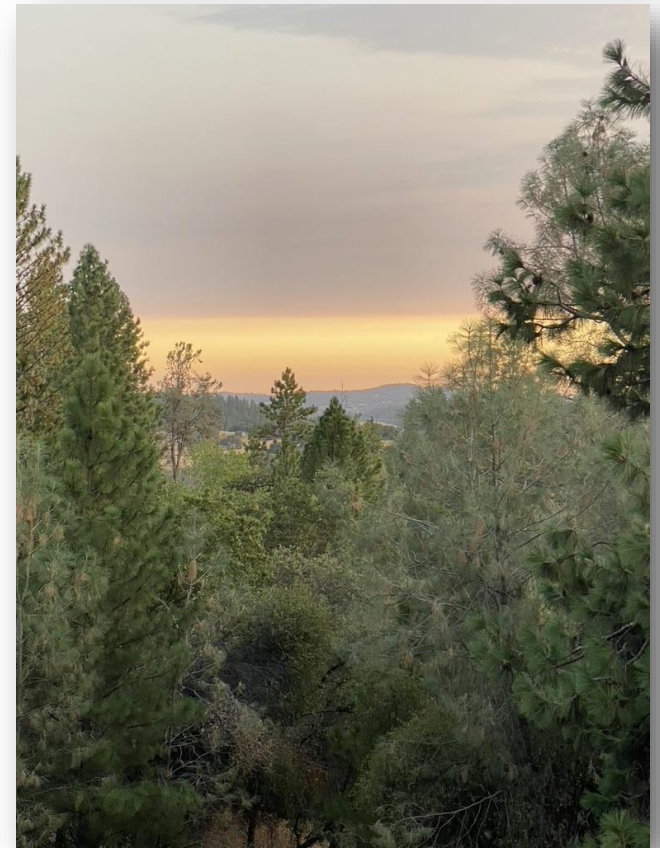
**Resources
will be provided**



Today's Garden Reality Balancing Act

These are tough times...

- For gardens & creatures
- It's not a matter of *IF* but *WHEN*
 - Drought
 - Water shortages & storm events
 - Fires
 - CA's climate is variable
- Let's create resilient, vibrant, easy-care landscapes





Fundamentals of the Water-Wise Approach

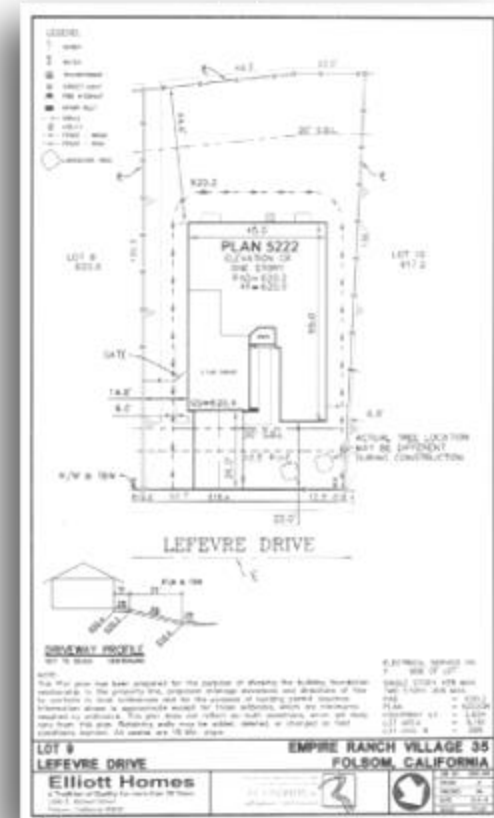
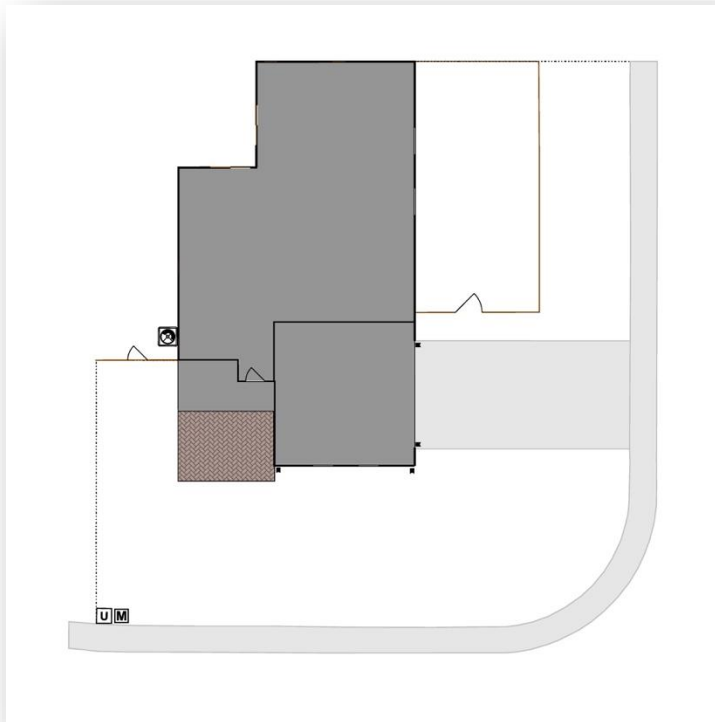
- In harmony with nature
- Functional
- Resource Efficient
- Cost Effective
- Curb Appeal





Create a Plan Start with Basic Layout

A Layering Process



Tip: Use Google Earth to obtain property lines
& footprint of home



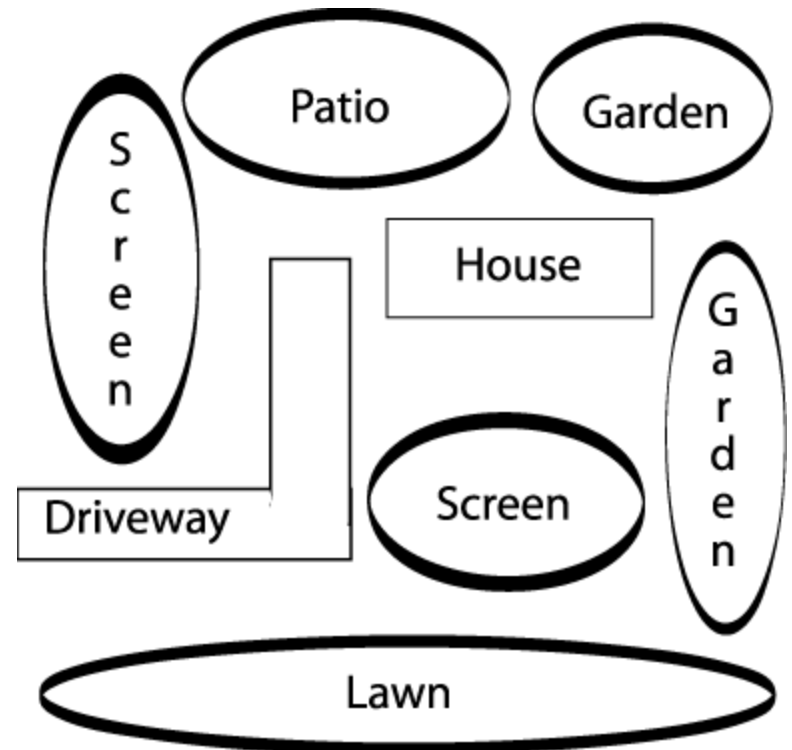
Plan with Purpose Function, Use, & Needs

“Begin with the end in mind...”

-- Stephen R. Covey, “The Seven Habits of Highly Effective People”

Ask:

- Goals, budget
- Life stages, lifestyle, forever home
- New or updating
- Install & care -- D.I.Y. or hire
- Shade, screening, privacy, views
- Activities, gardening
- Shade, noise reduction





Purposeful Spaces





Top Priority - Healthy Soil

How to create & nurture soil?
Compost & Worm Castings!

- Provide nutrients to support soil organisms that nurture your plants
- Increase air & water movement
- Spread 1" of compost under & slightly beyond plant dripline
- Moisten & cover with mulch
- Over time, soil becomes like a nutrient-rich sponge



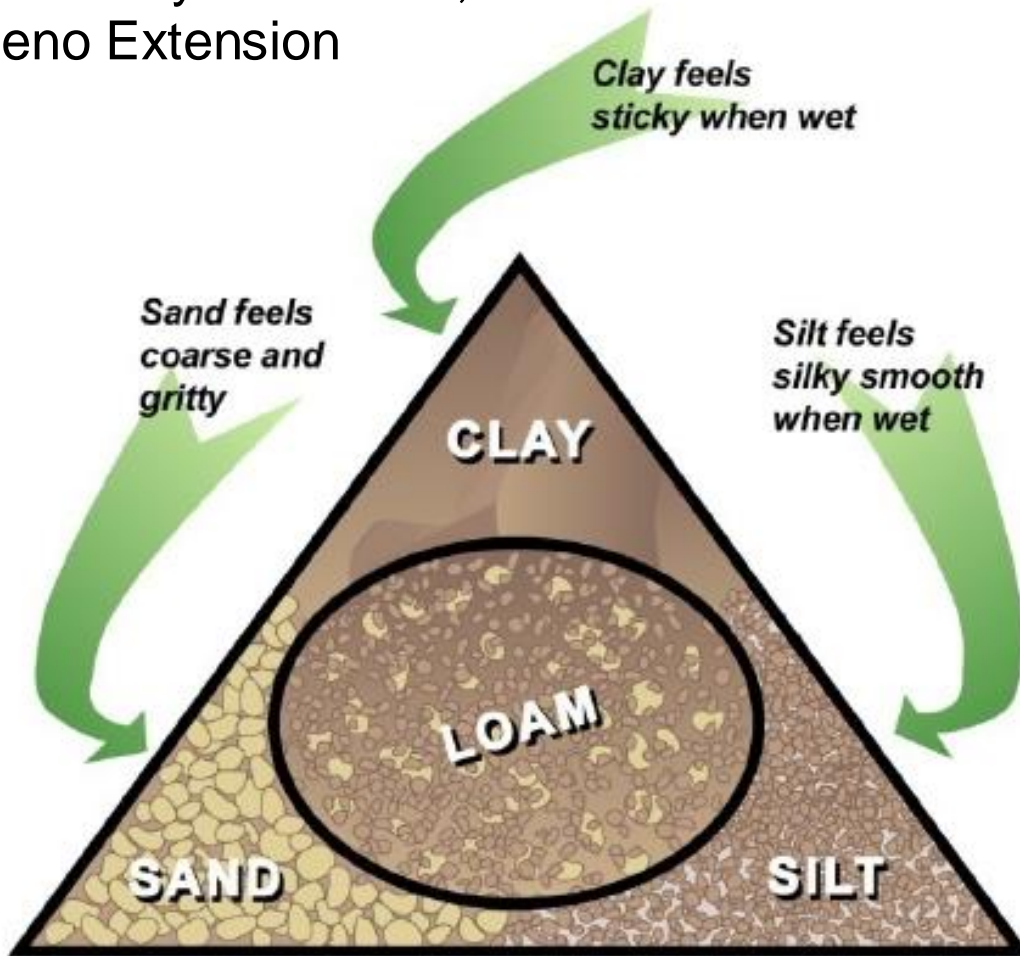


Soil Types (Texture)

University of Nevada,
Reno Extension



Sand Silt Clay



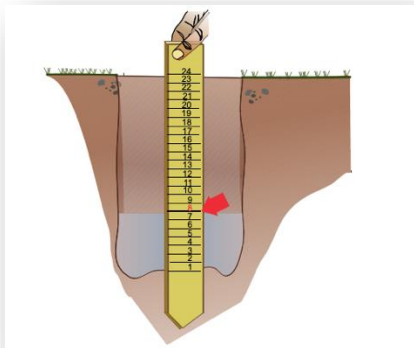


Soil Type



How to determine yours:

- Dig 12" square hole: fill w/ water & let fully drain
 - Refill & if level drops 1" to 2" per hour = good drainage
- Soil analysis by lab - ask for organic recommendations
- Soil probe
- Jar test
- Feel

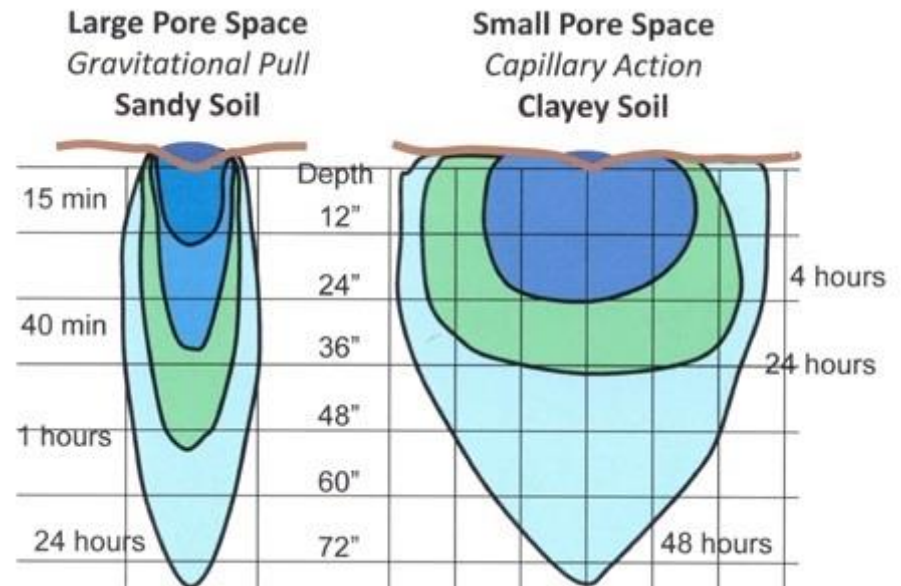




Why Soil Texture Matters



- Water moves into & through soils differently depending on soil type
- Critical for determining when & how to irrigate effectively & efficiency
- Embrace clay soil types





What NOT To Do To Soil

Compaction at new housing
development

DO NOT

- Cultivate or till (perhaps exception in this situation?)
- Remove organic matter (why do they call them leaves)
- Apply salt-based synthetic fertilizers & pesticides

WHY?

- Kills or damages beneficial soil organisms & biological network
- Compacts soil, reducing movement of air & water

Purposeful Planning Hold Onto Your Water

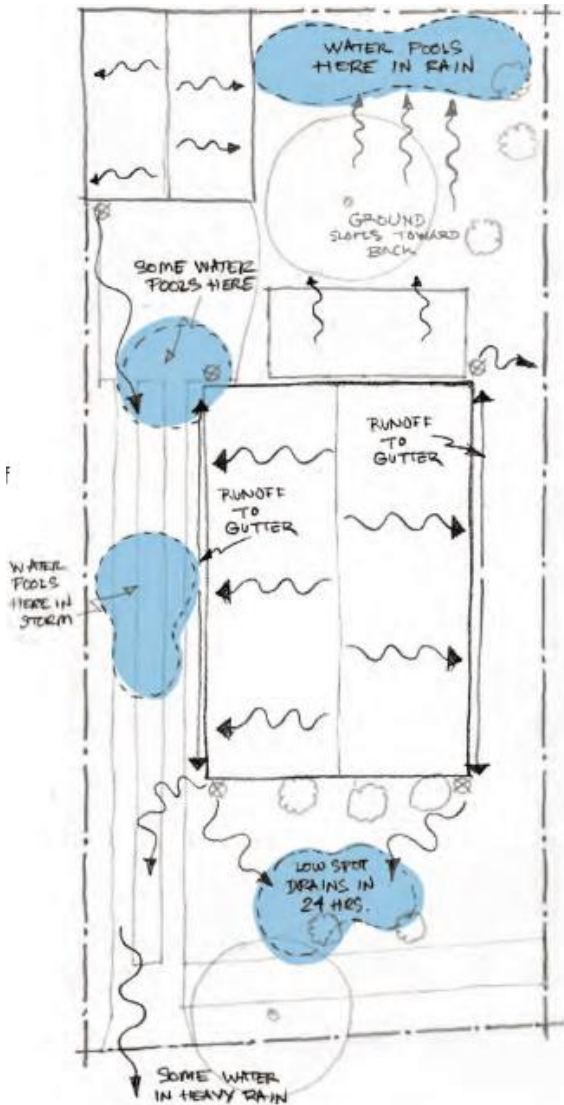
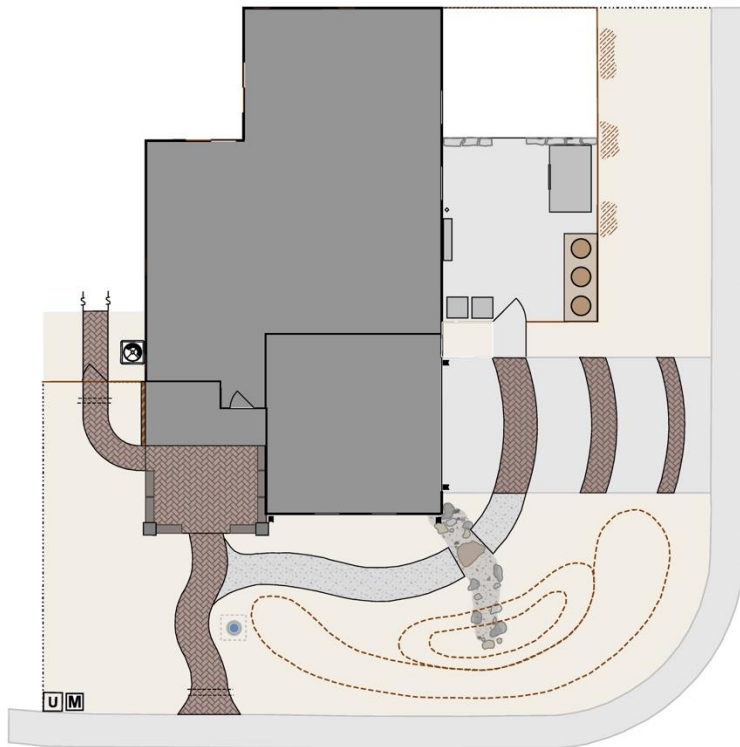


Diagram courtesy of
MWDOC, The Drought
Tolerant Garden: Los Angeles
County Handbook, 2012

- How & where does rain move onto & across your property
- Where does it stay, where does it leave
- Identify potential areas for shaping the soil, creating rain gardens, etc.
- Goal: Keep water on property & out of stormdrain systems



Shape Soil, Keep Water on Property, & Hardscape



- Hardscape = Non-water-consuming materials
- Include sleeves for future expansion, repairs
- Consider proximity to existing trees/plants being kept
- Use locally sourced materials



Capture That Rain

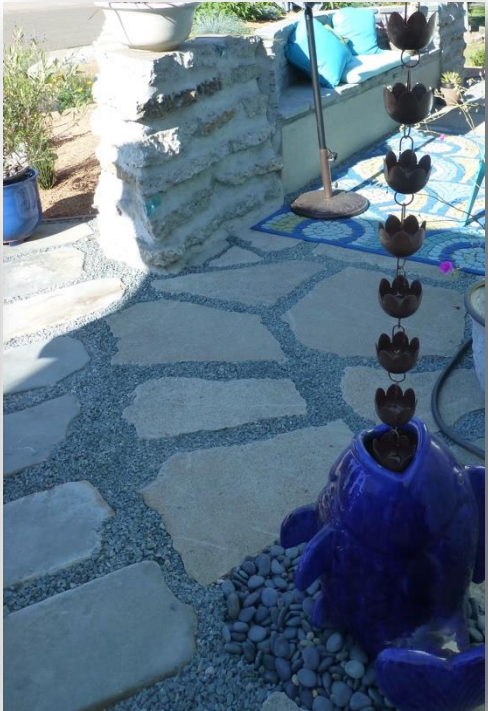


- **Slow it**
- Spread it
- Sink it
- Store it





Slow it Direct Rainwater





Slow It Terraces





Capture That Rain for Your Garden

- Slow it
- **Spread it**
- Sink it
- Store it



Spread It Berm n' Basin Project



Designer & Contractor
Dave Roberts





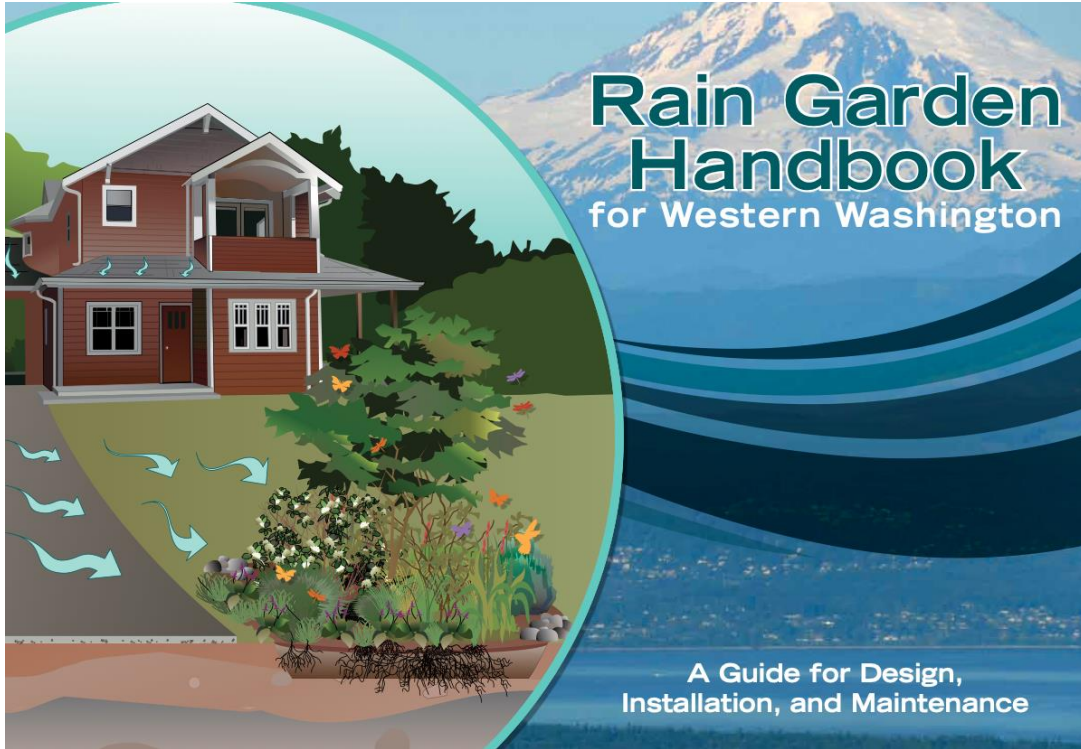
Spread It Creekbeds





Capture That Rain for Your Garden

- Slow it
- Spread it
- **Sink it**
- Store it



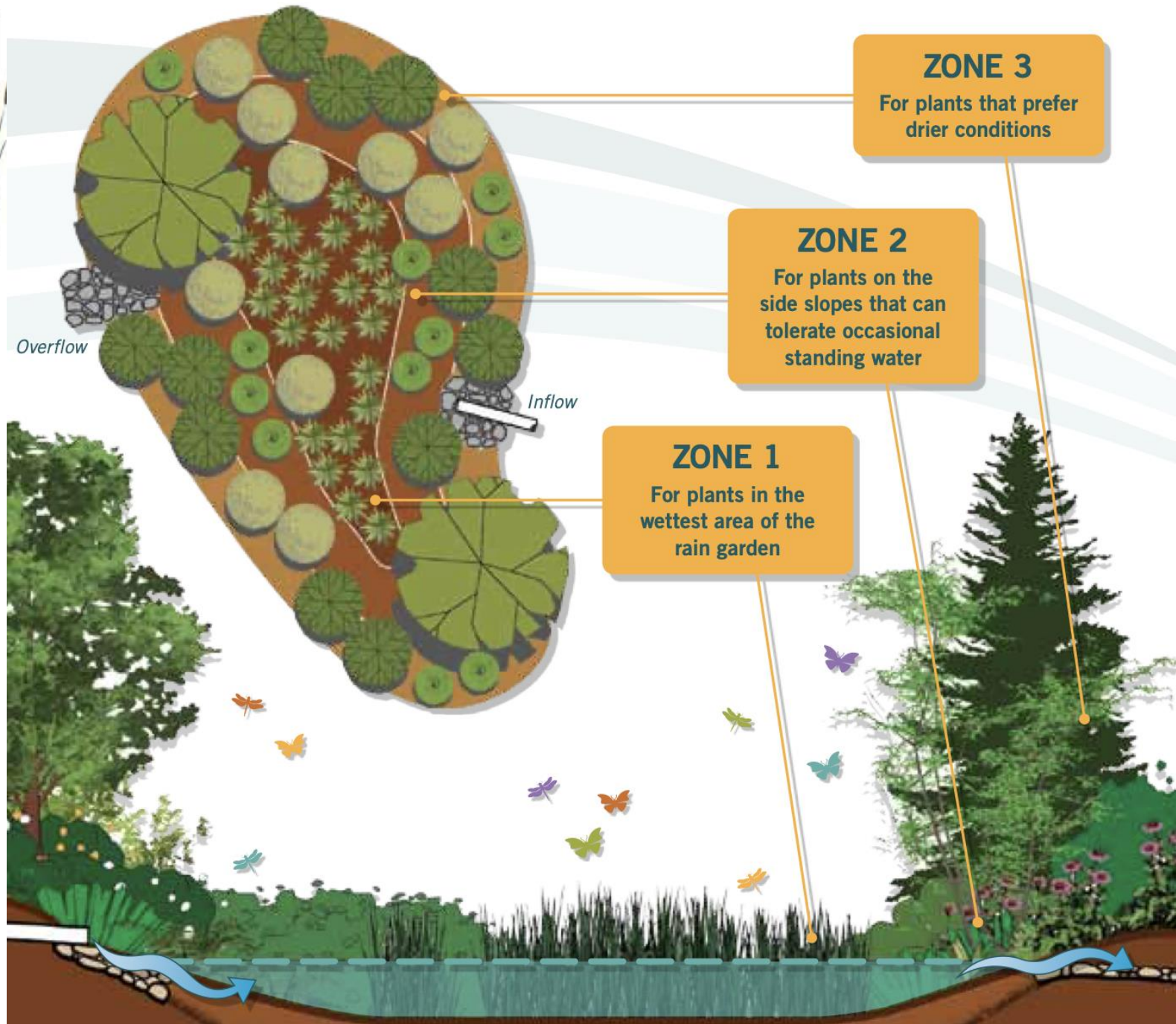
Rain Gardens

Excellent resource
Study & apply to our
climate, conditions, &
your site



<https://fortress.wa.gov/ecy/publications/publications/1310027.pdf>

Funding for this project was provided by the Washington State Department of Ecology through the Municipal Stormwater Grants of Regional or Statewide Significance program, Grant No. GG12015. Curtis Hinman, Washington State University Extension, served as the principal author. Kitsap County managed the project.



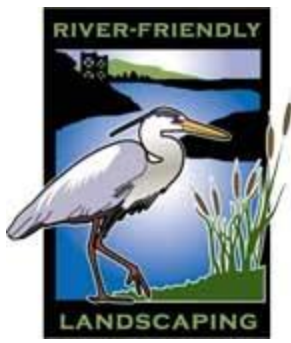


Sink It Rain Garden in Action



1" of rain from a 1,000 sq. ft. roof
yields 623 gallons of fresh water
Source: U.S. Geological Survey

Design by Soleil Tranquilli
Tranquill Gardens

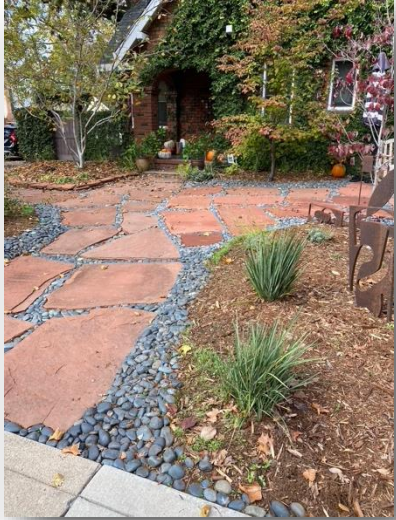


Sink It

Increase Permeable Areas



Materials & techniques
that allow
water to soak
into the soil





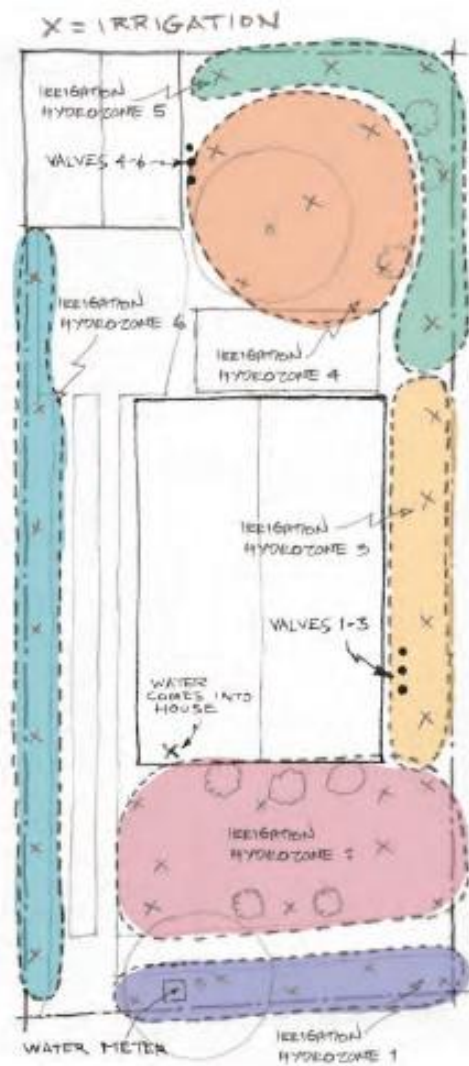
Capture That Rain for Your Garden

- Slow it
- Spread it
- Sink it
- **Store it**

Rain Barrels



Photo courtesy San Francisco Water, Power, Sewer



Efficient Irrigation

Assess What you Have

- Water meter & where it comes from street (main line) onto your property
- Location of controller & valves
- Sketch location of sprinkler heads & mark with "X"s
- Location of valves & mark with "O"s
- Age of system – Consider abandoning



Efficient Irrigation



“Drip the plants, spray the lawn.”

Lori Palmquist, CID, CIC, CLIA, CLWM

<https://puddle-stompers.com/>

Highly efficient
rotary-type
nozzles

Cycle & Soak

Buffer area for
overspray





Drip Irrigation Point Source & Line Source



Point for sparse planting

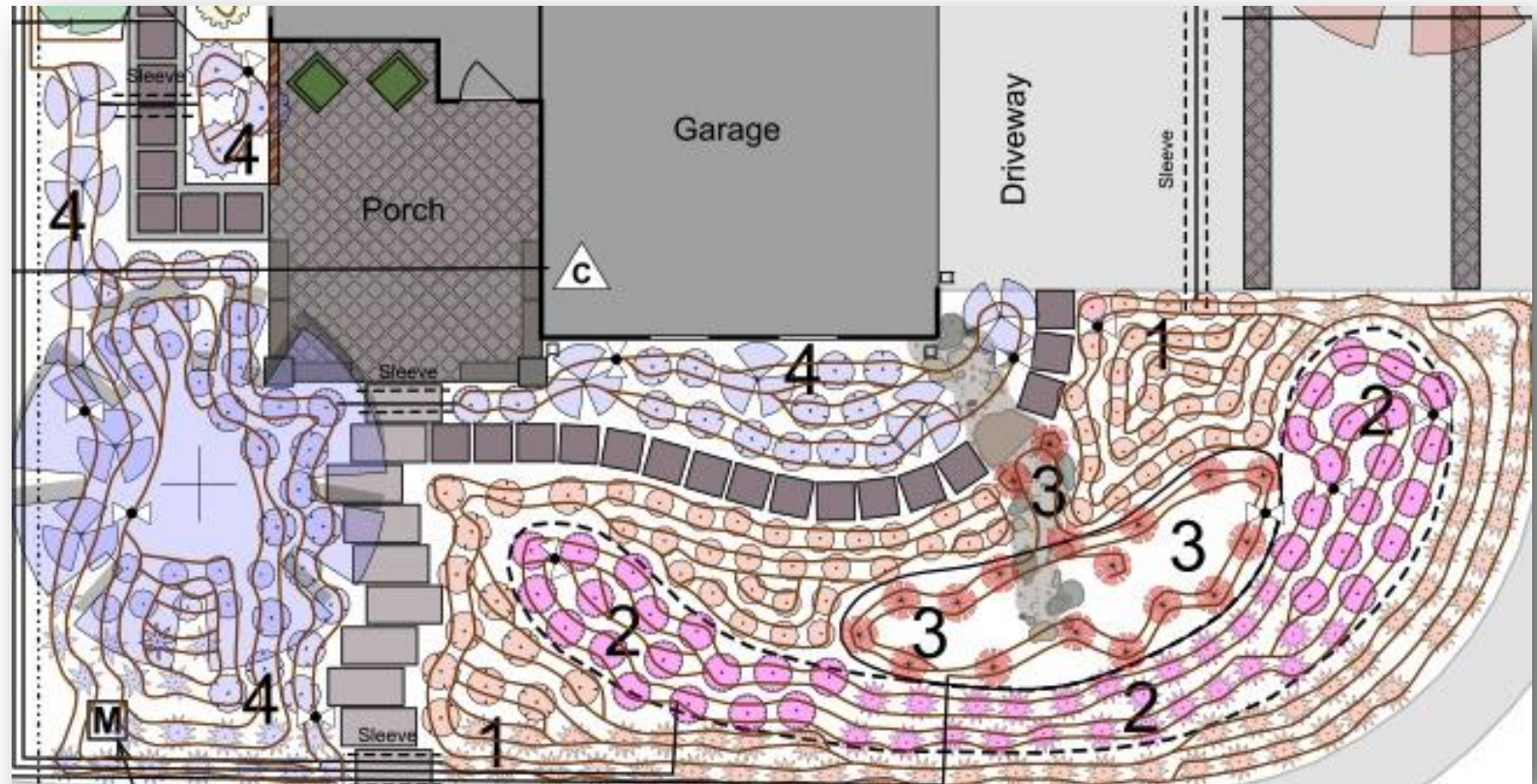


Line for dense planting





Irrigation Plan



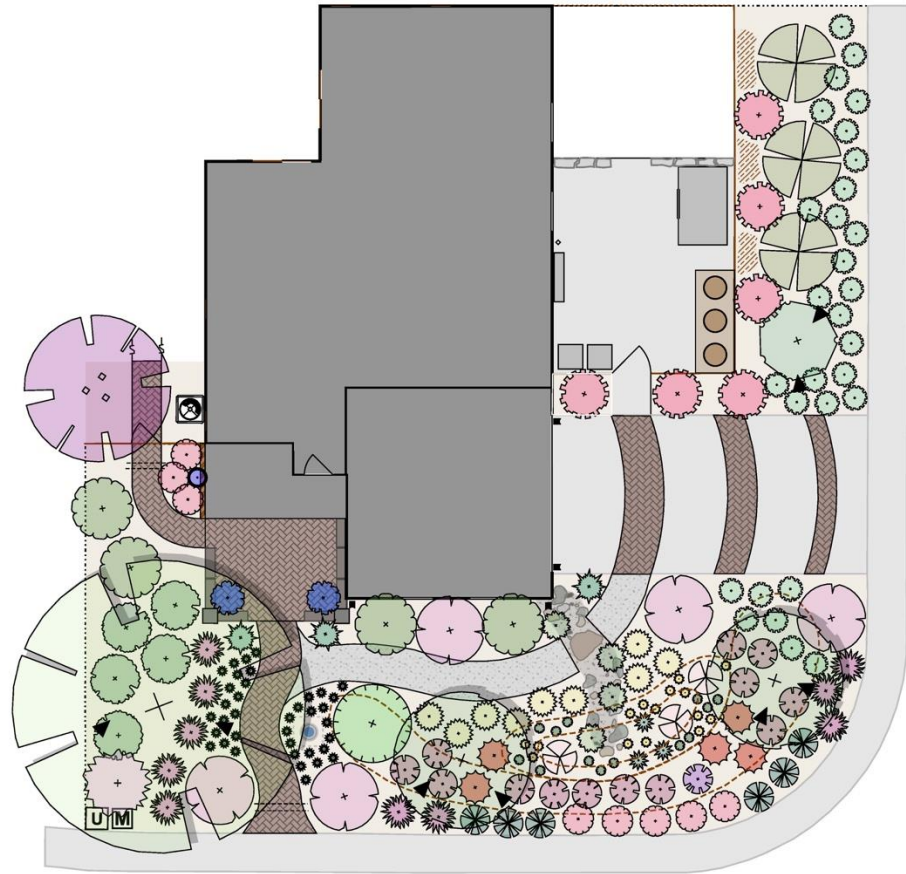
Numbers represent hydrozones. We'll cover this soon!



Plants in Your Plan Softscape

Softscape - Living,
water-consuming
Materials -- Plants

- Give plants room to grow to maturity
- Draw in at full size
- Consider how you are going to irrigate them





Plant Water Needs Water-use Classifications

High

Moderate

Low

Very Low

None

Note: Once
Established

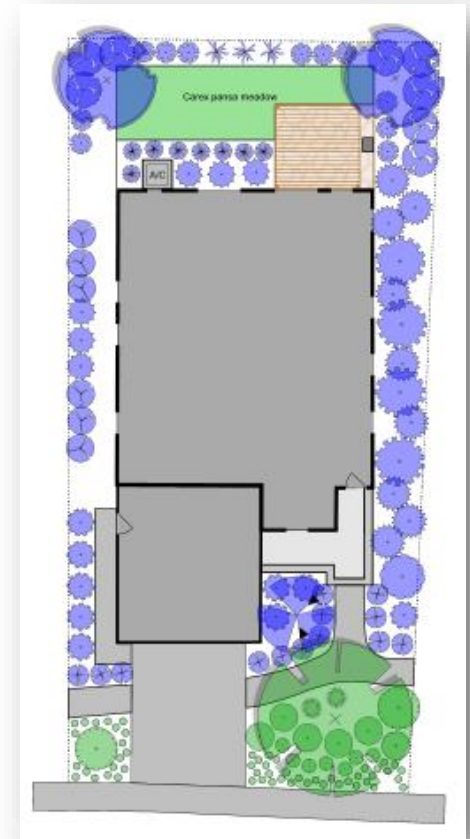
All CA Natives
Are NOT Low
Water-Use
Plants





Hydrozones & Efficient Use of Water

- Hydrozones group plants with same water & sun needs
- Separate valves (if possible)
 - Trees
 - Lawn
 - Edibles, fruit trees, etc.
 - Potted plants
 - When keeping mature plants
 - Plants that need seasonal rainfall & little, if any, supplemental water
- Note: Number of valves may be limited, especially in existing landscapes

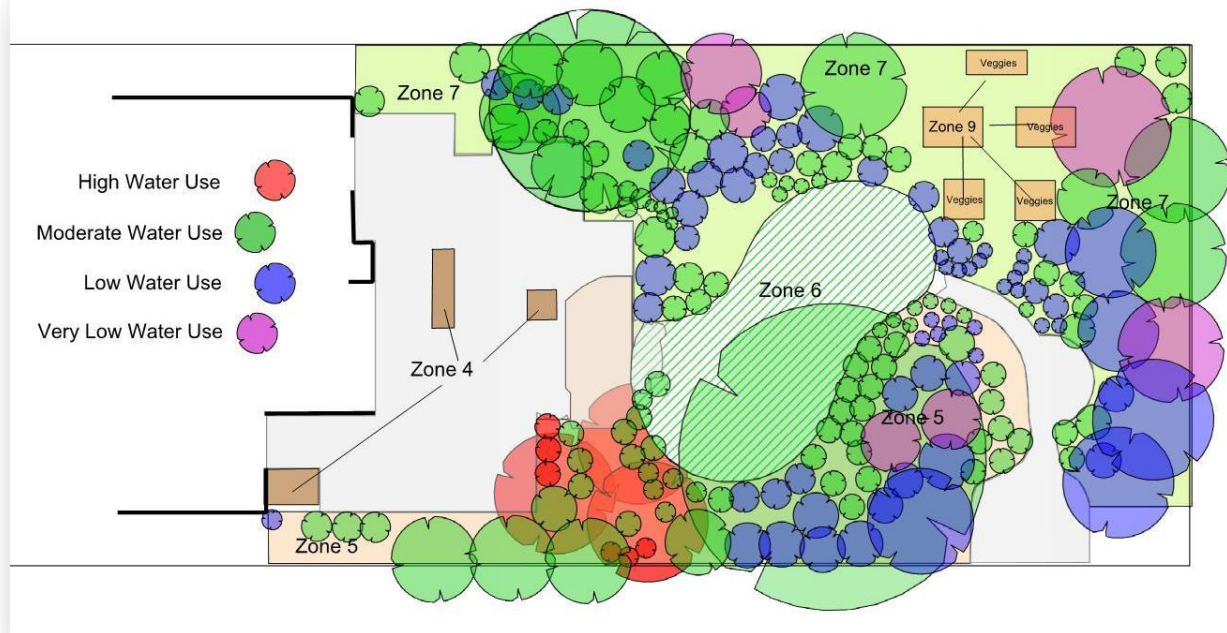


Correct Hydrozoning



Mixed Water-use Zones

- Do **NOT** mix plants with different water-use needs in same zone / on same valve
- Wastes water, requires increased care, & results in plant death



Incorrect
Hydrozoning

Hydrozone plan
Courtesy of
Lori Palmquist,
<https://www.puddle-stompers.com>



Let's Talk About Sprinklers & Lawns

- Do you need grass? Have it!
- Size appropriate for function
- Water it effectively & efficiently
- Use rotary- & precision-type nozzles
- **NO** runoff that carries pollutants into our waterways

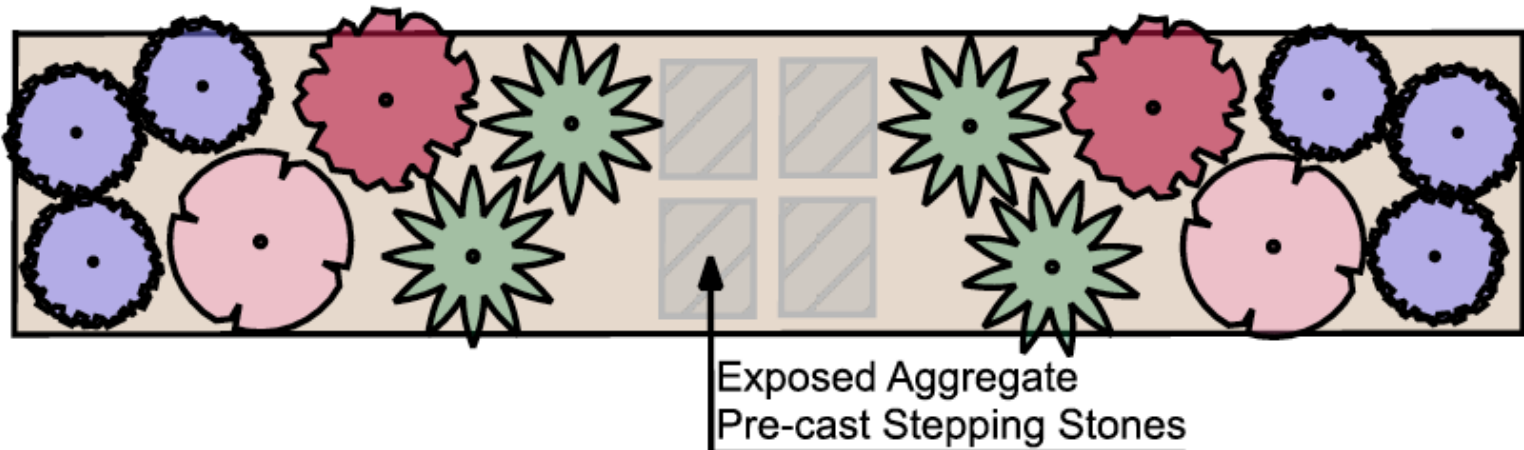




Ditch the Strip Instead...

- Diversity of plants
- Year-round interest
- Drip instead of sprinklers
- Prevents runoff
- Less maintenance

**California Native Plants
Low Water & Full Sun to Part Shade**





Please Say No to Synthetic Turf

Note:
Trees are not
staked properly

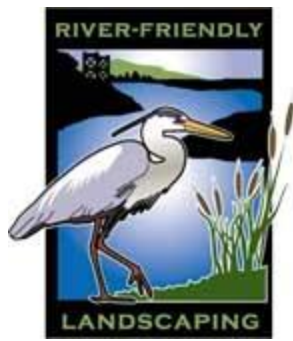




Right Plant, Right Place, Right Purpose

- Select plants based on climate & site conditions
 - Sacramento region & Central Valley
 - *Sunset Zones* 7, 8, 9, 14
 - Sun/shade
 - Wind
 - Microclimates





Select Plants Based on...

Eschscholzia californica
California Poppy



- Water & sun requirements
- Soil type (mix of sand, silt, & clay)
- Life cycle, deciduous, evergreen, etc.
- Climate adaptability



Vitex agnus-castus
Chaste Tree



Select California Natives



Philadelphus lewisii
Lewis Mock Orange

- Can require 60% to 90% less water
- Misconceptions about natives
- **Maintain year-round interest**
 - Use 60-70% **evergreen** plants
- In harmony with local plant communities (visit Calscape.org)
- Lower maintenance
 - When correctly designed & installed



Select Plants for Pollinators & Beneficials

- Landscapes are interconnected ecosystems of living creatures
- Humans have an important role to restore wildlife corridors
- Attract & support birds, bees, butterflies, beneficial insects, & all garden life

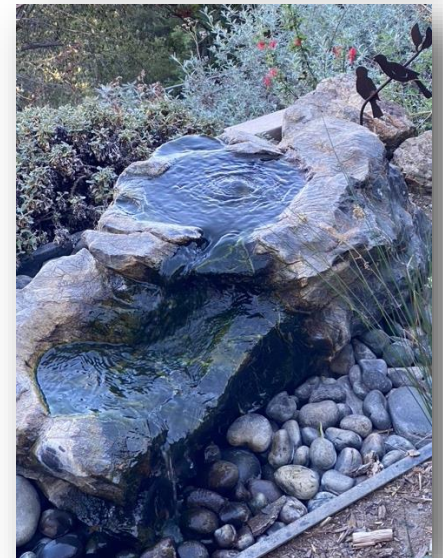
Refer to List of Resources:
CNPS Calscape
Xerces Society
SMUD Pollinator Fact Sheet





Pollinators & Beneficials

- Habitat – More than just “plants”
- Local CA native & non-native plants
- Diverse plant palette, year-round food sources
- Plants of varying heights for nesting & security
- Disease & pest resistant plants
- Groups of plants (not just one of each)
- Source of water





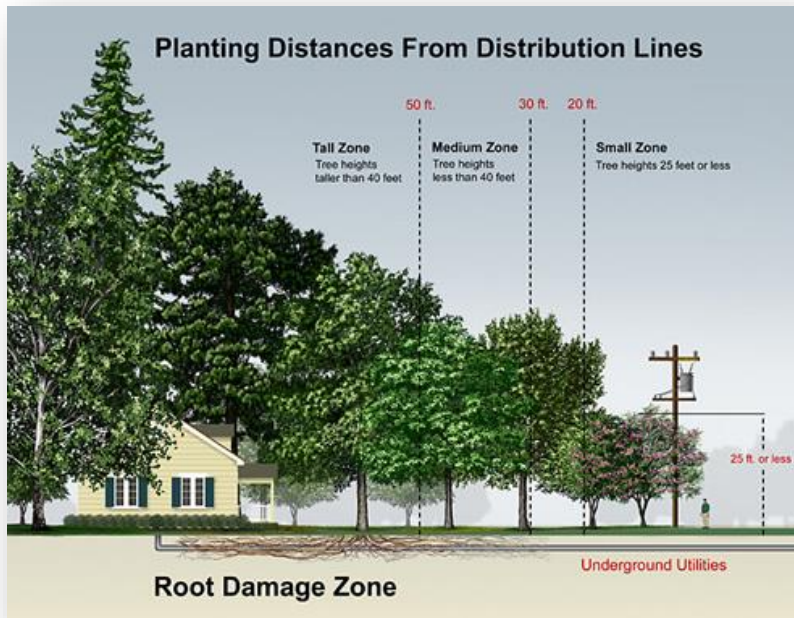
Create a Vibrant Landscape Color & Characteristics





Right Tree, Right Place

Placing Trees



Pacific Gas & Electric
pge.com

- Look up, down, & out
- Distance from structures, underground, & overhead utilities
- Deciduous trees on west & southwest side of house
- Solar panels, mature height & tree's shadow

Cal Poly Selectree

<https://selectree.calpoly.edu>

Sacramento Tree Foundation

<https://sactree.org>



Plant Shade Absorb Carbon Dioxide



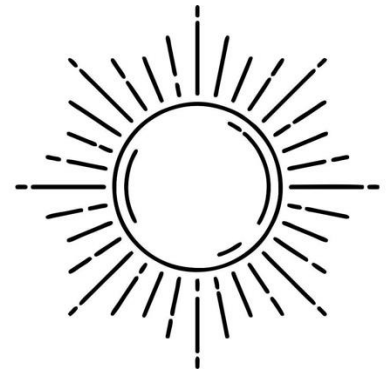
Trees & plants absorb (sequester) carbon dioxide (CO_2) in leaves, stems, roots.

Soil with organic matter & beneficial organisms, stores CO_2 as soil carbon.

Important strategy for addressing climate change.



Full Sun Observe Your Site



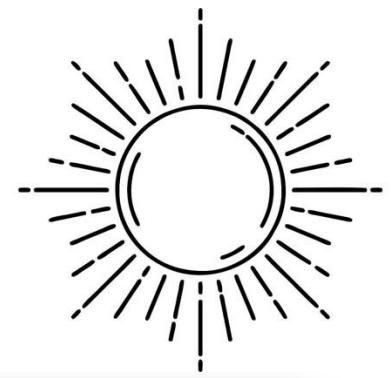
Arbutus 'Marina'
Marina Madrone
Up to 30' Tall / 30' Wide Tree

- Direct sun all day
- 10 hours or more
- Tough conditions





Part Shade Observe Your Site



- Less than 5 hours of direct sun (mornings)
- Shade for half of day (especially afternoons)

Carpenteria californica
'Elizabeth'
Bush Anemone
4'-6' Tall / 4-6' Wide Shrub





My Top Plant Tips

- Select plants based on natural shape & size.
- Select plants that require little to no pruning.
- Don't pack in too many plants.
- Create groups & swaths of plants.
- Allow space to access for maintenance.



Myrtus communis 'Compacta'
Dwarf Myrtle



Include Mulch in Your Plan

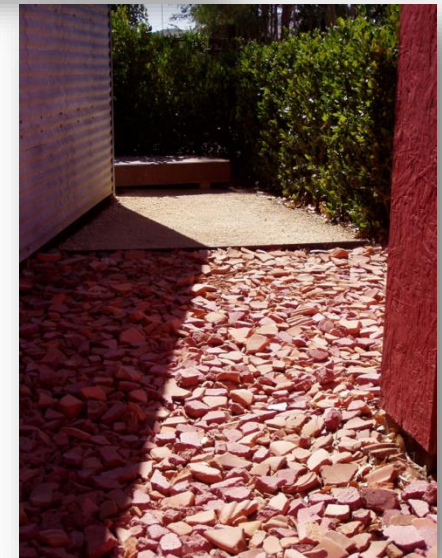
What is mulch & why use it?

- Any material spread evenly over the soil surface
- I add, to enhance the growth of plants & appearance of the landscape
- Can you name some benefits of mulch?



USE THIS 👍

NOT THIS 👎

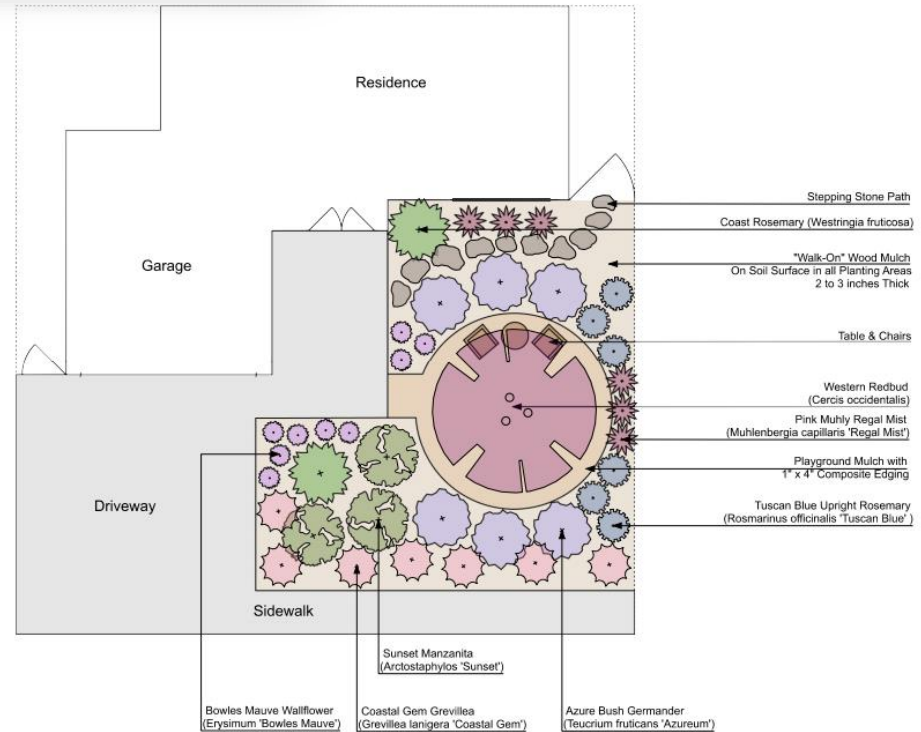


Final Plan Small Project

Plan View (Birds-eye View)

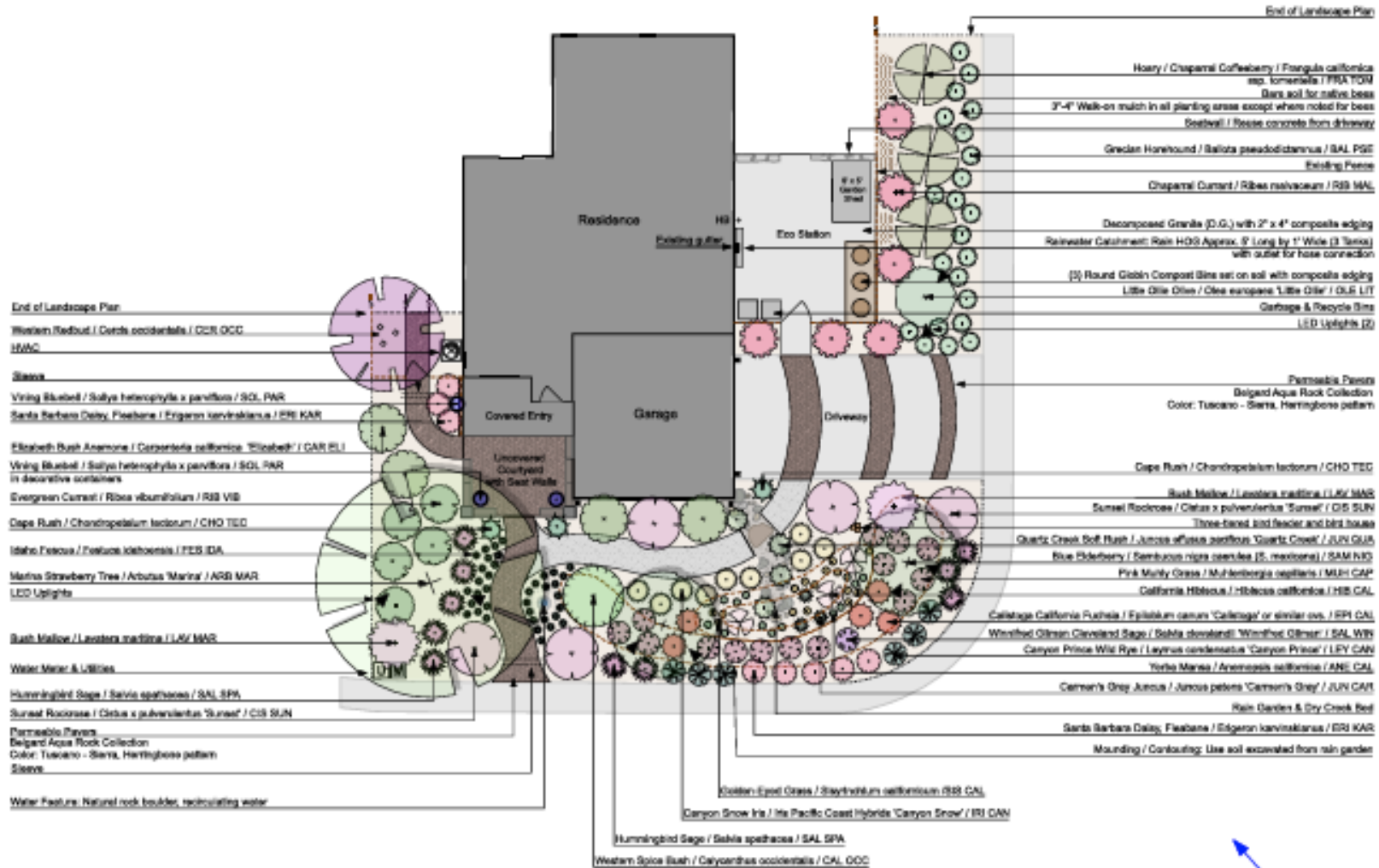
Here's an option...

- “Elevation” drawing
- Helps you visualize your design





Final Landscape Plan





WaterSmart, Resilient Landscape



Eco-friendly Landscape Design Plans
<https://puddle-stompers.com/waterwonk/new-ca/>



Purposeful Planning



- Use fundamental principles
- Healthy soil = Healthy plants
- Plant to support garden life
- Irrigation that matches what you are watering
- Keep water on property & not in stormdrain system & rivers
- Everything has a function
- Enjoy your water-wise, climate-resilient haven!





Purposeful Planning Start Today

What's next?

D.I.Y. DOS & DON'TS IN YOUR LANDSCAPE

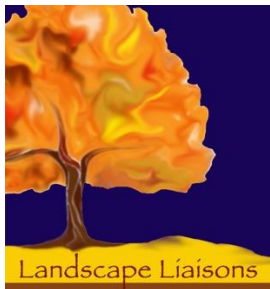
Free WaterSmart Class

October 19th -- 10 to 11:00 a.m.

Cheryl Buckwalter

Landscape Liaisons

landscapeliaisons@gmail.com



ReScape

