



Remove and Replace Your Lawn

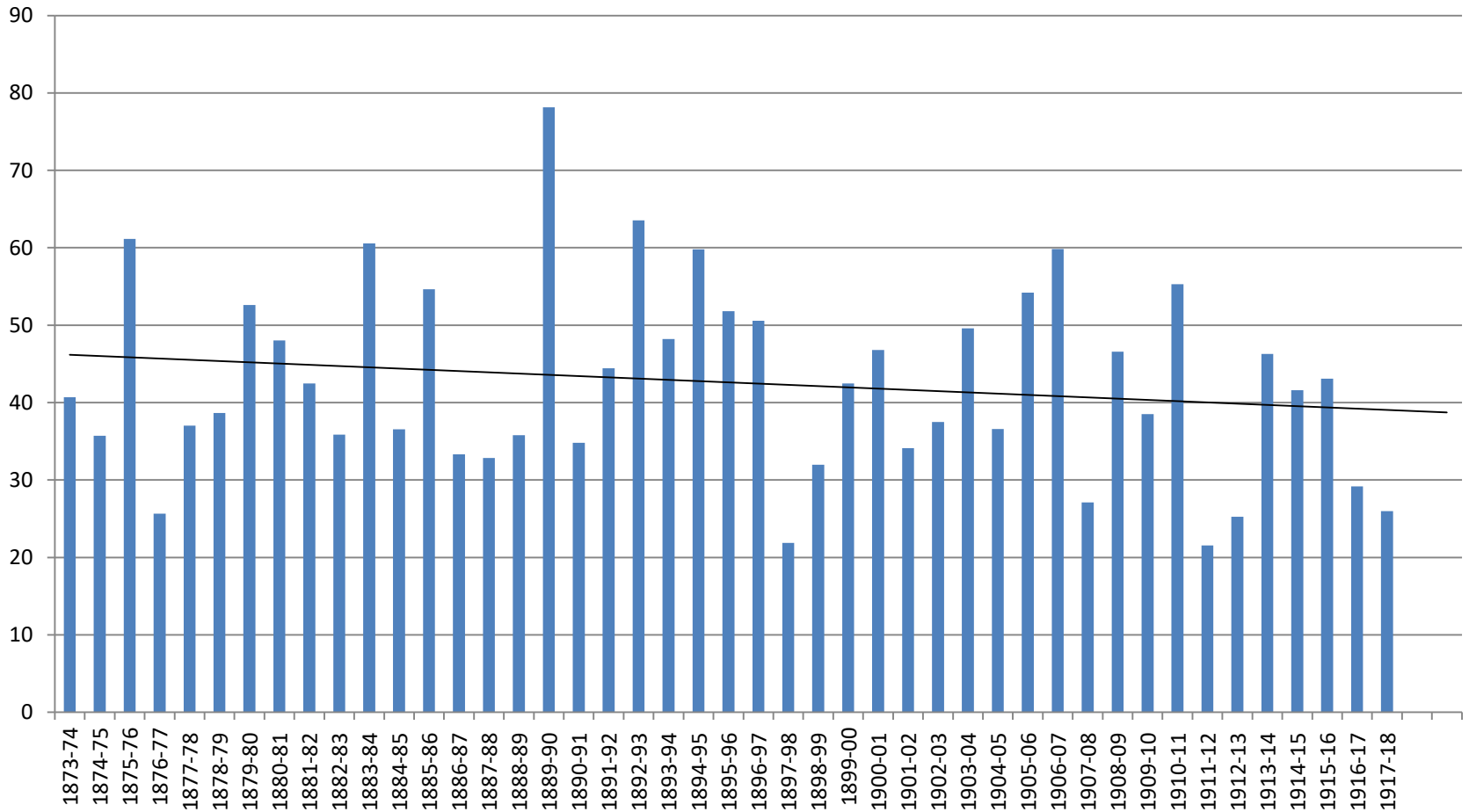
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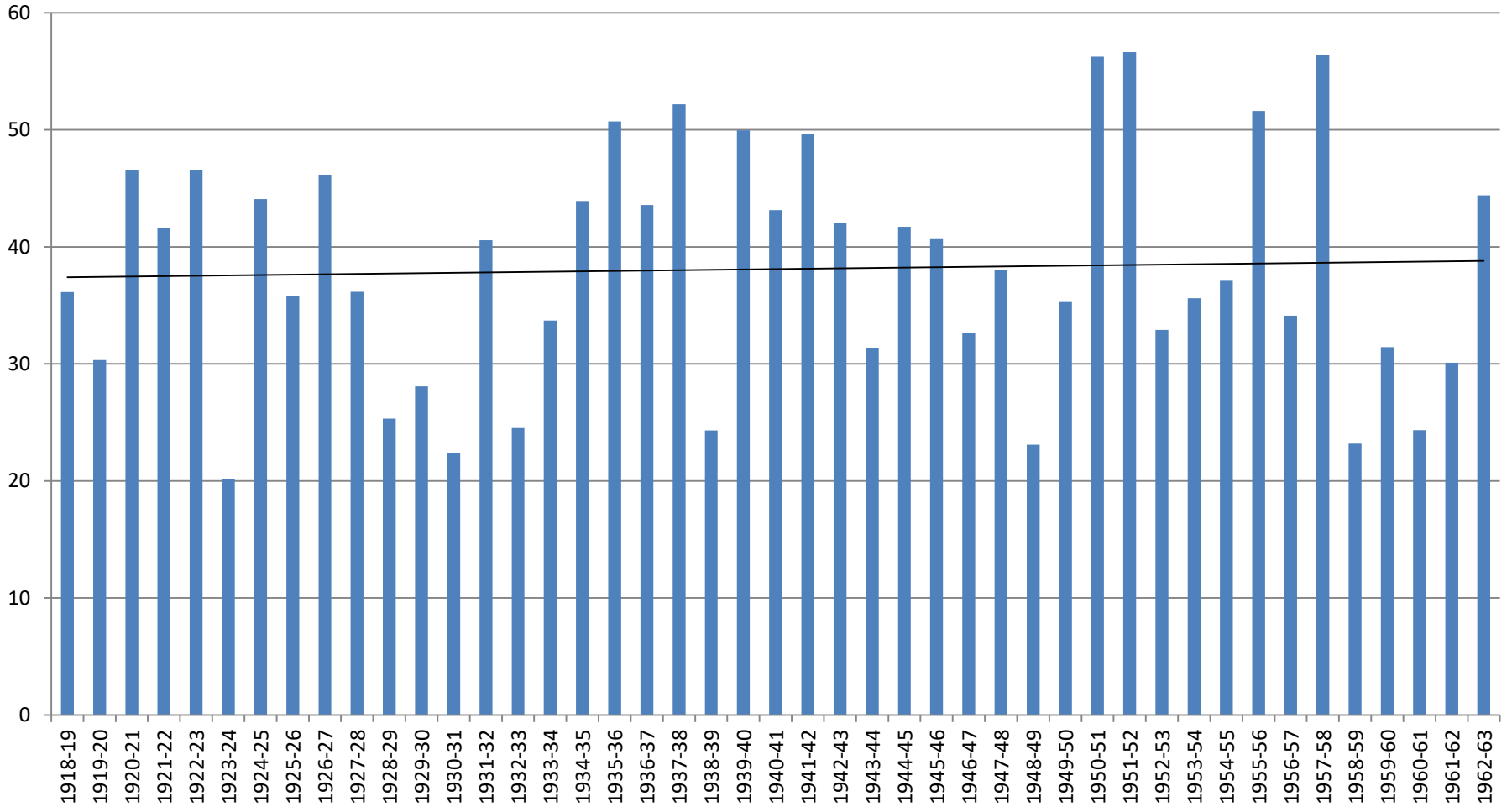


Placerville Rainfall 1873-1918

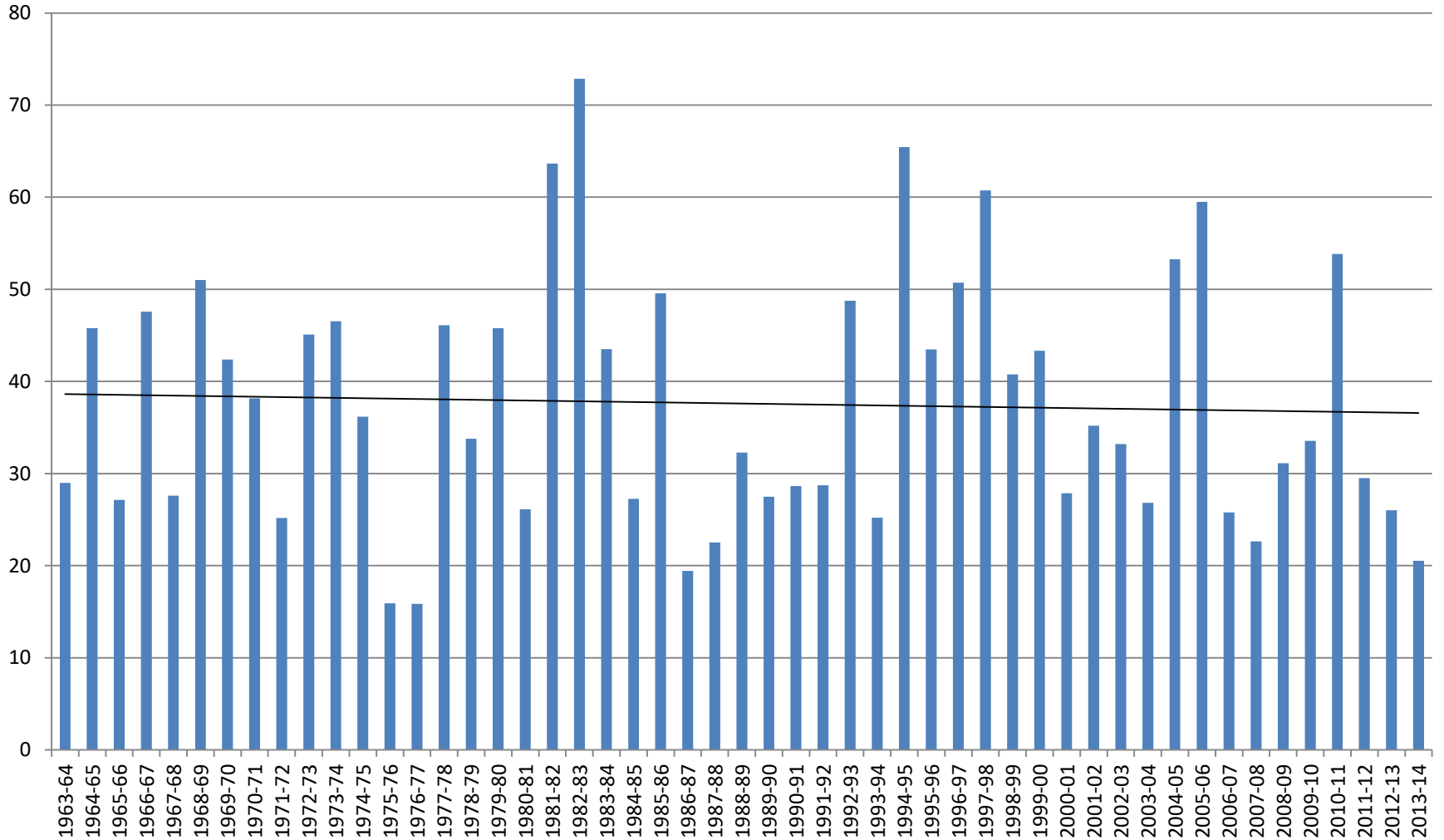


1919-1963

Rain Fall Totals 1919 -1963



1964-2014



Why Remove a Lawn?

- Save water.
- Less work (mowing)
- Less pesticide and fertilizer
- Room to plant something better
- Better for trees



Less Water!

- Average 232 gal/person/day 1990
- Average 178 gal/person/day 2010
- About $\frac{1}{2}$ goes to landscape use.
- 35-44 gal/square foot of lawn per year =
70,000 gal/year = 9000 cf = .206 acre feet for
2000 square foot lawn.

Less Fertilizer

- Lawns need lots to look good.
- More fertilizer → more water needed.
- Fertilizer runoff into waterways.

Better for Trees

- Any grass within 3-4 feet of the tree inhibits tree growth.
- Shallow tree roots because of frequent irrigation.
- Watering lawns kills native oaks, esp. Blue Oaks.



Options for Replacement

- Au Natural
- Edible garden
- Wood chips or shredded bark
- Hardscape—rocks, gravel, deck, patio, walkways.....
- Flowers



Herbicides

- If you have Bermuda or zoysia grass.
- Spray with glyphosate (Roundup) and wait a few weeks.
- Roundup may take 2 weeks to show effect.
- Grass must be green when sprayed.



- Water and wait for new grass sprouts.
- Spray again.
- Repeat until grass is dead.
- Rototill or sheet mulch if you want to plant something else.



Solarize

- Cover damp lawn with heavy clear plastic.
- Let sit in the summer sun for 4-6 weeks.
- Kills grass, most weeds and soil borne diseases and pests.
- Beneficial microorganisms return quickly.
- <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74145.html>

Mechanical

- Rent a sod cutter.
- Water after removal.
- Wait a few weeks.
- Spray or dig up grass shoots.
- Lots of hard work.

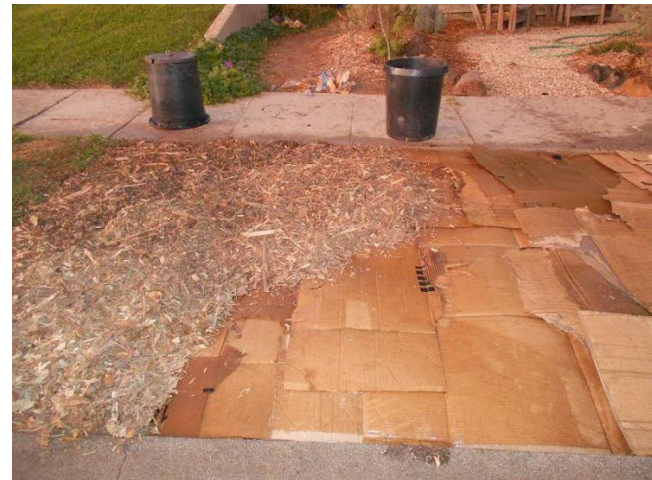


- Beware shallow tree roots.
- Turn over sod and then sheet mulch.
- May be best if lawn was laid as sod.
- Plastic mesh in sod?



Sheet Mulch

- Water grass.
- Cover with cardboard or layers of newspaper.
- Cover with a few inches of compost, manure, leaves, grass clippings, straw or shavings.



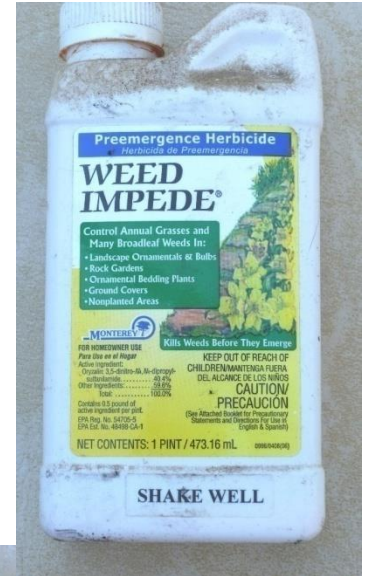
- Water well.
- Improves the soil for planting.
- Wait at least a month.
- http://ucanr.edu/sites/scmg/Lawn_Replacement/Grass_Removal_Methods/

Weed Control

- Weed cloth.
- Pre-emergent weed killer, such as Preen or Weed Impede.
- Pull 'em by hand.
- Spray with glyphosate (Roundup) or other weed killer.
- Lots of mulch is best because it cools the soil and decreases water loss.

Pre-emergent Herbicides

- Stop seeds from sprouting.
- Must be used BEFORE weeds sprout.
- Must be watered (or rained) into soil.
- Harmless to most established plants.
- Reapply every 2-4 months.



Post-Emergent Herbicides

- Kill established plants.
- Don't use if there is any wind.
- Some are "selective."
- Must be reapplied when new weeds sprout.

Ornamental Weed Control
• Ornamental Weed Control
• Non-Planted Areas

Active Ingredient:
Glyphosate, N-(phosphonomethyl) glycine,
in the form of its isopropylamine salt*

Other Ingredients.....

Total.....

*Contains 480 grams per liter or 4 pounds per U.S.



Ground Covers

- Wood chips or shredded bark.
- Gravel and rocks get HOT.
- Low growing plants



Emerald Carpet
Manzanita



Low growing Juniper,
the little green gas can

Avoid Water-thirsty Trees

Birch, Redwood,
Red Maple, Magnolia



Avoid Invasive Plants

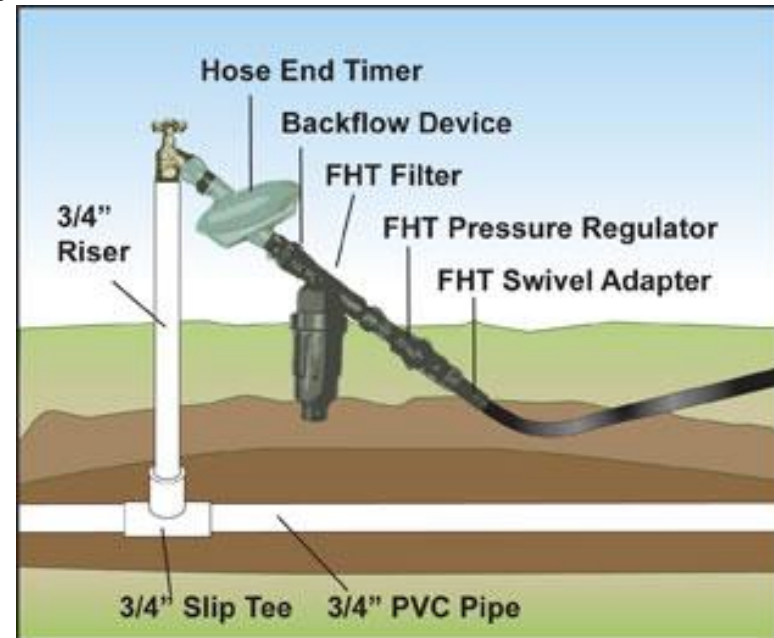


Too Much Gravel



Sprinkler → Drip

- “Google” drip irrigation system.
- Reduce water pressure to 20-30 psi.
- Filter if on well water.
- Antisiphon valves required.
- Timers



- Valves must not be lower than drippers.
- Limit to how long hoses may be.
- Limit to how many drippers.
- Keep slugs out of antisiphon valves.



Idiot Proof Sprinkler to Drip



Parts

- ½ or ¼ inch hose with drippers every 6-12 inches.
- Drip tape.
- In line valves.



More Parts

- Shrubblers
- 1-4 gal/hour drippers
- Sprayers



Cost--\$1100

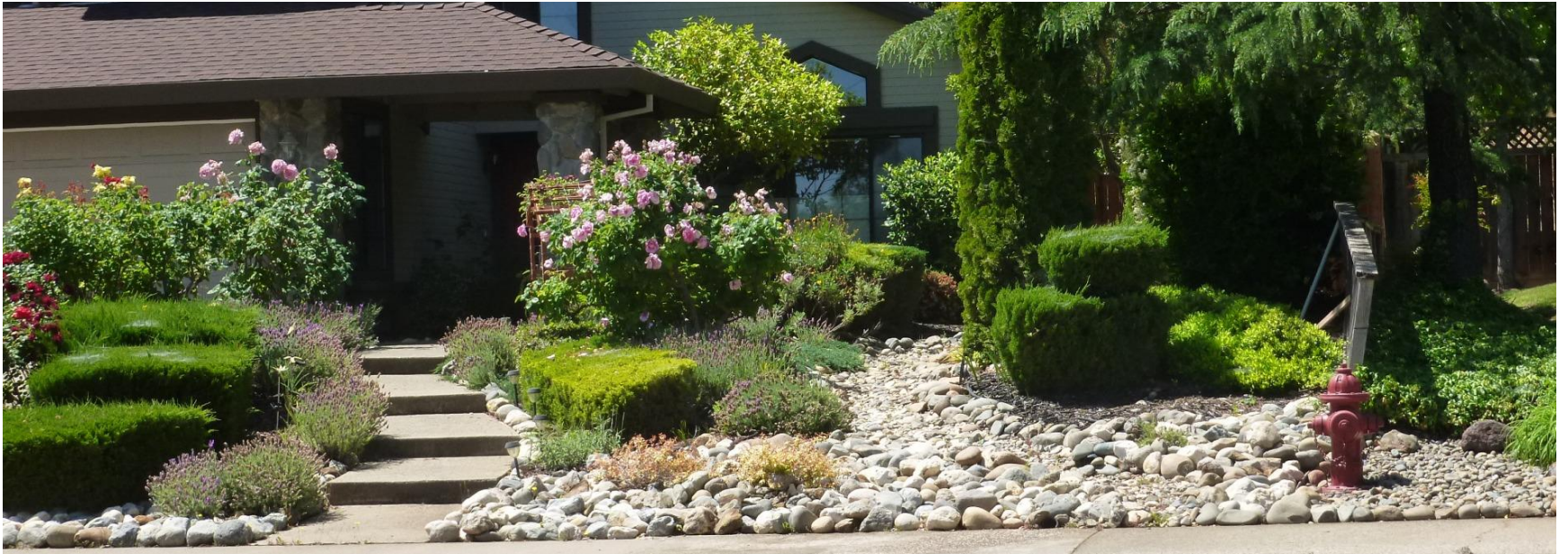






Steep yards







Resources

- <http://ucanr.edu/sites/WUCOLS/>
- <http://www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf>
- <http://www.cal-ipc.org/> info on invasive plants.