

DROUGHT TOLERANT

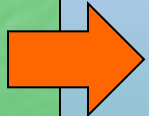


LANDSCAPE MAINTENANCE

Deva Luna – EarthCare Landscaping 408-871-2792

Fourth of a 4 part series

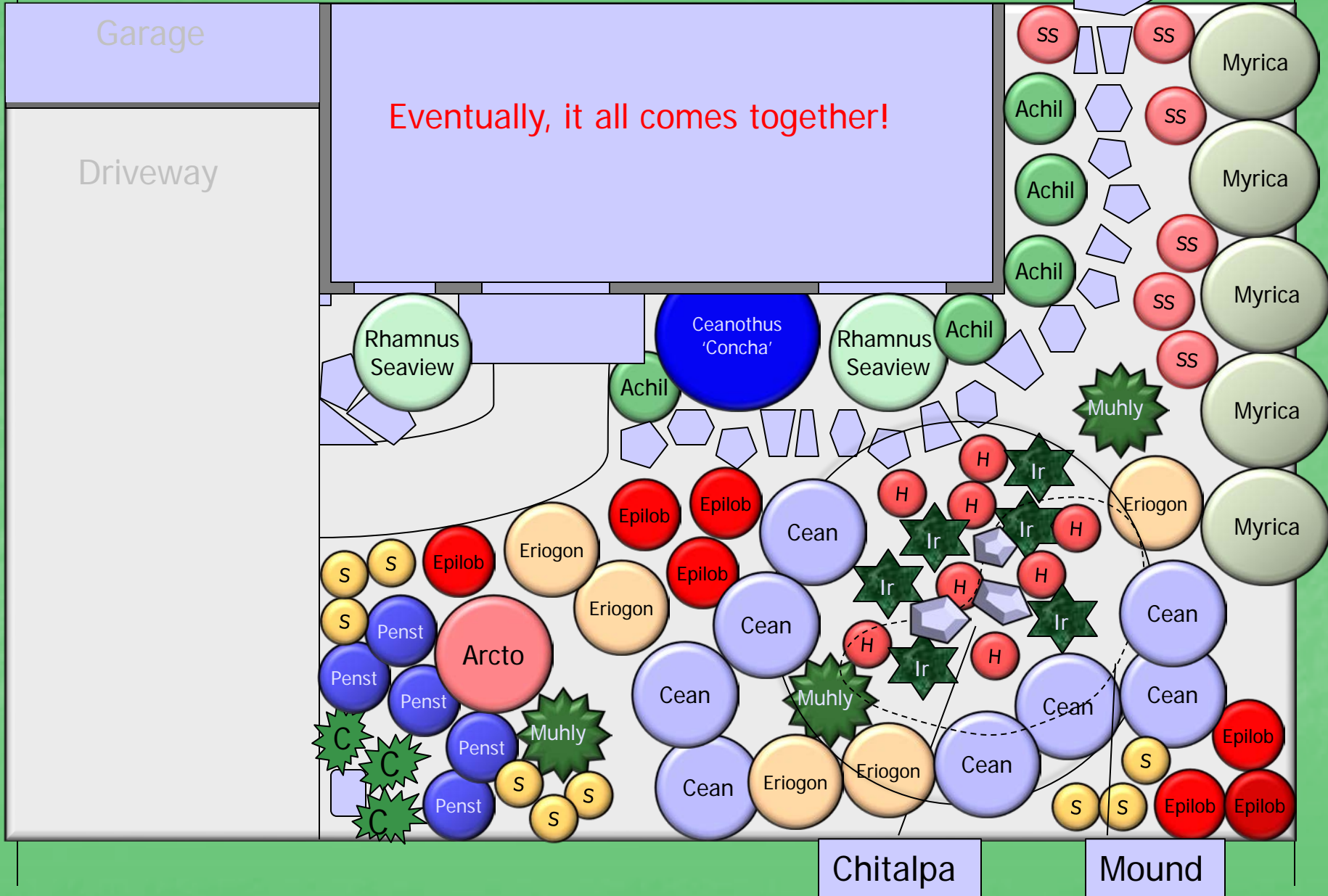
1. Drought Tolerant Landscape Design
March 22, 2018
2. Drought Tolerant Plant Selection
April 5 , 2018
3. Drought Tolerant Landscape Installation
April 19 , 2018
4. Drought Tolerant Landscape Maintenance
May 3, 2018



#1 Design recap

- Goals
- Common mistakes
- Design concepts
- Elements of the garden
(large and smaller bones, guts, skin, accents)
- Hydrozoning
- Steps in creating a design

Create a plan step by step

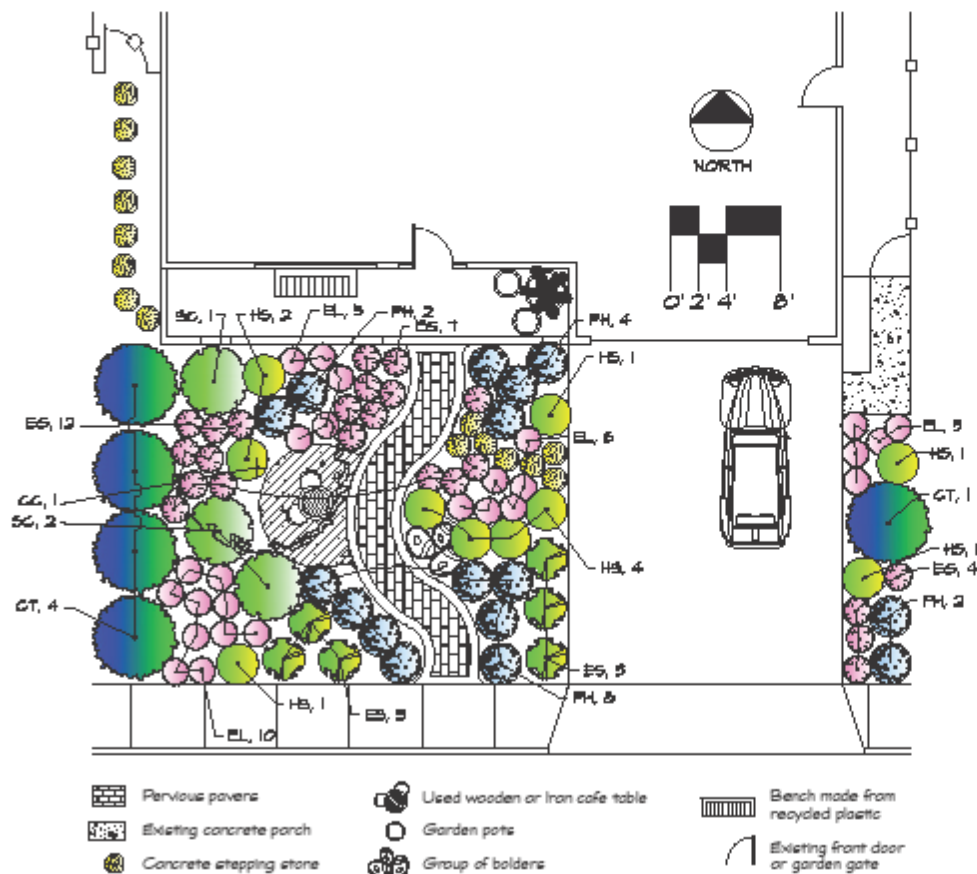




GREEN GARDENS HEALTHY CREEKS

Café Garden (Small, Sunny Yard)

Sustainable concept design for yards in Santa Clara Valley



Rosy Buckwheat
Erigeron grande var. *rubescens*



California Fuchsia
Epilobium septentrionale
'Wayne's Silver'



Seaside Daisy
Erigeron glaucus 'Wayne Roderick'



Beard Tongue
Penstemon heterophyllus
'Margarita Bop'



Cleveland Sage
Salvia clevelandii



Sticky Monkeyflower
Mimulus aurantiacus

About the Concept Design Series

These designs are simple concepts to provide inspiration and ideas. Check with local nurseries, landscapers or other sustainable garden designers to help choose the best plants for your yard.

10 sample plans / City of San Jose website

<http://www.sanjoseca.gov/index.aspx?NID=3734>

#2 Plant selection recap

- How to determine what is drought tolerant?
- Lists of trees & edible trees
- Shrubs, vines, ground covers
- Perennials, annuals, bulbs
- Succulents, grasses, ferns
- Reference books
- Nurseries

WUCOLS IV

Water Use Classification of Landscape Species

- 3500 species of landscape plants
(Including 44 different Manzanitas, 49 Oaks, and 90 Sages!)
- Listed by the amount of water they need
- Compared to irrigated turf grass (% ET_o)

Category	Abbreviation	Percentage of ET _o
High	H	70-90
Moderate/Medium	M	40-60
Low	L	10-30
Very Low	VL	< 10

HELP WITH HYDROZONING!

www.waterwonk.us

California plant database search tool

Choose city ► *Plant search* ► *My plant list*

1

A plant's water needs vary with the climate region where it will live. Choose a city and the tool will place your search in the correct WUCOLS climate region.

2

Proceed to the plant search page, and search to your heart's content. There are 12 different search criteria you could specify, or just bring up the entire regional list, or the full list showing all plants and all 6 regions. You will be presented with the WUCOLS water-use value for each plant.

3

Create a list of plants for your project. This list can be printed or downloaded to your favorite spreadsheet program. We will save your plant lists for you in our database.

- You may have one courtesy plant list for each region. To access your existing plant list for any given region, you must first choose a city in that region, and then go to the plant search page. Your list may be accessed from the "Plant Search" page.
- In order for you to create plant lists, you must register for the site. Signing up is free, quick, and easy to do.

What is WUCOLS?

Water Use Classifications of Landscape Species

Water Use Classifications of Landscape Species (WUCOLS) provides a guide to estimating irrigation water needs of landscape plantings in each of 6 distinct California climate regions. WUCOLS was developed by the University of California Cooperative Extension in cooperation with landscape professionals and funded by the California Department of Water Resources.



Click pdf icon to view or download WUCOLS IV plant list. Learn more about WUCOLS [here](#)

Get started



#3 Installation recap

- Costs
- Tools, materials, sourcing
- Soil tests, labs
- Sheet mulching, mulch
- Mounds, slopes
- Mycorrhizae, compost, compost tea
- Contractor math
- Drip irrigation

Maintenance focus

- Building the soil-foodweb
- Fertilizing
- Organic weed control
- Pests
- Pruning
- Watering, irrigation checks

Different Kind of Maintenance

- If you have “Lost Your Lawn”, you will no longer need weekly maintenance
- Periodic additions of mulch when needed
- It is best to keep blowers to a minimum (rake the autumn leaves, or leave them as mulch)
- No pesticides (kills the good bugs and the soil biology)
- Selective shaping; no pruning with a electric hedge shears

Good book:

California Native Gardening – A month by month guide – Helen Popper

Find a Green Gardener:

<http://www.mywatershedwatch.org/findgardener.html>

Quarterly Maintenance

Spring

- Turn on irrigation system
- Check irrigation system for leaks, broken lines
- Apply compost tea

Summer

- Keep an eye on irrigation
- Watch for pests (IPM)
- Replenish mulch if needed
- Some deadheading (remove dead flowers to encourage bloom)

Fall

- Turn down irrigation timer
- Rake leaves (put in compost pile)
- Cut back perennials after bloom, groom grasses
- Hand weeding
- Apply compost tea

Winter

- Turn off irrigation system
- Continue hand weeding where needed
- Pruning of woody trees and shrubs

REMEMBER

Santa Monica Demonstration

“garden/garden” ?



Conventional Landscaping

California Natives



The Numbers Speak for Themselves

Traditional Landscape



57,000 Gallons

WATER



670 Pounds

YARD WASTE



80 Hours

MAINTENANCE
HOURS

Sustainable Landscape



6,000 Gallons

WATER



250 Pounds

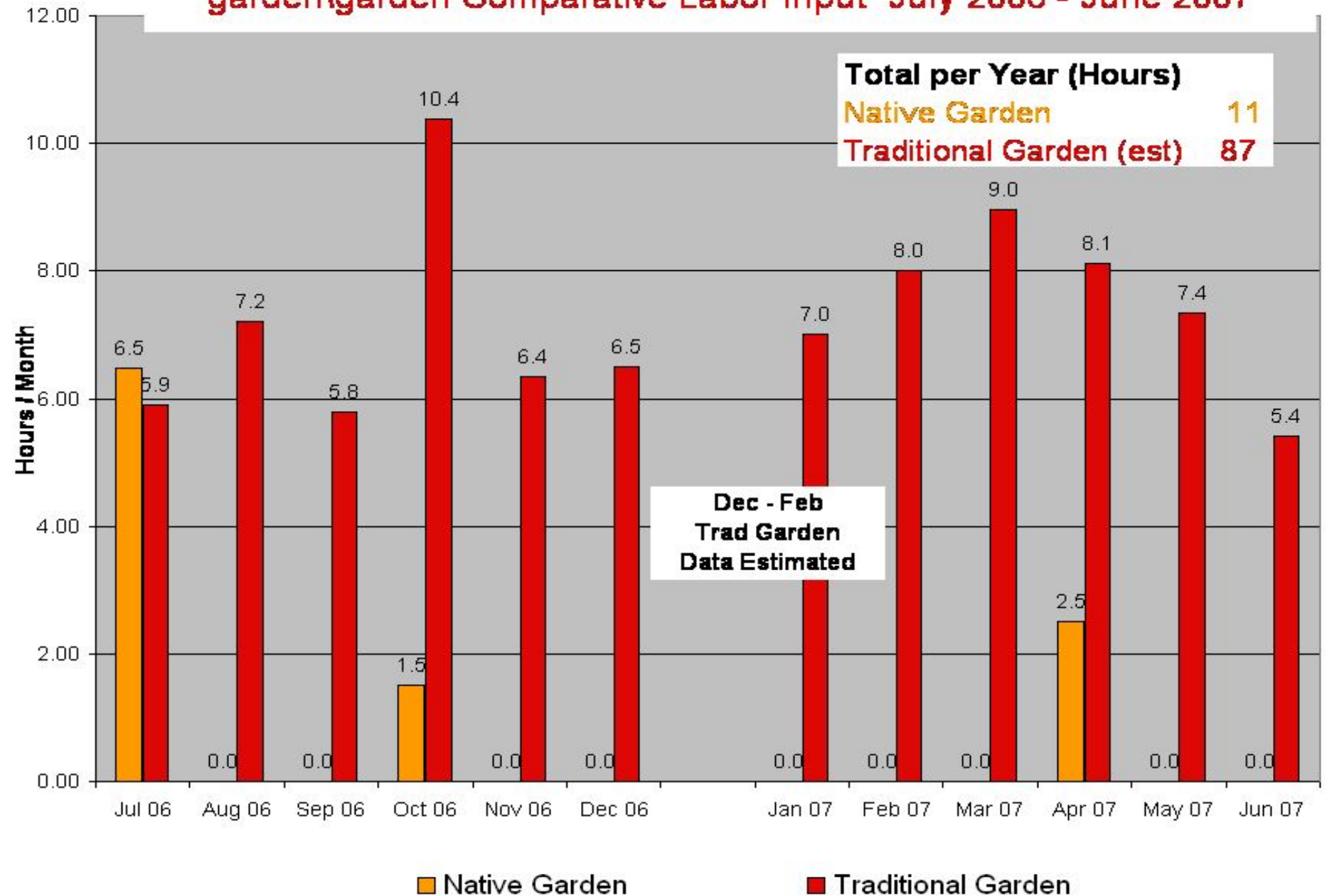
YARD WASTE



15 Hours

MAINTENANCE
HOURS

garden\garden Comparative Labor Input July 2006 - June 2007



Sustainable Practices

HEALTHY SOIL!

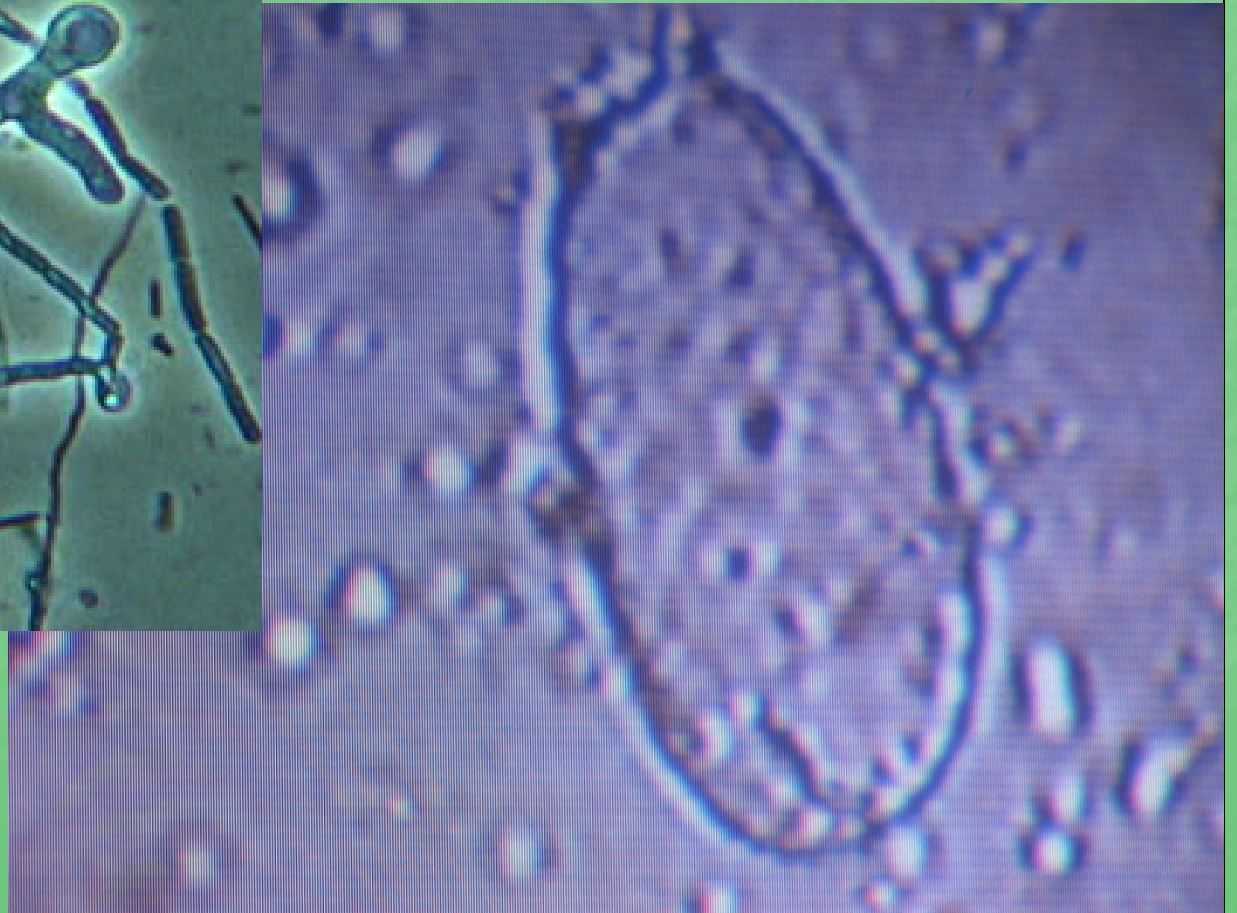
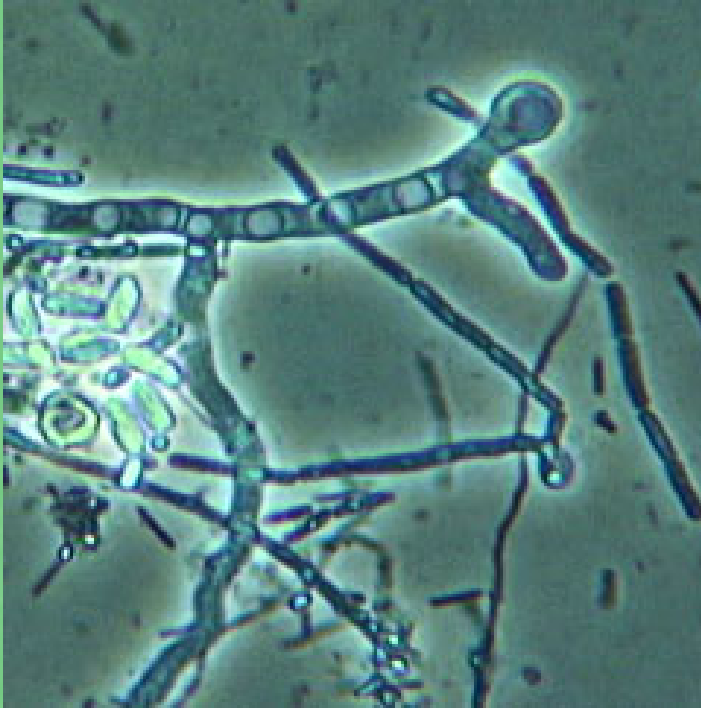
- Organic fertilizers
- Mycorrhizae
- Compost
- AACT (Aerobically activated compost tea)
- Sheet Mulch
- Electric blower, just for paths

CREATING HEALTHY SOIL

A biologically alive soil holds water well and drains well

- Add organic matter (compost)
- AACT (Actively Aerated Compost Tea) available at Lyngso Garden Materials, etc.
- Don't compact (no digging when soggy)
- Don't poison the Soil Foodweb with pesticides, herbicides, or chemical fertilizers
- Protect the soil with organic mulch

SOIL THAT IS ALIVE



Fertilizing

- Native plants - no fertilizer
- Exotic non-native ornamentals and fruit trees
- Specialized organic fertilizers for Roses, Citrus, Azalea/Rhody/Camellia
- EB Stone, Dr. Earth, fish emulsion
- If you need to (sandy soils?), use a low first number (Nitrogen)
- Apply at $\frac{1}{2}$ - $\frac{1}{3}$ recommended dose
- Perennials/evergreens: apply March-April with the new growth
- Deciduous plants: apply when they leaf out in Spring

Sustainable Practices

WEED MANAGEMENT

- Mostly pulling, hoeing, etc.
- Get rid of invasives, Privets, Feather Grass
- Mulch & sheet mulch
- Paper under mulch (organic weed block)-
mainly used at installation time
- Corn gluten
- Organic sprays, flaming, steam, etc.
often not worth the cost or effort

Sustainable Practices

PEST MANAGEMENT

- Learn IPM
- Beneficials like Delphastus beetles for white fly
- Horticultural or Neem oil
- Foliar sea kelp for bacterial molds
- Dormant spray
- Insecticidal soap
- Compost tea as a preventative for Peach Leaf Curl

General chores

- Remove dead, dying, diseased plants
- Top off mulch
- Clean up piles of leaves and branches
- Remove dead wood, etc.

When to plant?

- Fall is best, Spring next best, then Winter. Summer is most stressful.
- Annuals: Oct – November
- Shrubs: Oct – February
- Riparian plants, any time of year (must be irrigated anyway)

PLANTING TIPS

- Be aware of the mature size, and site requirements of each plant
- Choose “garden adaptable” plants
- Skip the fertilizer
- Plant in native soil
- Apply beneficial mycorrhizae at time of planting
- Improve the soil - mulch and compost tea
- Plant high or on a mound



Photo and Design: Stephanie Morris



Design: Annaloy Nickum Photo: Deva Luna



Design: Sherri Osaka , Installation: EarthCare Landscaping

Pruning Tips

- Remove all dead, dying & diseased
- Plant separation (avoid overplanting)
- Crown reduction, selective natural look
- Make proper cuts, 1/8 inch above collar
- Learn the plants! If in doubt, only remove 1/3 of plant
- Prune broad-leaved evergreens and shrubs in early summer
- Want a fuller, denser plant? Tip prune often. Pretend you're a deer

Minimal Pruning Only

- Ceanothus
- Manzanita
- Coffeeberry (if planted in correct location)
- Indian Hawthorn



Yankee Point California Lilac

Ceanothus griseus horizontalis 'Yankee Point'

Wait until frost is over

- Mexican Sage
- Geranium (Pelargonium)
- Citrus
- Avocado
- Bougainvillea
- Fuchsia

Mexican Sage

Salvia leucantha



Heavy Pruning Okay

- Baccharis (Coyote Bush)
- California Fuchsia
- Matilija Poppy



DWARF COYOTE BUSH

Baccharis pillularis 'Twin Peaks'



MATILIJJA POPPY

Romneya coulteri

Dead heading & cutting perennials

- Deadhead during bloom season to remove faded flowers & encourage reblooming
- Cut back in Fall/Winter to refresh and make more compact (remove brown foliage and any legginess)



Sulfur buckwheat
Eriogonum umbellatum var. *polyanthum*



Woolly Golden Aster

Heterotheca
'San Bruno Mountain'





CALIFORNIA FUCHSIA

Epilobium 'Select Mattole'

WATERING TIPS

- Test your soil for drainage speed
- For better drainage, plant on a mound
- Even drought tolerant plants, if nursery grown, will need irrigation for at least 2-3 summers.
- In general, water infrequently, but deeply
- But really, check the soil with your hand and/or moisture meter!
- Overhead watering not recommended due to fungal pathogens caused by moist warm conditions.

How often to water???

“ . . . It depends . . . ”

- Water the pot before planting
- Water the plant right after planting (soak the rootball and surrounding area)
- Even drought tolerant plants need extra watering while establishing
- Rough sample guidelines will vary with soil type, time of year, irrigation system, sun/shade, wind, etc.
- CHECK if top two inches dry out between watering (good)

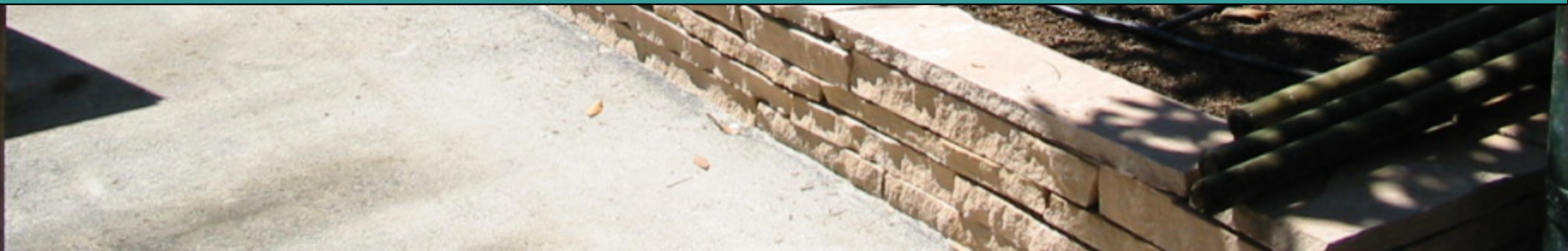
- NEW for one month –to get roots into soil: 30 min every 3 days
- FIRST Summer – 1hour/every 5 days (point source), 2 hours for inline
- SECOND Summer – 1 hour/every 10 days (point source), 2 hours for inline
- THIRD Summer – 1.5 hours/every 15 days (point source), 2-3 hours inline
- Increase intervals between watering, not reduce amount of water!



Expandable drip irrigation



Netafim Drip Tubing Grid can be buried





Plants that are summer dormant



No water in Summer



Woolly Blue Curls

Trichostema lanatum



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No Summer water when established

- Coffeeberry
- Some Ceanothus
- Toyon
- Flannelbush
- Western Redbud
- Woolly Blue Curls
- Douglas Iris
- Many Buckwheats
- White Sage
- Dara's Choice Sage
- Cleveland Sage



MANZANITA

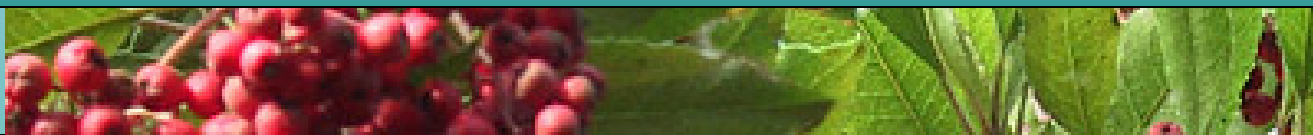
Arctostaphylos 'Dr. Hurd'



CEANOTHUS 'CONCHA'

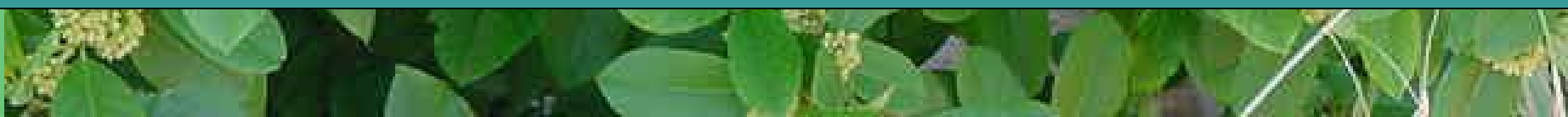


Toyon
Heteromeles arbutifolia





California Coffeeberry
***Rhamnus californica* 'Eve Case'**





California Grape
***Vitis californica* 'Roger's Red'**



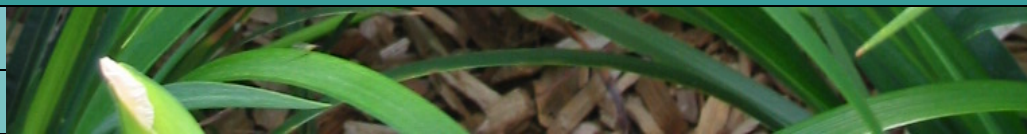
Cleveland Sage (with Monkey Flower)

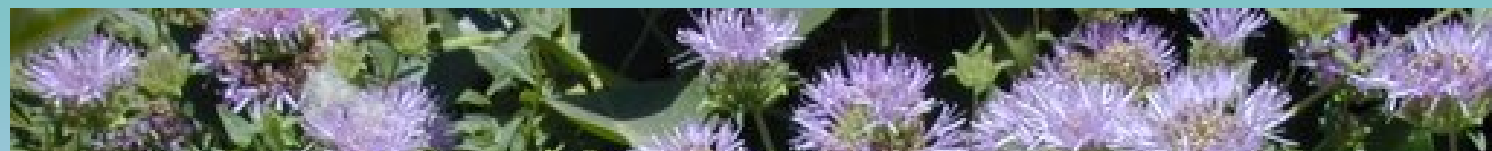
Salvia clevelandii





Dry Shade





Perennials

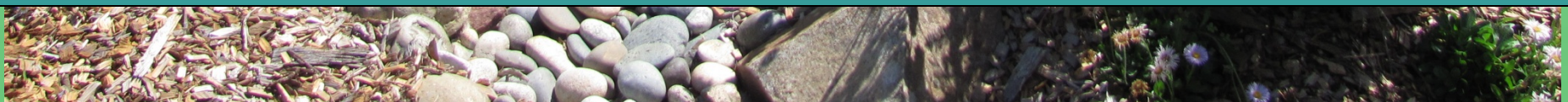




FOOTHILL PENSTEMON
Penstemon heterophyllus



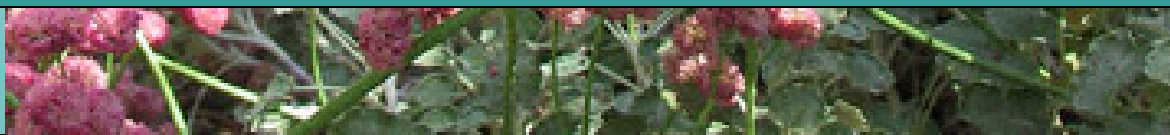
Yards with lots of perennials need annual pruning





ROSY BUCKWHEAT

Eriogonum grande var. rubescens





Cedros Island Verbena

Verbena lilacina 'De La Mina'



COYOTE MINT
Monarda villosa



Photo: Deva Luna

Beach Aster

Erigeron glaucus 'Wayne Roderick'



Hummingbird Sage
Salvia spathacea

Pruning Grasses

- Cut back in Winter, if at all
- Better to “groom” with hands or a steel rake for a more natural look

Grasses



Deer Grass *Muhlenbergia rigens*



Idaho Fescue

Festuca idahoensis 'Siskyou Blue'



Design & Installation: Erin Dougherty Photo: Deva Luna

BERKELEY SEDGE

Carex divulsa



Design & Installation: Erin Dougherty

Photo: Laura Gardner

Berkeley Sedge after haircut

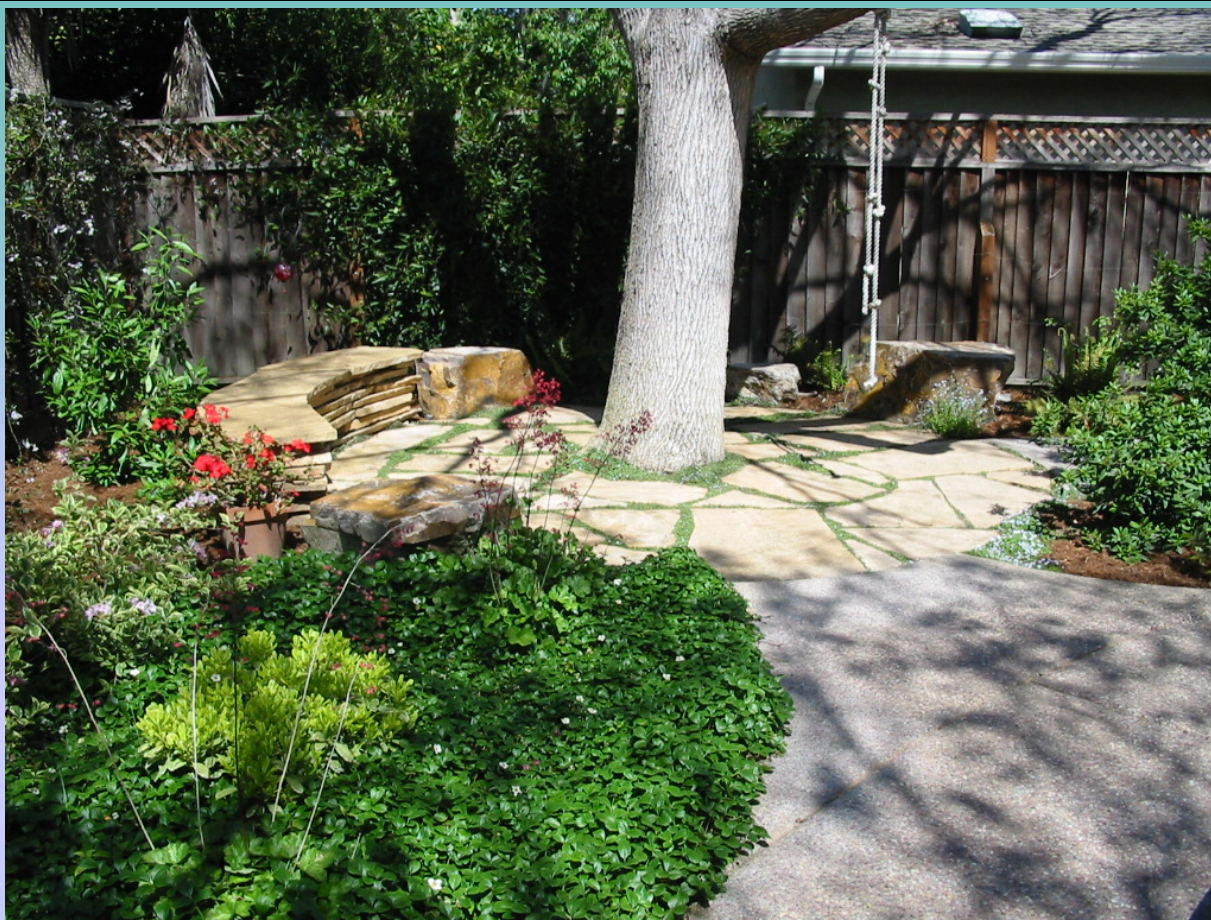


Riparian and Coastal Plants



Need Summer Water





Design: Sherri Osaka Photo: Deva Luna

Beach Strawberry *Fragaria chiloensis*



Design: Fran Adams Photo: Deva Luna

Arctostaphylos uva-ursi - Manzanita
Heuchera 'Old La Rochette - Alum Root



Design & Photo: Sherri Osaka

Coastal California Lilac

Ceanothus hearstiorum



Wild Ginger
Asarum caudatum



Flowering Currant
Ribes sanguineum

RESOURCES

www.goingnativegardentour.org

Going Native Garden Tour – April each year

<https://groups.yahoo.com/group/GardeningWithNatives>

Yahoo Group – very helpful!

www.cnps.org

California Native Plant Society

www.cngf.org

California Native Garden Foundation

Excellent Book:

Care & Maintenance of Southern California Native Plant Gardens

Rancho Santa Ana Botanic Garden

California natives can be spectacular!!!

