



CITRUS
HEIGHTS
WATER
DISTRICT

Capture That Rain for Your Garden

Welcome!

The webinar will begin soon.

CITRUS
HEIGHTS
WATER
DISTRICT





Capture That Rain for Your Garden

Presented by
Cheryl Buckwalter

Consultant, Educator,
Residential Landscape Designer
landscapelaisons@gmail.com



ReScape





Capture That Rain for Your Garden

- About Citrus Heights Water District
- Services
 - Water-wise house calls
 - Rebates

Contact Us

waterefficiency@chwd.org

(916) 725-6873



CITRUS
HEIGHTS
WATER
DISTRICT

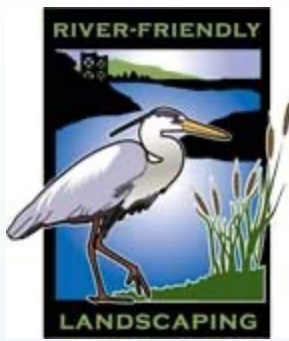
Capture That Rain for Your Garden

**Webinar recording & handout at
<https://chwd.org/community/>
(check in about 2 days)**



Chat

Enter questions into the Chat



Capture That Rain for Your Garden

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

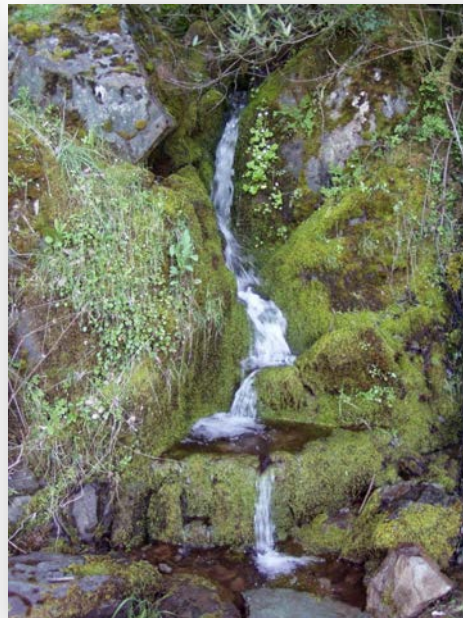


[illegible]



What is a watershed?

- Area of land where all water under it or on it drains into a water body
- Small to large-scale watersheds
- Your home & landscape is a “mini” watershed





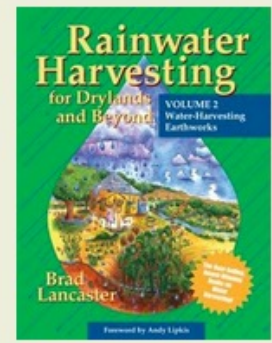
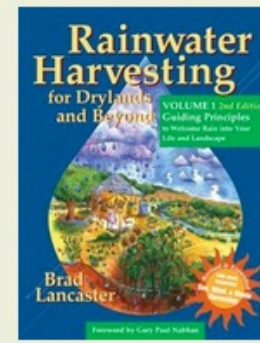
Four Principles

1. Select local native & climate-appropriate plants
2. Group plants by water needs (hydrozoning)
3. Design & install high-efficiency irrigation equipment
4. Capture & use rainwater as a resource





Your Watershed Waste vs. Abundance



Dehydrated site - Rain & runoff drains away from property & into storm drains



Hydrated site - Rainwater is captured or soaks into soil

Diagrams Courtesy: Brad Lancaster

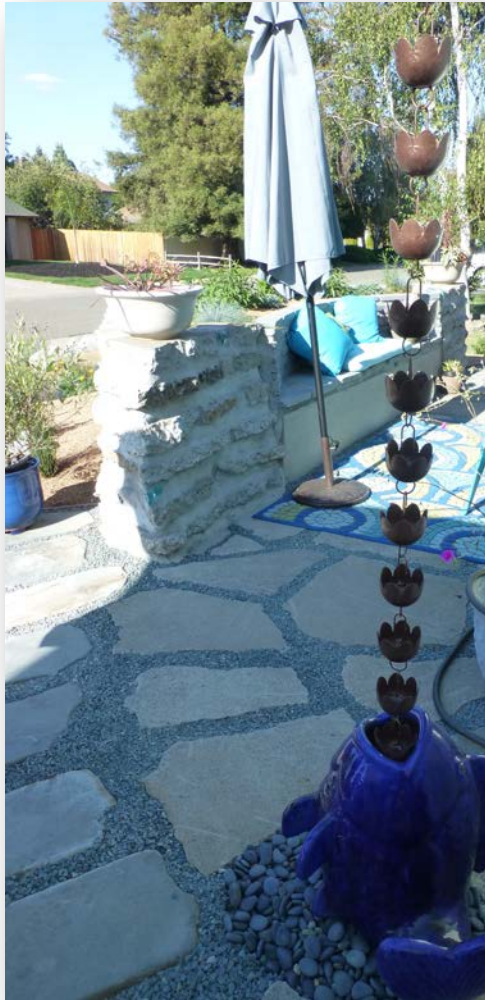


Capture That Rain for Your Garden

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



Slow it Direct Rainwater





Downspouts & Creekbeds





Creekbeds



Ketti Kupper
Conscious Living Landscapes



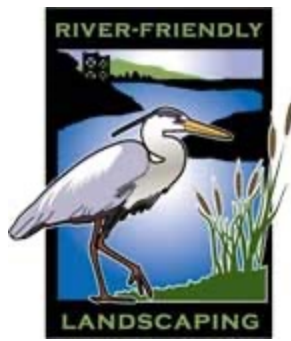
Downspouts & Drainpipe



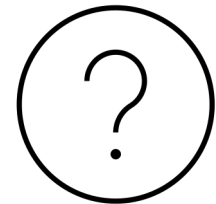
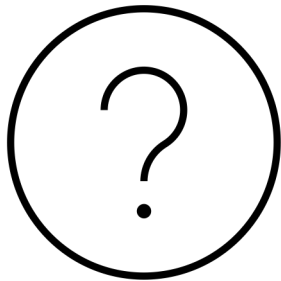


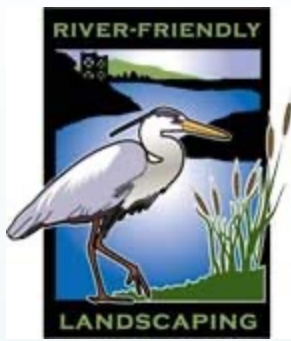
Terraces





Please Enter Questions Into the Chat





Capture That Rain for Your Garden

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



Berm n' Basin Project



Designer & Contractor
Dave Roberts



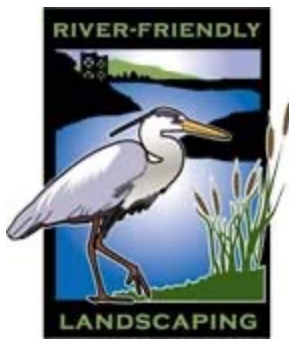


Berm n' Basin Project



Contact USA before you dig!
Call 811 or usanorth811.org





Berm n' Basin Project





Berm n' Basin Project





Swales & Contours



Before with lawn

Used
over 110,000
gallons of water
per year

3,683 Sq. Ft.

Garden on Eden Makeover
Sacramento Suburban
Water District

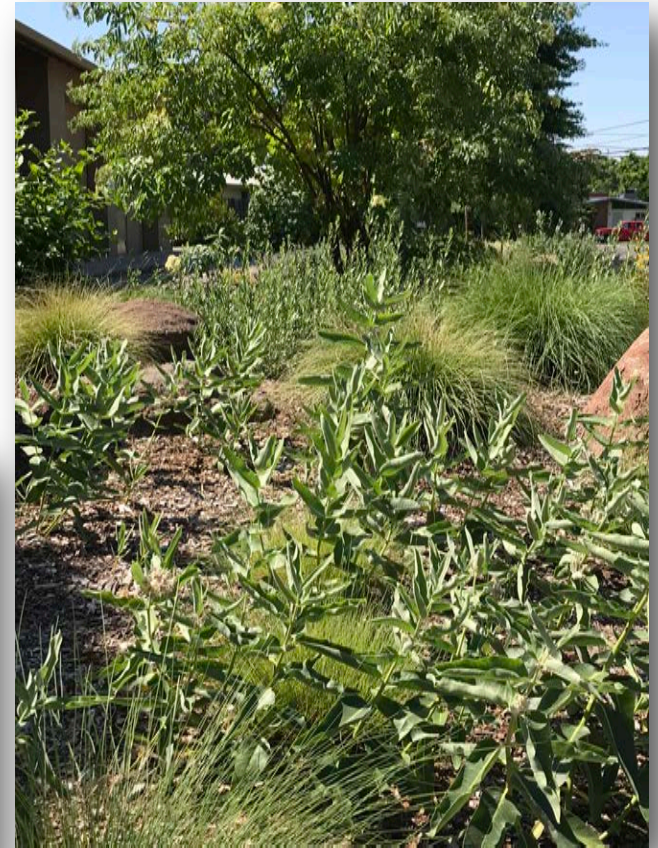
Swales & Contours



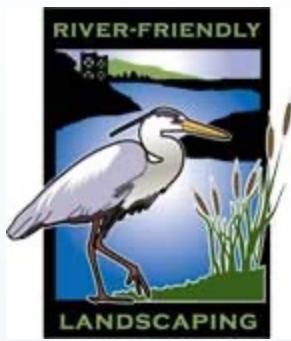
The Mature Landscape

After

Uses less than
25,000 gallons of
water per year

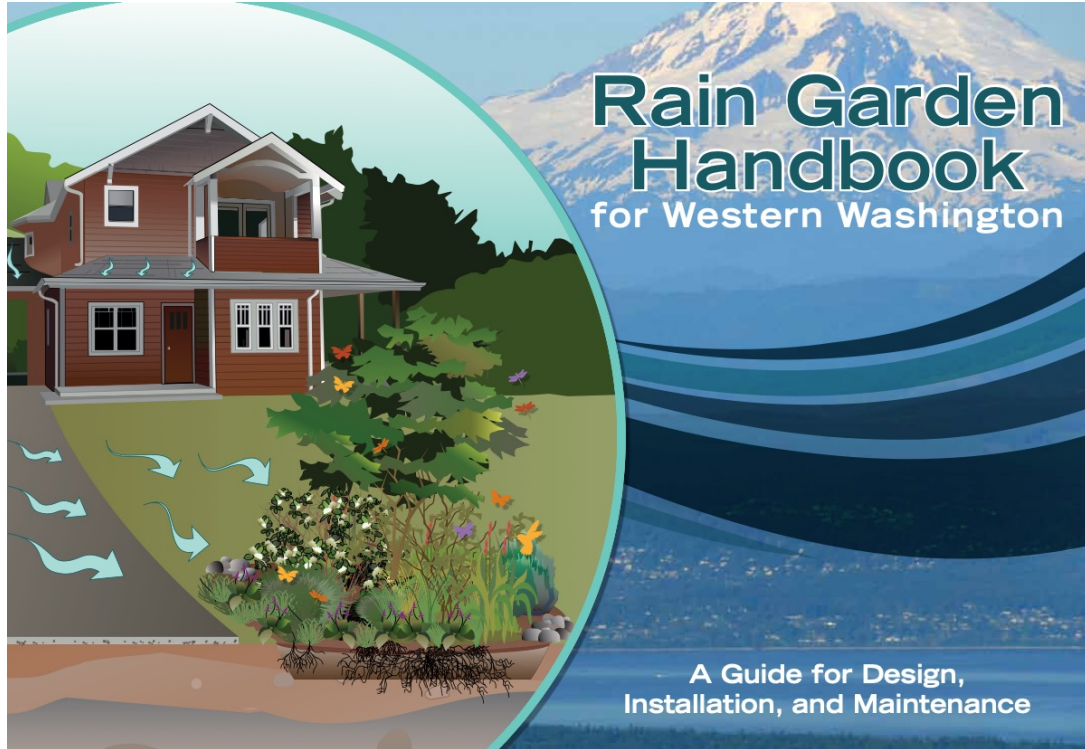






Capture That Rain for Your Garden

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



Rain Gardens

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

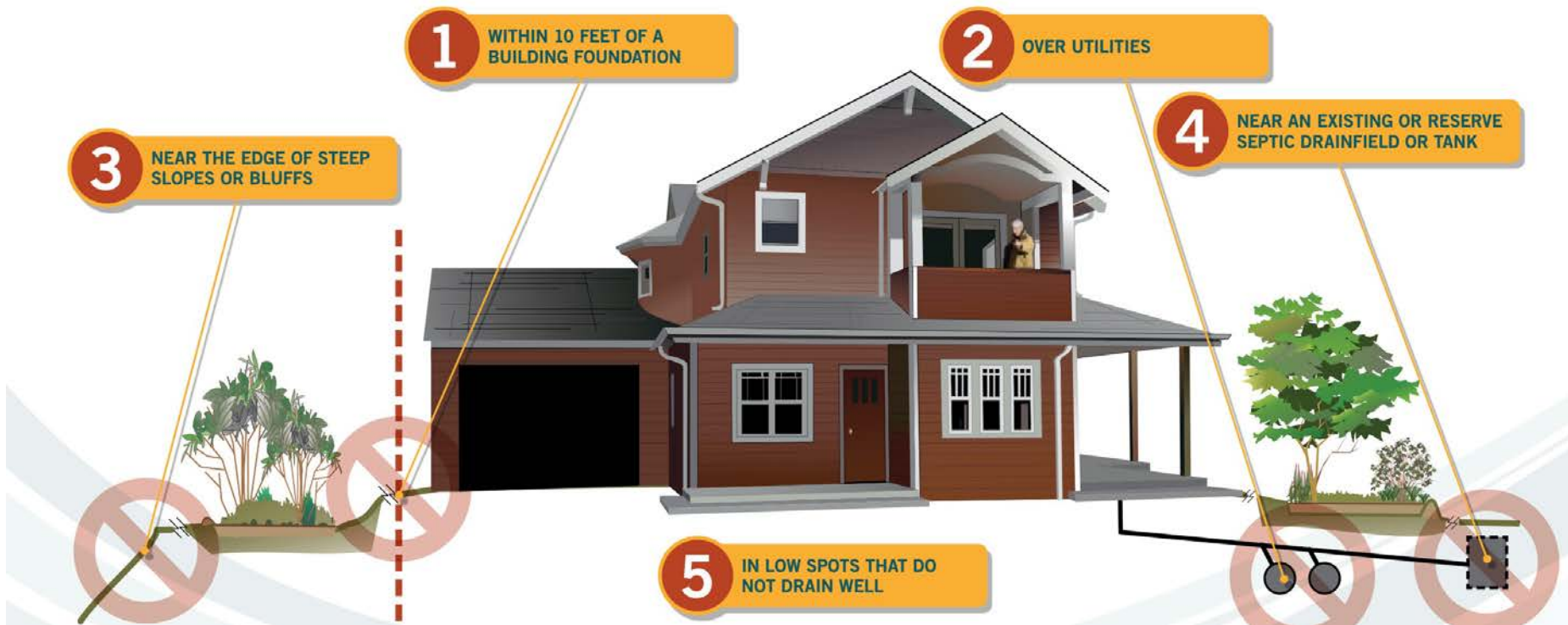


<https://fortress.wa.gov/ecy/publications/publications/1310027.pdf>

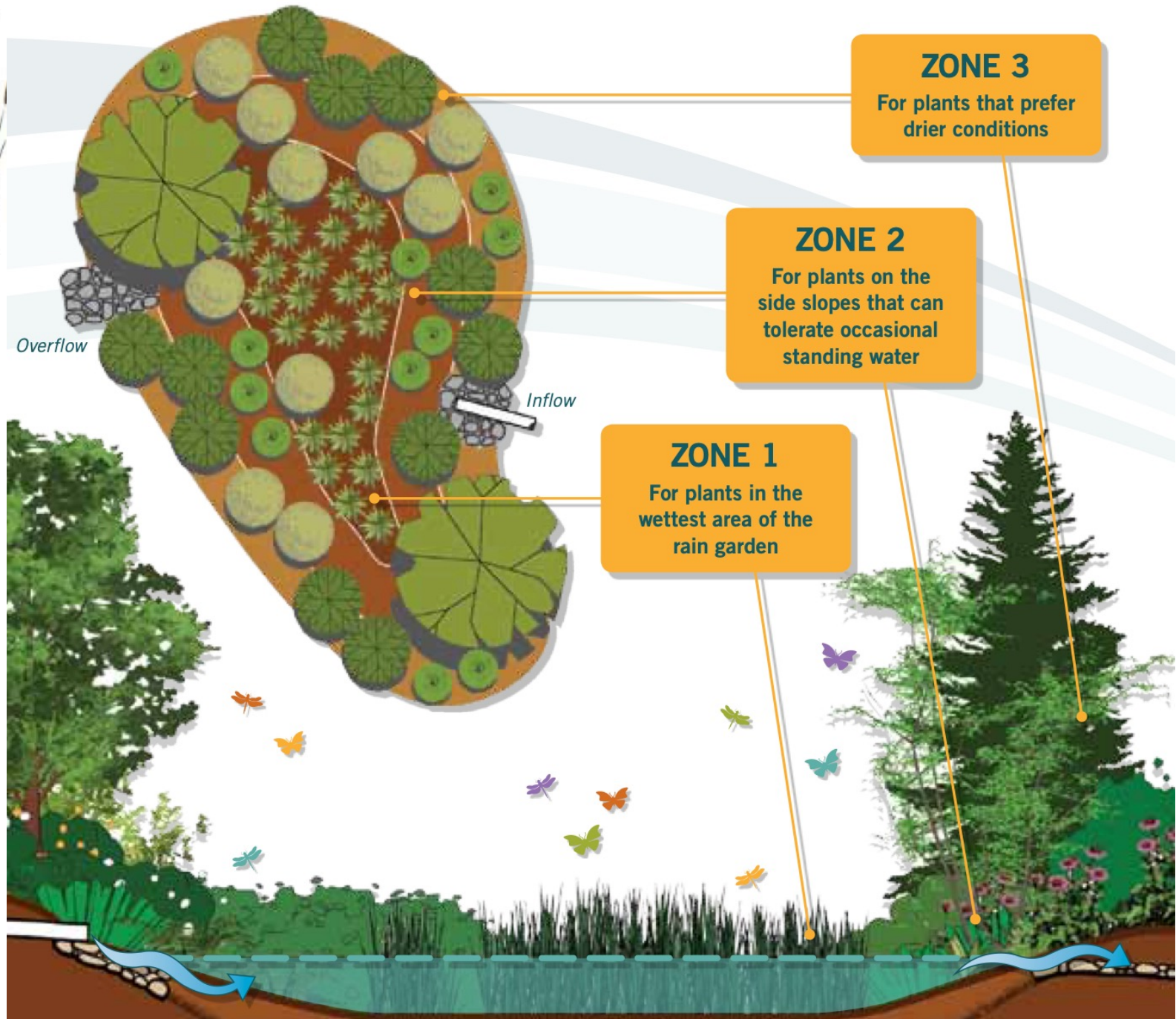
Funding for this project was provided by the Washington State Department of Ecology through the Municipal Stormwater Grants of Regional or Statewide Significance program, Grant No. GG12015. Curtis Hinman, Washington State University Extension, served as the principal author. Kitsap County managed the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



Where *NOT* to Locate a Rain Garden



Courtesy Snohomish
Conservation District



Overflow

Inflow

ZONE 3

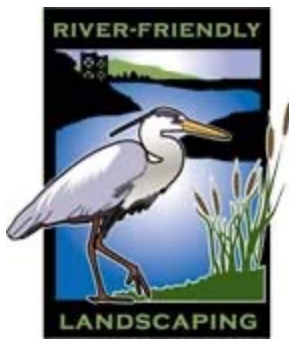
For plants that prefer drier conditions

ZONE 2

For plants on the side slopes that can tolerate occasional standing water

ZONE 1

For plants in the wettest area of the rain garden



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

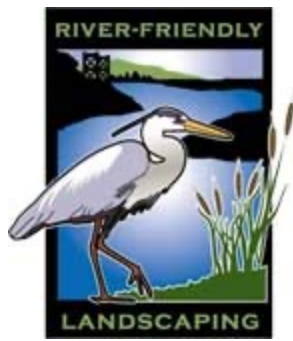
Design by Soleil Tranquilli
Tranquill Gardens



Before & After



Images Courtesy Dave Roberts



Process for a Complete Renovation



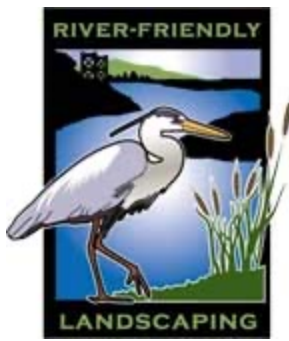
Sustain the Gains Makeover Contest
City of Roseville



Turf Replacement Project



Construction by Design-Build Contractor
Martin Carrion van Rijn
Landscape Symphonies



Swales & Creekbed

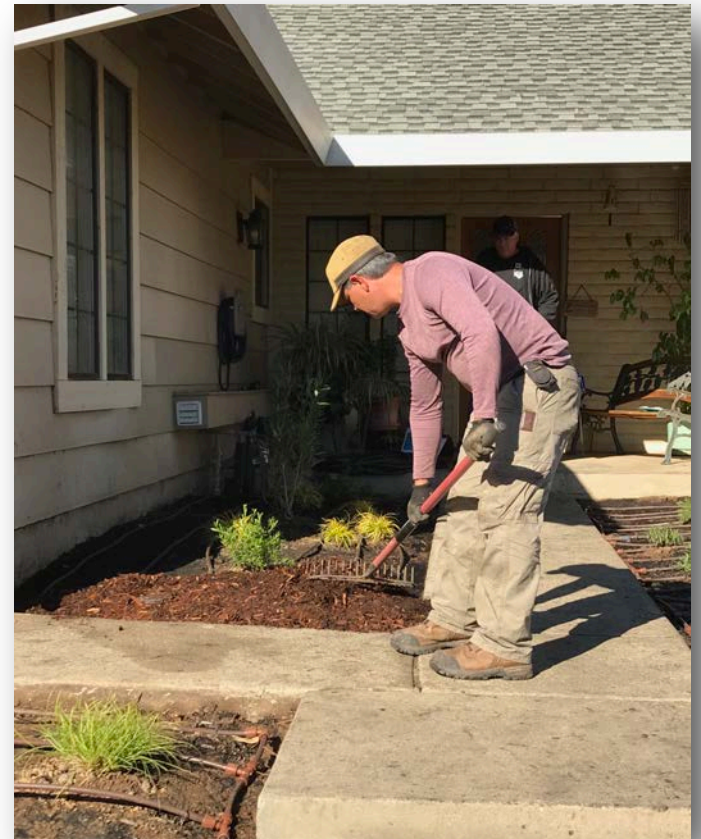


Irrigation



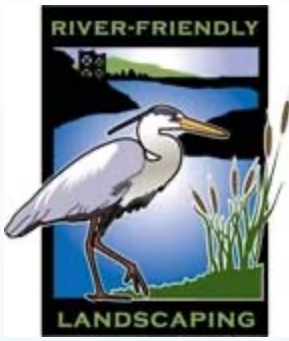


Spacing Plants, Compost & Mulch



Completed Project



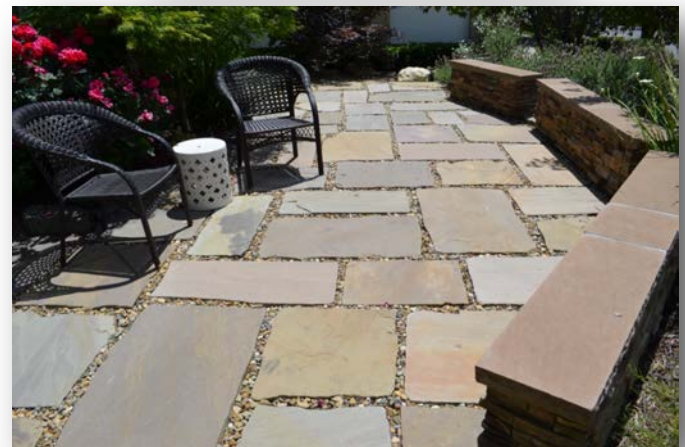


Enter Questions Into the Chat





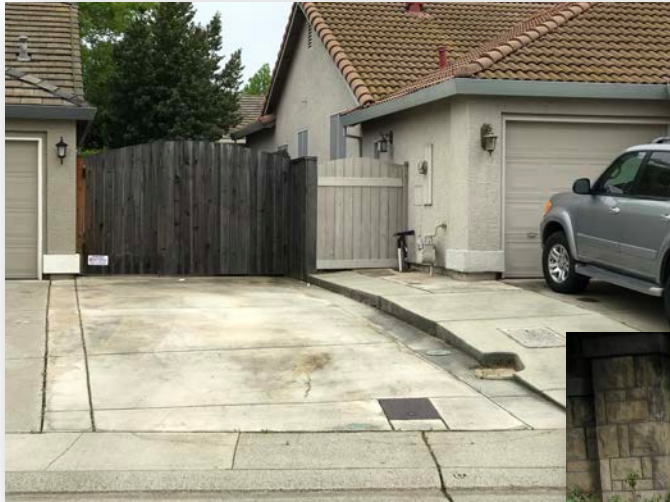
Sink It with Materials

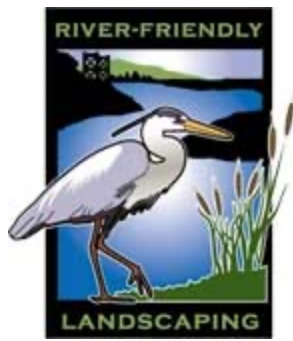




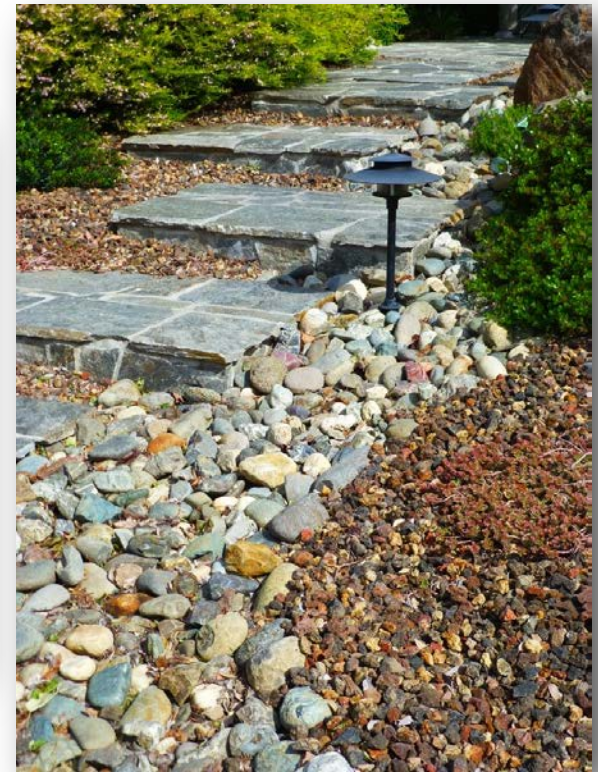
Hardscape

Reduce “Connected” Areas



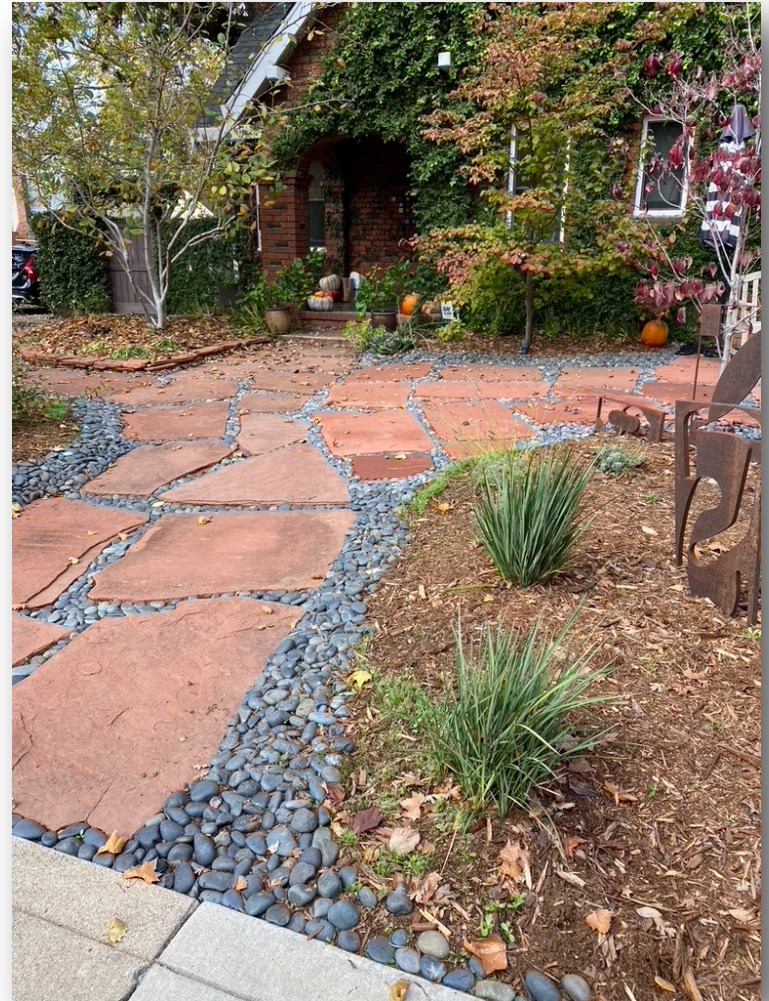


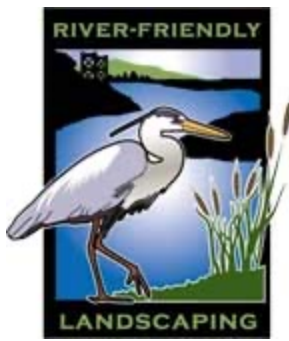
Reduce Connected Areas





Hardscape





Hardscape *Permeable Pavers*



- Rainwater **passes around** the pavers (not through)
- Provide less stormwater infiltration than porous & pervious

Photo courtesy of Reading Rock
Building Materials and Services

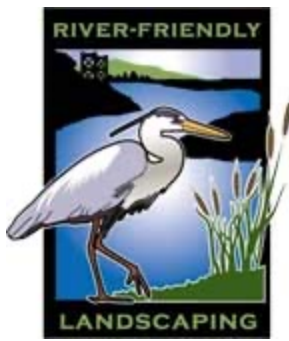


Hardscape *Porous Pavers*



- Concrete or plastic cellular grid system filled with dirt, sand, or gravel
- Material depends on surface material, traffic
- Distributes loads
- Reduces compaction, improves water infiltration – more than permeable

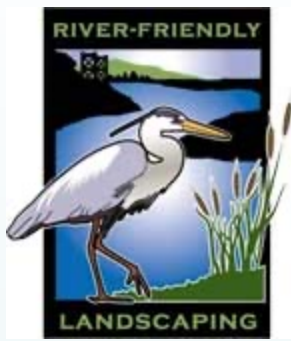
Courtesy Reading Rock Building Materials and Services



Hardscape *Pervious Pavers*



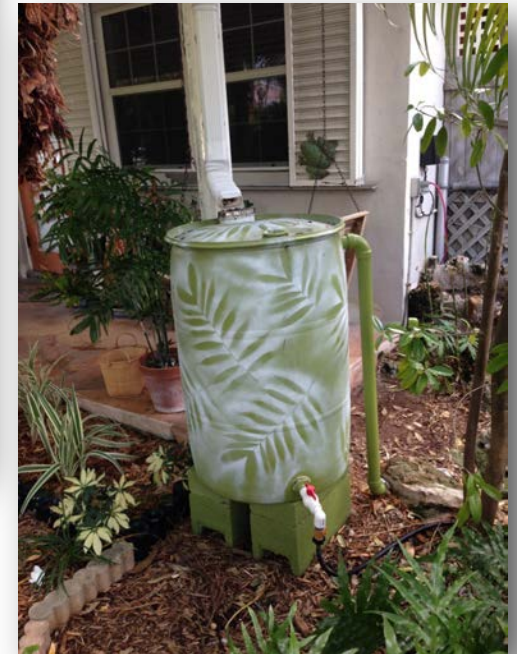
- Allow the most stormwater to percolate **through** the surface
- Material helps to filter pollutants

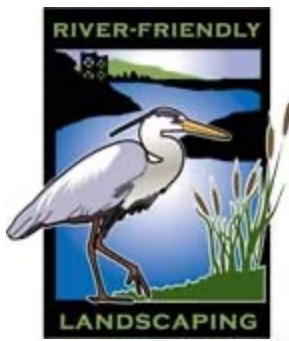


Capture That Rain for Your Garden

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

Rain Barrels





Cisterns



Wow!

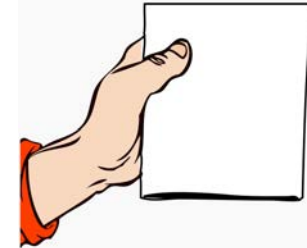


Photo courtesy San Francisco
Water, Power, Sewer





Tools & Resources



Handout

Resources

Capture That Rain for Your Garden

Citrus Heights Water District
<https://chwd.org/community/>

California Watershed Approach to Landscape Design
Association of Professional Landscape Designers,
California Water Efficiency Partnership, Surfrider
Foundation
<https://apldca.org/wp-content/uploads/2018/08/G3-APLD-CA-Watershed-Approach.pdf>

Lawn Options, Turfgrass Alternatives and
Substitutes Resource List
Regional Water Authority BeWaterSmart
<https://bewatersmart.info/lawn-options/>

CalScape Native - Plant Database
California Native Plant Society (CNPS)
<https://calscape.org>

Municipal Water District of Orange County
(MWD OC)
OC Friendly Landscapes



Resources



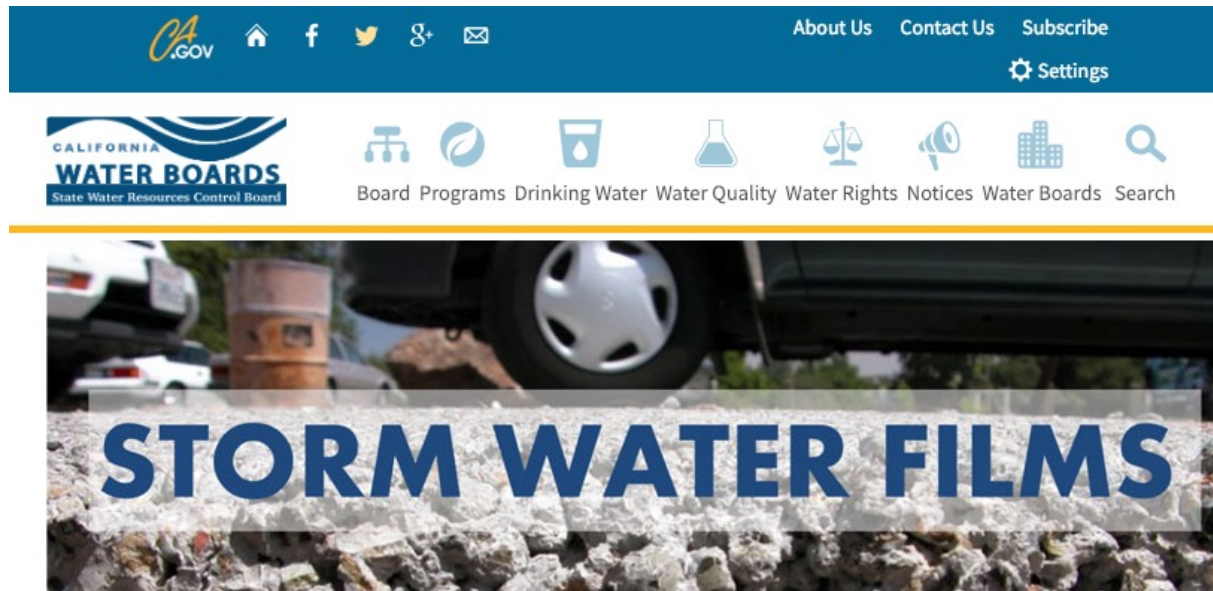
Runoff Water and Garden Design

A University of California Research Project



Storm Water Videos

- California Water Boards, waterboards.ca.gov/stormfilm/
 - Series of videos
 - Documentary “Slow the Flow – Make Your Landscape Act Like a Sponge” (near bottom of the page) & Others!





Take Action Now

- The reality
 - Droughts are cyclical
 - Dramatic changes in weather
 - Not a matter of “IF”, but “WHEN”
- It's in *our hands*...
 - Accept a new aesthetic
 - Begin the transition
 - Create your resilient landscape now!
- Today learned about a number of options
 - How many can you use?





Let's Chat

- Visit <https://chwd.org/community/> for
 - Recorded webinar & handout
 - To sign up for *Sprinkler Tune-up Time* on March 5th at 10 a.m., Sylvan Community Garden
- Please complete surveys



Cheryl Buckwalter
Landscape Liaisons
landscapeliaisons@gmail.com