

Saving WATER Together

Wednesday Water Workshops

Lawn Conversion



Saving WATER Together

Lawn Conversion

- Drought & Mandatory Water Waste Restrictions
- Kerry Daane Loux,
Park Planner
- Questions



Saving WATER Together

We're a Conservation Household.
How about you?

SaveDavisWater.org
Report Water Leaks: 530-757-5620

Davis Water
SAVING MORE TOGETHER

Saving WATER Together

California Drought

- September 2: City Council calls Stage 3 water shortage, enacts water restrictions
- Water Board Emergency regulations: 28% reduction
 - June 2015—February 2016 compared to 2013
- **July 2015: 32% reduction**



Saving WATER Together

Mandatory Water Waste Restrictions

- Outdoor watering only 3 days a week*
 - Odd numbered addresses:
Tuesday, Thursday and Saturday
 - Even numbered addresses:
Wednesday, Friday and Sunday
 - No outdoor watering on Monday
 - No watering between 9am – 6pm*
 - Hose with a shut off nozzle OK
 - Handheld container OK
 - No watering during and within 48 hours of rain
- *properly operating drip and soaker hoses are exempt*



Saving WATER Together

Mandatory Water Waste Restrictions

- No excessive water flow or runoff onto pavement, gutters or ditches from irrigation
- No washing off paved surfaces unless necessary for sanitation or safety
 - Hand held bucket
 - Hose with shut-off nozzle
 - Cleaning machine that recycles water
 - Low volume/high pressure water broom
- Property owners must fix leaks immediately or within 72 hours of notification by the City.
- Fountains and water features must have recirculating water



Saving WATER Together

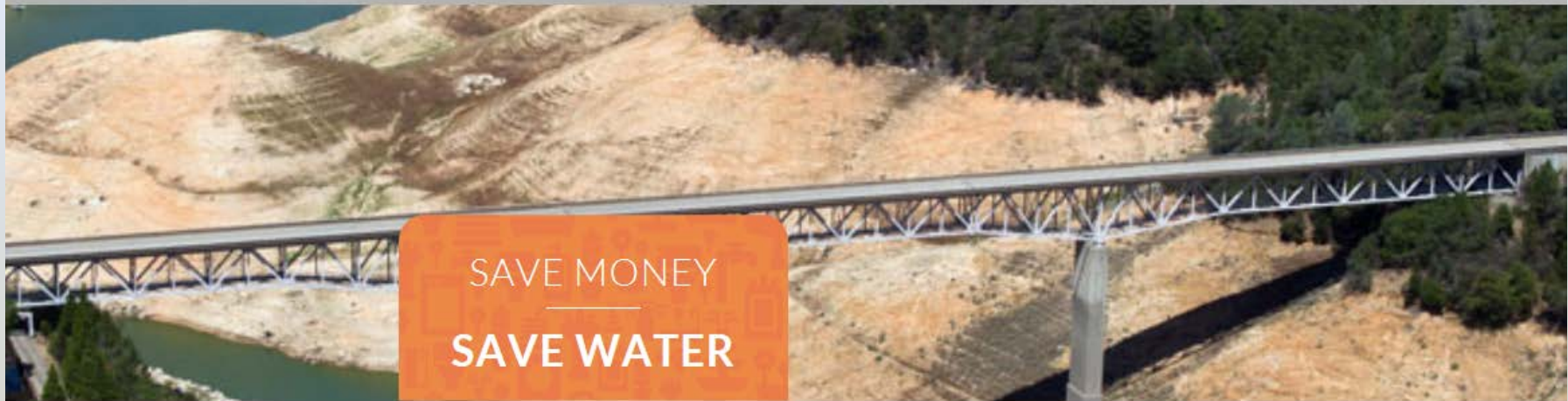
Wednesday Water Workshops

September 16

Large Scale Impacts of Drought

October (TBD)

I've Removed My Lawn...Now What?



SAVE MONEY
—
SAVE WATER


The State of California offers rebate programs for consumers that will help save water.

CLAIM YOUR
Turf Replacement
REBATE



[CLICK HERE FOR MORE INFO](#)

CLAIM YOUR
Toilet
REBATE



[CLICK HERE FOR MORE INFO](#)

TURF REPLACEMENT REBATE

Program Overview

REPLACE YOUR TURF GRASS AND RECEIVE A REBATE OF UP TO \$2,000!

The Department of Water Resources (DWR) is offering a rebate program for removing turf and replacing it with low water using landscapes at California single-family residences to support the State's drought response. For more information on the program's history, go to the DWR turf site at www.water.ca.gov/turf/.

The \$24 million program budget is expected to support the conversion of over 10 million square feet of turf, achieving approximately 20 percent of the statewide goal of replacing 50 million square feet of turf. Up to \$2 per square foot of removed and replaced turf will be rebated up to a total of \$2,000 (1,000 square feet) per household.

HOW TO GET YOUR TURF REBATE

NOTE: Please do not start your project before receiving your reservation approval.

The rebate process consists of two on-line application parts. Here is how the process works:

1. Complete the reservation application process (Part 1)
2. Receive your reservation approval notice
3. Start and complete your re-landscaping project
4. Complete the rebate application process (Part 2)
5. Receive your rebate approval notice
6. Receive your rebate check!

[SUBMIT YOUR TURF REPLACEMENT APPLICATION](#)**PROGRAM LINKS**[TURF REPLACEMENT REBATE PROGRAM OVERVIEW](#)[TURF REPLACEMENT REBATE TERMS, CONDITIONS & ELIGIBILITY](#)[HOW TO APPLY FOR YOUR TURF REPLACEMENT REBATE](#)[TURF REBATE FREQUENTLY ASKED QUESTIONS](#)

HIGH-EFFICIENCY TOILET REBATE

Program Overview

REPLACE YOUR TOILET AND RECEIVE UP TO \$100

The Department of Water Resources (DWR) is offering a rebate program for replacing toilets at California single-family residences to support the State's drought response.

The \$6 million program budget is expected to support the replacement of 60,000 toilets throughout the state. Up to \$100 will be rebated for purchase and installation of one qualified high-efficiency toilet (1.28 gallons per flush or less) per household for replacement of a less-efficient toilet (using more than 1.6 gallons per flush).

HOW TO GET YOUR TOILET REBATE

The rebate process is simple. Here is how the process works:

1. Check the website to determine if funds are still available for the program
2. Identify a qualified US Environmental Protection Agency WaterSense certified high-efficiency toilet (1.28 gallons per flush or less)
3. Purchase a toilet from the qualifying models list
4. Complete the on-line toilet rebate application
5. Receive your rebate approval notice
6. Receive your rebate check!



[SUBMIT YOUR HIGH-EFFICIENCY TOILET APPLICATION](#)

PROGRAM LINKS



[HIGH-EFFICIENCY TOILET REBATE PROGRAM OVERVIEW](#)



[HIGH-EFFICIENCY TOILET REBATE TERMS, CONDITIONS & ELIGIBILITY](#)



[CLICK HERE FOR A LIST OF QUALIFYING MODELS](#)



[HIGH-EFFICIENCY TOILET REBATE FREQUENTLY ASKED QUESTIONS](#)

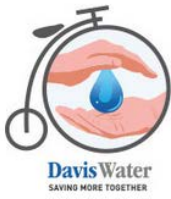
www.saveourwaterrebates.com

SaveDavisWater.org

When it comes to water conservation, let's work together to **SAVE DAVIS WATER**



HOME TIPS & WORKSHOPS WATERINSIGHT REBATES & WATER INFO PHOTO GALLERY



DAVIS WATER CONSERVATION

We are in a continued state of severe drought and no one can predict how long it will last. The City of Davis is asking everyone to work together to save for our future. While Davis is in better shape than many other cities and water providers, we still need to do our part. Check out our conservation tips and events to find out how small changes can make a big difference in our community.

WATER ALERT

Click here for more information

E-Letter Sign-up

Stay up-to-date on the latest Davis community news and events. Let's stay informed together.

Yes, please sign me up for the free Davis E-Letter!

Easily reduce your water use. Get savings tips specific to your household.

Find out how with

WATER INSIGHT



Saving WATER Together



We're a Conservation Household. How about you?



SaveDavisWater.org
Report Water Leaks: 530-757-5620

Davis Water
SAVING MORE TOGETHER

Free Yard Signs!

Report leaks and water waste:

WaterSmart@CityofDavis.org

(530) 757-5620

SaveDavisWater.org



LAWN CONVERSION

City of Davis

Wednesday Water Workshop

August 12, 2015



presented by

Kerry Daane Loux

City of Davis Park Planner

Community Services Department, Parks Division

LEED AP, California Landscape Architect #2039



LAWN CONVERSION

- Introduction
- Why consider lawn removal?
- Project planning – Say so long to lawn!
- Techniques and Tips
- Design ideas and sources for
drought tolerant, eco-friendly and
low maintenance options

INTRODUCTION

28% Mandatory Water Restrictions
Maximum 3 days/week Irrigation



<http://stopwaste.org>

Yes to Good Uses for Lawn Areas!



City of Davis website

Community Spaces



Active Recreation



Creeping Red Fescue: <http://www.stoverseed.com>

No- or low-mow lawn alternatives



<http://www.bayfriendlycoalition.org>

But maybe not needed here.

WHY REMOVE YOUR LAWN?

- Beauty & the new landscape aesthetic.
- Sustainability & environmental beliefs.
 - Water use reduction & drought tolerance.
 - Energy conservation
 - Zero-waste gardening & avoiding chemicals (minimize use of resources).
 - Low maintenance, cost effective landscapes
 - Introduce natives, grasses & wildflowers.
 - Provide food, flowers & healthy living options
- Habitat enhancement & beneficial insects.
- Significant potential cost savings



<http://www.bayfriendlycoalition.org>

Beauty & the New Landscape Aesthetic



The American Front Yard by Sarah Carolyn Sutton: <http://kissyourgrassgoodbye.com>

...embracing new styles, shapes and color in
our residential landscapes



Sustainability & Environmental Beliefs

Make a climate change difference in your own garden!



<http://stopwaste.org>

- Reduce Water Use; Create Drought Tolerance



<http://kissyourgrassgoodbye.com>

- **Conserve Energy**
Reduce lawn-based maintenance and mowing



- **‘Green Gardening’ can equal ‘Zero Waste’**
Minimize use of resources and avoid chemicals such as fertilizers, herbicides, pesticides in your landscape.



<http://stopwaste.org>

- **Low Maintenance**

Landscape mulch reduces weeds, retains moisture to decrease water use and is cost effective



- Introduce native plants, grasses and wildflowers



<http://saveourwater.com>

- **Food Production and other uses**
...provide growing spaces for fruits, vegetables and flowers and increase healthy living opportunities.



Hummingbirds and other birds



Butterflies and other beneficials

Provide Habitat Enhancement & Encourage Beneficial Insects

For the good of the earth, humans and other living creatures!



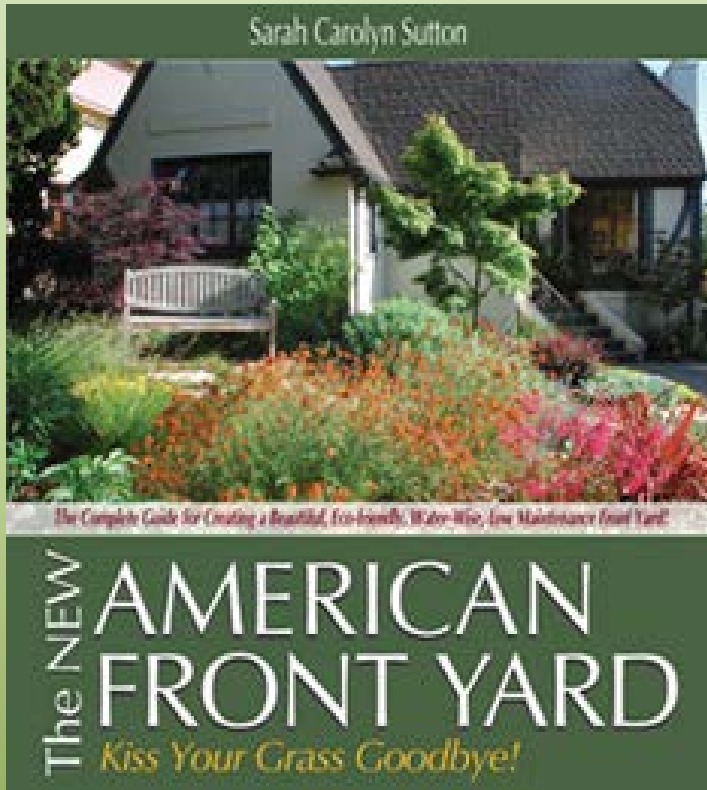
Cost Savings

Save money and look great, too!

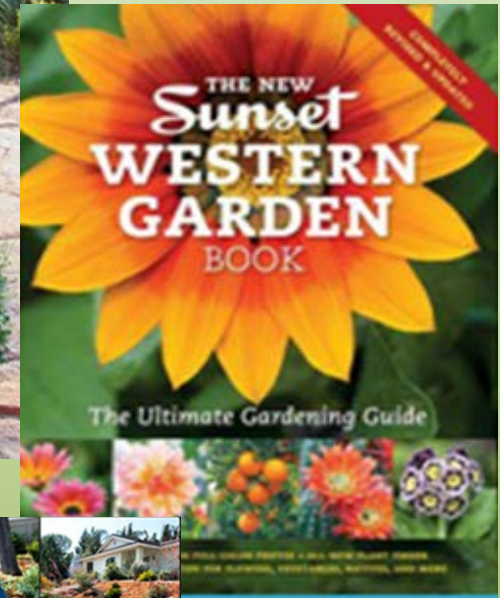
PROJECT PLANNING

Now that you're convinced, what are the steps to saying so long to your lawn?

- Create your master plan—DIY or designer?
- Think about preference, design style
- Factor in schedule, budget, phasing
- Address your turf removal approach
- Consider tree watering, maintenance needs



Sarah Sutton: <http://kissyourgrassgoodbye.com/>



Project planning books & resources

Local resources available on-line. Here are a few.



The UC Davis Center for Urban Horticulture has information on lawn conversion, groundcover substitutes, tree care during drought, LID (low impact development) design guidelines and more

<http://ccuh.ucdavis.edu/>



Check out the UC Davis Arboretum website.

<http://arboretum.ucdavis.edu/arboretum>

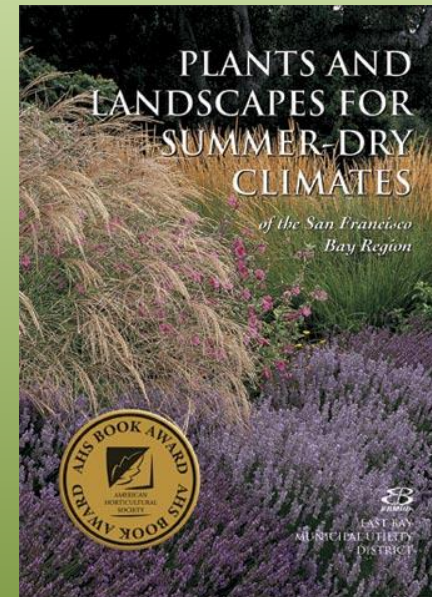
East Bay MUD Resources

<http://www.ebmud.com>



BAY-FRIENDLY LANDSCAPING

<http://www.bayfriendlycoalition.org/LYL.shtml>



TECHNIQUES AND TIPS

A number of methods and approaches to lawn removal and water conservation are available and can be used in combination or alone:

1. Turn it off—the irrigation that is. ‘Brown is the new Green’.
2. Solarization –deprive turf of water, light, etc.
3. Herbicides—best to use only for difficult grasses such as bermuda, heavy weeds
4. Sod cutting –rent machine; remove dirt, turf
5. Sheet mulching—suppress weeds and build fertile soil with ‘lasagna method’.

Remember that no matter what method you use,



5 gallon bucket method



Soaker hose method



Deep root needle method



Shower hose attachment method



Mulch around base,
especially for young trees

Tree Care is Crucial

Continue to water trees at least monthly; saturate the ground
Water in full root zone, not just at base of tree



Don Shor, Redwood Barn Nursery

METHOD 1: “Brown is the new green”

Dying lawns still need periodic maintenance for weeds and to keep up your landscape’s appearance



<http://www.ipm.ucdavis.edu>

METHOD 2: Soil Solarization

Cover turf or soil with plastic and let the sun heat it up
Use to kill seeds, weeds, soilborne pests using high temperatures.

Not typically used for residential turf removal.



<http://arboretum.ucdavis.edu>

METHOD 3: Apply Herbicide

In some cases, such as to eliminate bermuda grass or heavy weeds, applying herbicide is needed



<http://arboretum.ucdavis.edu>

UC Davis used herbicides to prepare this La Rue median for native plants and grasses.



<http://arboretum.ucdavis.edu>

Both landscape planting and wildflower sections replaced the lawn median.

La Rue Avenue Wildflower Explosion!



<http://arboretum.ucdavis.edu>





Kerry Daane Loux: Lafayette residence sheet mulching



All Star Rents and other rental companies

METHOD 4: Sod Cutting

Renting a sod cutter allows you to completely remove the turf, and have soil ready for planting immediately



Disposing of removed sod

If you choose to remove the turf, plan ahead:

- Small quantities can be placed in streetside yard waste for pickup, after first removing as much dirt as possible
- For large quantities, a bin can be rented from Davis Waste Removal (+/- \$150) for disposal
- Do not place sod in garbage cans. It's heavy!



<http://publicgarden.ucdavis.edu/staceys-lawn-removal>

METHOD 5: Sheet Mulching

Use cardboard and mulch to compost your sod in place—no removal necessary! This method is simple and environmentally sound.

Advantages of Sheet Mulching

- Pros of sheet mulching over bin composting: finished compost is in place in planting bed
- Effectively suppresses weeds due to thickness of layers and solid cover eliminating air & light
- No need to treat or remove existing lawn
- Follows permaculture principles & techniques
- Creates rich, fertile soil ready for planting—either immediately or after 3 to 6 months



<https://www.facebook.com/VillageHomesHorticulture>

Village Homes, Davis Mulching Party 2015

Take a look at their Facebook page!



One layer of cardboard goes directly over turf.
Trim edges and secure cardboard in place.



When cardboard layer is complete, spread bark mulch or other natural material (straw, composted soil)—ideally 6" or more deep, but 3" to 4" just takes a little longer to compost.



The area can be left as a mulched surface, or drought tolerant planting can either be done immediately or later in the rainy season.



Voila! Village Homes plans to plant in this area in the fall, after the sheet mulching has done it's magic.

Materials And Methods

- Sheet Mulch:
 1. Cardboard is most common; available from moving companies, appliance or bike shops. Overlap pieces; remove non-compostable tape.
 2. Newspapers, 100% cotton sheets or blankets, wool carpet can also be used.
- Soil, amendments, weed free garden trimmings, straw, manure, compost:
 1. Optional and as needed for depth and grades
- Top mulch layer:
 1. Shredded bark, leaves, straw
- Water: Moist, but not wet.

Tools and Timing

- Gloves, scissors, digging forks, wheelbarrow, etc.:
 1. Tools to move cardboard, soil and/or top mulch
 2. Stakes to hold components in place if necessary
- Seasons and Steps:
 1. Ideally, sheet mulching will be completed in the spring prior to dry season, and be 'watered in' with minimal spray during summer season
 2. Planting can wait until the fall when seasonal rains will support new plant growth.
 3. Gather all tools and materials prior to starting
 4. First water area to be mulched, then lay down overlapping cardboard, cover with soil and/or mulch. The deeper the 'lasagne' layers, the better the compost/soil decomposition, richness, fertility. Continue to keep area moist.

• Before you start, order mulch, obtain cardboard, other materials

- Measure the lawn area you're removing, i.e. for a $10' \times 20' = 200$ s.f. This is how much cardboard is needed.
- For the soil and mulch, etc. multiply by the depth of mulch in feet to get cubic feet (i.e. $6'' = 0.5' \times 200 = 100$ cu ft.
- Divide by 27 to get cubic yards (3.7 cu yds), and round up to the nearest yard = 4 cubic yards of mulch to order.



<http://publicgarden.ucdavis.edu/staceys-lawn-removal>



<http://publicgarden.ucdavis.edu/staceys-lawn-removal>



Don Shor, Redwood Barn Nursery

ADDITIONAL TIPS:

You can cover the cardboard with soil, straw, mulch or a combination.



Once you're done you can leave the area mulched only for the summer and wait to plant in the fall to save even more water.



Kerry Daane Loux: Lafayette residence sheet mulching



<http://publicgarden.ucdavis.edu/staceys-lawn-removal>

Or you can go ahead and plant your water conserving landscape.

Sources for Cardboard and Mulch

Cardboard:

- Contact businesses that you frequent regularly.
- Ask friends and neighbors if they are recycling cardboard boxes (don't remove from streetside without asking!)

Mulch:

- Contact tree companies
- Order mulch from local landscape supply business

Design Ideas and Sources





<http://saveourwater.com>

Engaging Entryways



<http://cesacramento.ucdavis.edu>

Layered planting and accents



<http://kissyourgrassgoodbye.com>

Permeable Pathways & Paving



Design Style

The American Front Yard by Sarah Carolyn Sutton: <http://kissyourgrassgoodbye.com>



The American Front Yard by Sarah Carolyn Sutton: <http://kissyourgrassgoodbye.com>

Walls, steps, fences, entry accents



The American Front Yard by Sarah Carolyn Sutton: <http://kissyourgrassgoodbye.com>

Permeable Paving Options



<https://www.ebmud.com/water-and-wastewater/water-conservation>



The American Front Yard by Sarah Carolyn Sutton: <http://kissyourgrassgoodbye.com>



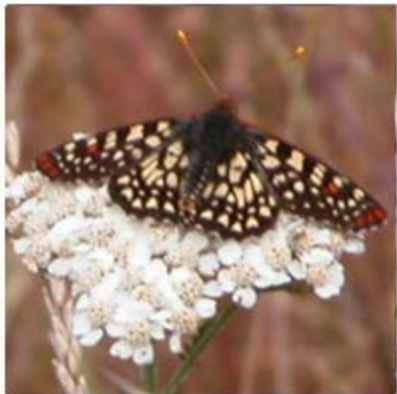
<https://www.ebmud.com/water-and-wastewater/water-conservation>

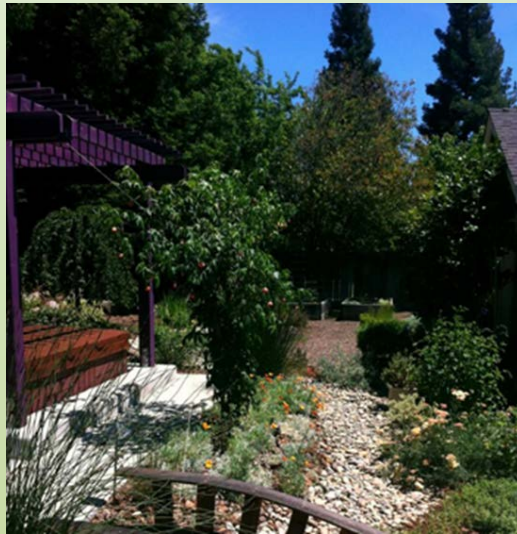


The American Front Yard by Sarah Carolyn Sutton: <http://kissyourgrassgoodbye.com>



Accents and Art





www.ebmud.com/water-and-wastewater/water-conservation/lawn-goodbye-landscape-gallery



Site furniture, patios and planting

LAWN CONVERSION



higgins@rwah2o.org: <http://cesacramento.ucdavis.edu>

Here's to a better solution!

QUESTIONS?

