

City of Palo Alto

Laundry to Landscape Graywater Resources

Laundry to Landscape Graywater rebates are available from the City of Palo Alto Utilities and Santa Clara Valley Water District (SCVWD) for residents who properly connect a clothes washer to a graywater irrigation system following rebate program and California Plumbing Code guidelines.

For more information or to schedule a pre-inspection and receive a Laundry to Landscape Graywater Rebate Program Application, please email conservation@valleywater.org or call the SCVWD Water Conservation Hotline at (408) 630-2554.

Program guidelines are available at www.valleywater.org/GraywaterRebate.aspx

GRAYWATER RESOURCES

Agency Guides

California Department of Water Resources Graywater Guide: Using Graywater in Your Home Landscape
http://www.water.ca.gov/wateruseefficiency/docs/graywater_guide_book.pdf

City of Santa Cruz Graywater Rebate Program
<http://www.cityofsantacruz.com/index.aspx?page=1402>

San Francisco Public Utilities Commission Graywater Design Manual
<http://www.sfwater.org/index.aspx?page=100>

Books and Reports

Builder's Greywater Guide: Installation of Greywater Systems in New Construction and Remodeling by Art Ludwig

Create An Oasis with Greywater by Art Ludwig

Greywater in California: Design, Managing, and Monitoring 2012 Conference Proceedings
<http://www.sierrawatershedprogressive.com/#!community-outreach>

Rainwater Harvesting for Drylands and Beyond by Brad Lancaster
<http://www.harvestingrainwater.com/>

Codes and Standards

California Plumbing Code
<http://www.iapmo.org/Pages/2013CaliforniaPlumbingCode.aspx>

Information about upcoming greywater changes from the California Building Standards Commission (CBSC)
http://www.documents.dgs.ca.gov/bsc/Newsletter/Fall%202011/GRAYWATER_Final.pdf

Laundry Products

Soap and Detergent Information

www.harvestingrainwater.com/greywater-harvesting/greywater-compatible-soaps-and-detergents/

Non-Profit Organizations

Alliance for Water Efficiency Graywater Introduction

www.allianceforwaterefficiency.org/graywater-introduction.aspx

Central Coast Greywater Alliance

<http://centralcoastgreywater.org/>

Greywater Action

<http://greywateraction.org/>

Greywater Alliance

<http://greywateralliance.org/>

Oasis Design Center

<http://www.oasisdesign.net/>

Occidental Arts and Ecology Center (OAEC) WATER Institute

<http://oaecwater.org>

Pacific Institute

<http://www.pacinst.org/>

Regenerative Design Institute

<http://www.regenerativedesign.org/commonweal>

Wholly H2O Graywater Overview

<http://www.whollyh2o.org/graywater.html>

Graywater

What is graywater?

Graywater is water from showers, bath tubs, washing machines, and bathroom sinks. It is water that contains some soap and detergents but is clean enough to water plants. Water from toilets or wash water from diapers is never considered graywater. Kitchen sink water is not considered graywater in California.

Why use graywater?

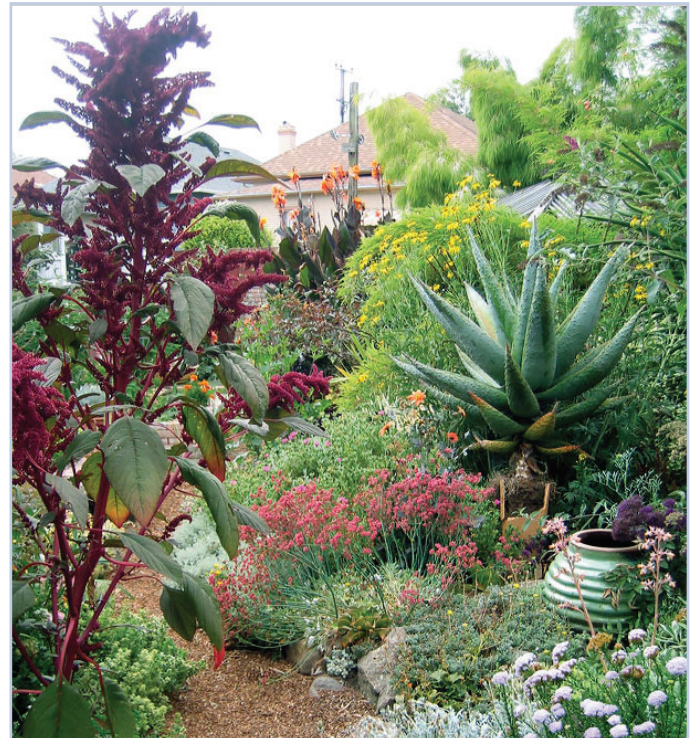
Graywater helps conserve our drinking water supply, decreases water and wastewater utility bills, decreases input to septic systems, and reduces burden on wastewater treatment facilities. Another benefit of using graywater is that it connects us to our water supply, helping us understand where our water comes from and where it goes. Becoming conscious of our water supply encourages healthier product choices and engagement with our landscapes. In concert with water conservation, climate appropriate landscaping, and rainwater harvesting, using graywater helps reduce dependency on imported water and protects the urban watershed.

Is it legal?

Yes! On July 30, 2009, the CA Department of Housing and Community Development (HCD) Codes and Standards Division and the California Building Standards Commission (CBSC) announced the adoption of the state's new graywater standards. The new standards became effective on Aug. 4, 2009. "These new graywater standards will be a big step toward reducing California's water consumption by providing cost-effective guidelines that will be beneficial to every home throughout the state," said Director Lynn L. Jacobs. "HCD and its staff recognize the importance of continually improving the state building codes and standards to help improve our sustainability."

Do I need a permit?

The California Plumbing Code (CPC) does not require construction permits for graywater systems that collect



Terra Nova Graywater Landscape. (Photo Credit: John Russell)

graywater only from a clothes washer, provided there are no modifications to the plumbing system and pumps are not used. However, these systems must still meet the design and construction standards found in the California Plumbing Code and some cities have additional requirements. Graywater systems collecting water from sources other than a clothes washer or those connected to the plumbing system require construction permits. Please check with your city planning or building department for information on permits required. The regulations for the design, construction and use of graywater systems can be found in Chapter 16A of the California Plumbing Code.

How can I use graywater?

You can use graywater for landscape irrigation through the use of mulch basins or drip irrigation fields to irrigate ornamental plants or trees in your yard. Graywater can be applied to the subsurface or may be released at the ground surface if at least two inches of mulch, rock, soil, or a solid shield covers the release point.

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Is it safe to use graywater?

Yes, if you follow practical guidelines for constructing, using and maintaining your graywater system. This includes designing the system to minimize contact with humans or domestic pets, allowing graywater to percolate through topsoil, and ensuring adequate separation to protect groundwater resources.

How much water can I save using graywater?

According to a 2012 report by Greywater Action in collaboration with the City of Santa Rosa and Ecology Action of Santa Cruz, graywater use in the landscape decreases potable water use by approximately 17 gallons per person per day or 14,565 gallons per household (on average), depending on the site and system design. To see the report, go to <http://greywateraction.org/content/greywater-study-0>

Can I allow my graywater to discharge to the ground surface?

Due to the potential for high levels of bacteria and viruses in graywater, graywater must be used in a way that minimizes potential human contact and does not create a nuisance. Graywater can be released to the subsurface or directly to the ground surface in a mulch basin as long as it remains covered with at least two inches of mulch, rock or soil. Ponding or surface runoff is prohibited and graywater must be contained on the site where it is generated.

Can I use graywater for other purposes such as flushing toilets?

The California Plumbing Code allows graywater to be used for flushing toilets but the graywater must be treated to meet certain water quality requirements. These systems require a permit, inspection and cross connection control so please check with your local city planning or building department for more information.

What kind of plants can I irrigate with graywater?

Graywater can be used to irrigate fruit trees, ornamental trees, shrubs, groundcover and lawns. Graywater should not be used in vegetable gardens where the food is a root crop or touches the ground surface. Be aware that soaps and detergents can contain a variety of chemicals to aid in cleaning that may be harmful to your plants. Please contact your local landscape specialist for more information.

Can I get a rebate for installing a laundry to landscape graywater system?

Yes, beginning January 1, 2014, the Santa Clara Valley Water District is offering a Laundry to Landscape rebate for sites that meet program requirements. For more information, contact the Water Conservation Hotline at (408) 630-2554 or e-mail conservation@valleywater.org to schedule a pre-inspection, and complete a Graywater Laundry to Landscape Application.



Contact us

For more information, contact the **Water Conservation Hotline** at **(408) 630-2554**, or email conservation@valleywater.org. You may also visit our website at www.valleywater.org and use our **Access Valley Water** customer request and information system. With three easy steps, you can use this service to find out the latest information or to submit questions, complaints or compliments directly to a district staff person.

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