



Reprint Courtesy of Valley Water

Getting Started with Greywater

Why send your property's water down the drain when you could reuse it to irrigate your yard instead? Many Californians are taking advantage of this simple idea and are installing greywater systems to keep their gardens green. During water shortages or droughts, greywater systems can be a reliable water supply for your plants.

Greywater is water from indoor sources that is captured and reused for irrigation. Sources of household greywater include laundry machines, bathroom faucets, showers, and bathtubs. Greywater systems cannot include any water from toilets, kitchen sinks, or dishwashers. There are three different types of greywater systems – laundry-to-landscape, simple, and complex.

Types of Greywater Systems

Laundry-to-Landscape (L2L) Systems

These greywater systems only reuse water from laundry machines. Compared to other types of greywater systems, L2L systems have the simplest and most affordable installation. You do not need a permit to install a L2L system in Livermore if the system does not alter the household plumbing and is installed on a one or two-unit residential building.

Simple & Complex Systems

These systems differ from L2L systems because they reuse water from a bathroom sink, shower, and/or bathtub. Simple greywater systems generate less than 250 gallons of irrigation water per day, while complex systems generate over 250 gallons. Simple and complex greywater systems alter the building's plumbing and can include surge tanks, filtration systems, and pumps.

Things to Consider Before Installing a Greywater System

Choose the Right Plants to Irrigate

Greywater works well for irrigating trees, shrubs, and larger perennials and annuals. Do not use greywater to irrigate edible plants if there is a chance the fruits or vegetables could come into direct contact with the greywater.

Ensure Greywater Systems are Suitable for your Property

Greywater systems can send water about 50 feet across a flat landscape, and even further downhill. Because of this, the City of Livermore does not recommend installing a greywater system if your property is within 100 feet downhill of a creek.

Upgrade your Laundry Machine First

If you do not have an Energy Star-rated laundry machine, consider replacing it before installing greywater system. This will ensure your property saves as much water as possible. Both Livermore Municipal Water and Cal Water offer rebates to help residents purchase water-efficient models. To learn more about these rebates, visit your water service provider's website.

Use the Right Laundry Detergent

If you install greywater system, you will need to use "plant-friendly" liquid laundry detergent. Your detergent will need to be low in salts, biodegradable, and cannot contain boron or chlorine bleach.

Know When to Turn the Diverter Off

You may need to turn off your greywater diverter during the rainy season to prevent overwatering. Your greywater diverter must be turned off when washing laundry loads containing cloth diapers or similarly soiled/infectious garments.

HOW DO I INSTALL A GREYWATER SYSTEM?

Installing L2L Systems in Residential Homes

STEP 1: Decide if you are going to Self-Install or Hire a Professional

Installing a laundry-to-landscape (L2L) system is a suitable do-it-yourself project for people with basic construction skills. Bay Area-based Greywater Action offers workshops and online resources focused on designing and installing L2L systems. Visit www.greywateraction.org to learn more.

Whether you are designing the system yourself or hiring a professional, your system must meet the guidelines in California Plumbing Code 2019 CPC Chapter 15 and Livermore Municipal Code (LMC) 13.25.170 be code-compliant.

STEP 2: Make Sure your Project Does Not Require Permits

You do not need any permits if you are installing a L2L system that meets all these requirements:

- Is installed in a one or two-unit residential building
- Only collects water from a laundry machine
- Does not have a pump or tank
- Does not alter the building's existing plumbing (the drainage plumbing does not need to be cut into to access the greywater)

If your planned greywater system does not meet one of these requirements, follow the steps for installing non-residential L2L greywater systems instead.

STEP 3: Install your Greywater System

STEP 4: Apply for a Rebate

If you receive your water service from Livermore Municipal Water, you can apply for a \$100 rebate to help reimburse the cost of purchasing L2L system supplies. Visit www.livermoreca.gov/rebates to learn more.

Installing Simple, Complex, or Non-Residential L2L Greywater Systems

STEP 1: Hire a Professional

Property owners are encouraged to contact the City of Livermore Building Division early in the design process if they are interested in installing simple or complex greywater systems, or a laundry-to-landscape system (L2L) in a non-residential building or multi-family complex.

These types of greywater systems must be designed and installed by qualified professionals. The system must meet the guidelines in California Plumbing Code 2019 CPC Chapter 15 and Livermore Municipal Code (LMC) 13.25.170 be code-compliant.

STEP 2: Submit Permits

The City of Livermore requires plumbing permits for greywater systems where any of the following applies:

- Are installed buildings that are not one or two-unit residential buildings
- Collect water from showers, bathroom faucets, or bathtubs
- Alter the building's existing plumbing (the drainage plumbing needs to be cut into to access the greywater)

If the greywater system design includes a pump or tank, an electrical permit is also required.

STEP 3: Install your Greywater System After Receiving Permit Approval

STEP 4: Schedule an Inspection After Construction is Complete

Questions about Permits or Installation?

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