



# RESIDENTIAL GRAY WATER - CLOTHES WASHER SYSTEMS

THESE REQUIREMENTS APPLY TO BUILDING PERMITS SUBMITTED ON OR AFTER JANUARY 1, 2023

A plumbing permit is not required for gray water Clothes Washer System, however all design and code requirements in the California Plumbing Code are required to be met. Permits are required for systems that include tanks or pumps.

Following is a listing of the general requirements for gray water Clothes Washer Systems based on the 2022 California Plumbing Code and the Sunnyvale Municipal Code. This brochure is intended to provide general information, contact the Building Safety Division for additional information.

## How a Clothes Washer System Works

Gray water systems directly reuse “waste water” to irrigate outdoor landscaping. A Clothes Washer System diverts gray water from the washing machine to an outdoor landscaped area without cutting into existing plumbing lines/piping. Washing machines have internal pumps which can be used to pump water directly out to the outdoor landscaped area. It is recommended that detergents or bleach that may be harmful to landscaping not be used in the clothes washer.

## Clothes Washer System Installation and Operation

A permit is not required for a Clothes Washer System that does not include a potable water connection, a pump (other than the washing machine itself), or affect other building components (i.e. plumbing, electrical, mechanical, etc.). Although a permit is not required, the following installation and operational standards outlined below are required to be met. Proper system design, maintenance and use are the responsibility of the system owner.

### Installation Standards

1. The washing machine discharge hose shall be attached to a diverter valve that allows the user to direct the flow to either the irrigation/disposal field or to the building sewer. The direction control of the gray water shall be clearly labeled and readily accessible to the user. (CPC 1503.2)
2. Gray water piping shall be provided to carry the gray water out to the yard. Gray water shall be directed to and contained within an irrigation, mulch basin, or disposal field. A mulch basin with two inches of cover is the simplest system for distribution and irrigation. Once outside the building, the discharge must drain directly to the disposal field. (CPC 1503.1)
3. The point of discharge shall be a minimum of ten feet from a property line. (CPC 1101.6.5)
4. Piping at five foot increments shall be permanently labeled: “CAUTION: NONPOTABLE WATER, DO NOT DRINK”. (CPC 601.3.3(1))
5. Gray water cannot be used on the edible portions of vegetables and can only be used for sub-surface irrigation in order to reduce human contact or ponding. (CPC 1503.2)
6. The deepest irrigation or disposal point of the proposed gray water system shall not extend within five vertical feet of groundwater. (SMC 16.24.030)

### Operational Standards

7. The gray water shall be contained on the site where it is generated. (CPC 1503.4)
8. All gray water must be used the same day it was produced and cannot be stored. Ponding or runoff is prohibited, and shall be considered a nuisance. (CPC 1503.8)
9. Gray water systems shall be designed to minimize contact with humans and domestic pets. (CPC

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1503.1)

10. Water used to wash diapers or similarly soiled or infectious garments shall not be used and shall be diverted to the building sewer. (CPC 1503.1)
11. Gray water shall not contain hazardous chemicals derived from activities such as cleaning car parts, washing greasy or oily rags or disposing of waste solution from home photo labs or similar hobbyist or home occupational activities. (CPC 1503.1)
12. Exemption from construction permit requirements of this code shall not be deemed to grant authorization for any gray water system to be installed in a manner that violates other provisions of this code or any other laws or ordinances of the City of Sunnyvale. (CPC 1503.1)
13. All systems shall have a maintenance manual. The manual is to remain with the building throughout the life of the system and indicate that upon change of ownership or occupancy, the new owner or tenant shall be notified that the structure contains a gray water system. (CPC 1503.1)