



Gray Water Systems

Submittal & Inspection

City of Saratoga
13777 Fruitvale Avenue
Saratoga CA 95070
408-868-1201

CLOTHES WASHER SYSTEM

- **Simple laundry to landscape systems with a discharge capacity of less than 250 gallon per day does not require a permit.**

SUBMITTALS: Complex System

- **The City of Saratoga requires a Permit, Drawings and Specifications and a Percolation and Mantle test prior to the construction, installation, or alteration of any Gray water System. The plans and specifications shall conform to the provisions set forth in the *California Plumbing Code (CPC) CHAPTER 16, 16A.***
- **Definition:** Gray water is untreated household waste water which has not come into contact with toilet waste. Gray water includes used water from bathtubs, showers, bathroom wash basins, and water from clothes washing machines and laundry tubs. **It shall not include waste water from kitchen sinks or dishwashers or toilets.** *CPC 209*
- Installations shall be allowed in single family and multi-family dwellings. The system shall have no connection to any potable water system and **shall not result in any surfacing of the gray water.** *CPC 1602.2.2.1*
- The type of system shall be determined on the basis of location, soil type, and **groundwater level**, and shall be designed to accept all gray water. *CPC 1602.10.2*
- No gray water system, or part thereof, shall be located on any lot other than the lot which is the site of the building or structure which discharges the gray water. *CPC*
- No gray water system or part thereof shall be located at any point having less than the minimum distance/clearance of 10' from property line, 5' from water service and 50' from streams & lakes *CPC TABLE 1602.4*
- No excavation for an irrigation/disposal field shall extend within five (5) vertical feet of the highest known seasonal groundwater; or to a depth where gray water may contaminate the groundwater or ocean water. **The applicant shall supply evidence of groundwater depth to the satisfaction of the City of Saratoga.** *CPC 1602.10.3*

MAXIMUM ABSORPTION CAPACITY

- No graywater system shall be permitted if the **percolation** test shows the absorption capacity of the soil is *unable to accommodate the intended discharge of proposed graywater system. See Table 1602.10 CPC 1602.10.2*

INSPECTION

- Verify that all requirements for systems have been noted on plans**

- Location of piping and tank corresponds with approved plans.
- Location of leach field to property line, waste piping, etc
- Percolation test has been completed and documented by soils engineer.
- Soils engineer report required for soil formations and groundwater levels. *CPC 1602*
System components shall be properly identified as to manufacturer.
- All grey water piping shall be marked or have a continuous tape marked with the words "DANGER- UNSAFE WATER." *CPC 1602.12*
- Each holding tank shall have its rated capacity permanently marked on the unit and a sign stating "GRAY WATER IRRIGATION SYSTEM,DANGER-UNSAFE WATER" *CPC 1602.12*
- Holding tanks shall be installed on level concrete slab 3" above grade and anchored against overturning.
- If underground, Holding tanks shall be installed on dry, level, well-compacted soil.
- Holding tanks shall be filled with water to the overflow line prior to and during inspection with all seams and joints to be left exposed.
- A flow test though the system to the point of gray water discharge. All lines to be water tight.
- A reduced pressure principle backflow preventer assembly (RP)** is required when a graywater system is installed *CPC 602.3*. Specify and identify the location of the RP on plans. Once the loop is closed with the installation of the RP the code (CPC 608.3) requires the installation of expansion tank(s) on all water heaters/ boilers. See "[Backflow Prevention](#)" guidelines for all general requirements.
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FOR ADDITIONAL REQUIERMENTS

SEE ATTACHED CODE SECTIONS

- Holding tanks construction per *CPC 1602.9.1*
- Valves and piping per *CPC 1604.9*
- Location of grey water system per *Table 1602.4*

SEE ATTACHED ILLUSTRATIONS OF GRAY WATER SYSTEM TANKS

- Gravity *CPC figure 16-1*
- Pumped *CPC figure 16-2*
- Multiple *CPC figure 16-3*
- Underground-pumped *CPC figure 16-4*
- Typical irrigation layout *CPC figure 16-5*