



COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

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BUILDING PERMIT APPLICATION REQUIREMENTS FOR RESIDENTIAL GRAYWATER¹ IRRIGATION SYSTEMS

Step 1: Determine if your project requires a permit per the California Plumbing Code (CPC) Chapter 15 Section 1502.0.

- Clothes washer² connected to subterranean landscape irrigation do not require a permit for installation. CPC 1502.1.1. However, CPC requires that all graywater irrigation systems meet the minimum requirements of CPC chapter 15 even when a permit is not required. [Installation video: http://oasisdesign.net/greywater/laundry/#video](http://oasisdesign.net/greywater/laundry/#video)
- All other residential gray water systems require a permit to install. These systems are defined as Simple – less than 250 gallons of graywater a day or Complex – more than 250 gallons of graywater per day. CPC 1502.1.2 & CPC 1502.1.3.

When a permit is required all of the following steps shall be followed:

Step 2: A Zoning prescreen is required to determine lot legality. If acceptable property use is confirmed, an application to the Building Department follows.

Step 3: The Building Counter will review the application for completeness and route two complete sets of plans to Building Plan Check. Projects on private sewage disposal systems (septic) require Environmental Health clearance, see Step 4.

Construction drawings are necessary to obtain a building permit for a residential graywater irrigation system. Only complete applications that include construction drawings and other required documents will be accepted for review.

Required Documents:

- **COVER PAGE:**

- Detailed vicinity map with major roads, cross streets, bridges, geographic features such as creeks, ocean, etc.
- Project information to include the project address, Assessor's parcel number, project description and occupancy group.
- List names of owner, architect and/or engineer.
- List current applicable construction codes.
- Abbreviations & Symbols.
- Sheet Index.

- **SITE PLAN (may be combined with cover page):**

- Assessor's parcel number.
- Small vicinity map.
- Scale 1" = 10 feet, 1" = 20 feet, 1/16" = 1 foot or other appropriate scale.
- North arrow.
- Entire property shown with dimensions of boundaries.
- Show existing and proposed structures with uses noted, topographic contours within 10' vicinity of improvements (buildings, swimming pools, driveways, domestic irrigation systems (functional or abandoned), septic system and expansion area, etc.).
- Slopes to include contour intervals of 2 feet. Call out any slopes greater than 30 percent* in the area of the irrigation field. If parcel is flat, label "parcel is flat". Topographic contour plan may be required to be prepared by a licensed land surveyor.

- ❑ Streams and drainage courses, water bodies, water supplies and the distance to the proposed irrigation system drain field.
- ❑ Indicate soils type. Soils information to design the graywater irrigation may be obtained through the County's GIS system at <http://www.co.santa-cruz.ca.us/default.aspx?tabid=93> . The parcel number of the subject property will be necessary to acquire the information.
- ❑ Show all recorded easements.
- ❑ Show existing or proposed cuts or embankments with slopes greater than 30%*.
- ❑ Indicate minimum and maximum groundwater depth and date of measurement. In areas with documented seasonal high groundwater levels, graywater systems may be prohibited or required to suspend use during rainy season.

* Graywater proposals with greater than 50% slope will be prohibited.

- **FLOOR PLAN (one for each floor with plumbing fixtures, including basement as applicable)**

- ❑ Scale 1/4" = 1 foot. North arrow.
- ❑ Use of each room. (See current bedroom definition). County Code 13.10.700B. eg Bedroom, Bathroom, ect.
- ❑ Indicate type and number of plumbing fixtures to be draining to Graywater System.

- **DETAILS**

- ❑ Scale 1/2" = 1 foot or 1" = 1 foot.
- ❑ Indicate size of proposed pipes, tubes, emitters, etc. for irrigation field.
- ❑ Provide total area (sq. ft.) of proposed irrigation field. CPC 1502.10.1
- ❑ Detail connections and indicate size at tanks (gal), pumps, valves, splitters, clean-outs, backflow prevention, air gap separation, etc.
- ❑ Detail proposed method of irrigation (mulch basins, emitters, etc.).
- ❑ Provide list of products for the specified use, such as valves and pumps.
- ❑ Provide calculations of estimated graywater discharge. CPC 1502.8
- ❑ Provide maximum absorption capacity. CPC 1502.10.2
- ❑ Provide Operation and Maintenance Manual. CPC 1501.6

An unlicensed person shall demonstrate competency to design alternate water systems and may prepare plans for one and two family dwellings, accessory buildings and their systems that meet the provisions of the California construction codes and do not require engineering.

Step 4: Projects on private sewage disposal systems (septic) will need to verify that graywater irrigation fields are a minimum of 4 feet from sewage disposal field and 5 feet from septic tanks. Building plan check will require that applicants provide a clearance form from Environmental Health. Environmental Health Services Department from 8:00am-9:30am only, 3rd floor, room 312, or by phone 454-2022.

- Once the clearance form has been obtained, return this form with the permit application to the Building Counter to complete the plan review submittal.

Step 5: Installation and Inspection:

Inspections will be performed Building Inspection, typical two inspections are required.

- The Building Departments will inspect all plumbing inside and/or under the house, in addition to all pipes, tanks, pumps, irrigation fields, etc. outside of the house.
- Rough inspection is required after the gray water plumbing and irrigation system has been installed but not buried. Systems shall be tested in the presence of the inspector for water tightness CPC 712.0 and proper installation CPC 309.0.
- Final inspection will be made after the project is complete.
- Contact building inspection at 454-2077 or on line <http://www.sccoplanning.com/PlanningHome/BuildingSafety/Inspections/ScheduleaBuildingInspection.aspx> 24-hours in advance to schedule a final inspection.

1. Graywater includes waste water from bathtubs, showers, washbasins, clothes washers and laundry tubs, but does not include wastewater from kitchen sinks, dishwashers, toilets or bidets. CPC 209.0

2. Graywater from clothes washers that are used to launder diapers, infectious garments or other prohibited contents shall be diverted by the user to the building sewer. CPC 1502.1 (B)