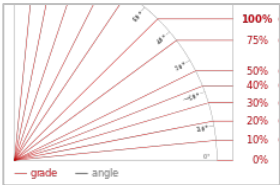


Submittal Information for a Graywater Irrigation System

1. Project Information

Building Permit Number:	Assessor's Parcel Number (APN):
Project Address:	
Applicant/Property Owner Name:	Designer/Contractor Contact Name:
Phone Number:	Phone Number:
Email:	Email:
Occupancy Type: (choose one) <input type="checkbox"/> Single Family Residential (<i>one-two dwellings</i>) <input type="checkbox"/> Multi Family Residential (<i>>two dwellings</i>) <input type="checkbox"/> Commercial # of daily occupants: _____	
Description of Project:	
Graywater Source: (indicate the type and number of fixture(s) to be diverted to graywater irrigation) <input type="checkbox"/> Shower(s) # _____ <input type="checkbox"/> Clothes Washer(s) # _____ <input type="checkbox"/> Lavatory (bathroom sink) # _____ <input type="checkbox"/> Other: _____ # _____	
Check All That Apply: <input type="checkbox"/> Yes <input type="checkbox"/> No This property is served by municipal water/sewer <input type="checkbox"/> Yes <input type="checkbox"/> No This property contains a well <input type="checkbox"/> Yes <input type="checkbox"/> No This property contains an onsite wastewater treatment system <input type="checkbox"/> Yes <input type="checkbox"/> No This property has high groundwater within 3' of the soil surface. <input type="checkbox"/> Yes <input type="checkbox"/> No Does the system design include a surge tank or storage of graywater? * <i>If Yes,</i> <ul style="list-style-type: none"> Attach specifications that describe how the storage tank will automatically empty every 24 hours. Attach specifications showing how graywater overflow will be piped to sewer/septic by gravity. <i>*Note: Storage tanks are not recommended. Best management practice is to direct graywater immediately to irrigation field.</i>	
Topography of Area to be Irrigated with Graywater: <input type="checkbox"/> Flat <input type="checkbox"/> Slightly sloped <input type="checkbox"/> More than 30% slope	

I certify that I have read and understand the California Plumbing Code requirements for graywater irrigation systems. I understand that if there is a complaint investigation that verifies a violation of the applicable standards, then the property owner will be subject to cost recovery and any fines resulting from the investigation (Calif. Health & Safety Code Section 510).

Applicant Signature: _____ Date: _____

Printed Name: _____

Submittal Information for a Graywater Irrigation System

2. Estimated Daily Graywater Production – Residential Only *(Attach Calculations for Commercial Projects)*

Calculation Method *(choose one)*

CPC estimate

of potential occupants: _____ *(Assign 2 occupants to master bedroom and 1 occupant to each additional bedroom)*

Laundry: _____ occupants x 15 gallons/day _____ gal/day

Shower/sink: _____ occupants x 25 gallons/day _____ gal/day

TOTAL _____ **gal/day**

Estimate of graywater produced from winter (Dec-Feb) water use records *(attach utility bill)*

Laundry: Avg. water use per month ÷ 30 days _____ (gallons/day) x 0.22 _____ gal/day

Shower: Avg. water use per month ÷ 30 days _____ (gallons/day) x 0.17 _____ gal/day

Sink: Avg. water use per month ÷ 30 days _____ (gallons/day) x 0.03 _____ gal/day

TOTAL _____ **gal/day**

3. Graywater Irrigation Field Area

Minimum Required Irrigation Field Area:

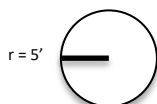
_____ (gal/day) ÷ _____ gal/ft²/day = _____ ft²
From Section 2 Maximum Absorption Capacity* **Minimum Required Irrigation Field Area**

**Use the table below to find the maximum absorption capacity of your soil*

DESIGN OF SIX TYPICAL SOILS TYPE OF SOIL	MINIMUM SQUARE FEET OF IRRIGATION/LEACHING AREA PER 100 GALLONS OF ESTIMATED GRAY WATER DISCHARGE PER DAY	MAXIMUM ABSORPTION CAPACITY IN GALLONS PER SQUARE FOOT OF IRRIGATION/LEACHING AREA FOR A 24-HOUR PERIOD
Coarse sand or gravel	20	5.0
Fine sand	25	4.0
Sandy loam	40	2.5
Sandy clay	60	1.7
Clay with considerable sand or gravel	90	1.1
Clay with small amounts of sand or gravel	120	0.8

Total Actual Irrigation Field Area: _____ ft²

Example: Irrigation field area of trees and large shrubs can be quantified as circles using the formula $3.14 \times r^2$



$$3.14 \times 5^2 = 78.5\text{ft}^2$$

Submittal Information for a Graywater Irrigation System

4. Graywater Irrigation Method *(Select and complete all that apply to the project)*

<input type="checkbox"/> Gravity to Mulch Basins (Branched Drain) Total mulch basin surge capacity: _____ gal/day ÷ 7.48 gal/ft ³ ÷ 0.80 = _____ ft ³ <i>From Section 2</i>
<input type="checkbox"/> Effluent Pump to Mulch Basins Make and model of effluent pump (attach specifications): _____ Total mulch basin surge capacity: _____ gal/day ÷ 7.48 gal/ft ³ ÷ 0.80 = _____ ft ³ <i>From Section 2</i>
<input type="checkbox"/> Drip Irrigation System Drip emitter flow rate: _____ gal/hour Total number of drip emitters: _____ Make and model of pump/filtration system (attach specifications): _____ Make and model of backflow prevention device (attach specifications): _____
<input type="checkbox"/> Constructed Wetland (1-day retention time) Total capacity: _____ gal/day ÷ 7.48 gal/ft ³ ÷ 0.25 = _____ ft ³ <i>From Section 2</i>

5. Graywater Irrigation Plan

Using the attached graph paper (or your own), draw a map and legend of graywater system components that shows the pathway of piping from the fixture(s) inside the building to the landscape/irrigation field. If graywater is directed to the front yard, show the street frontage and your driveway. In your drawing, include the location of all:

- Graywater valves
- Graywater pipes and fittings
(indicate material and size)
- Clean-outs
- Pumps and surge tanks *(if applicable)*
- Graywater outlets and mulch basins
- Backflow prevention *(drip irrigation only)*
- Setback of graywater outlets to property lines and buildings*
- Setback of graywater outlets to onsite wastewater treatment system tanks and leachfields* *(if applicable)*.
- Setback of graywater outlets to wells and drainages* *(if applicable)*.

*See table below for required setbacks. See the California Plumbing Code for additional notes about setbacks.

CPC Table 1602.4 - LOCATION OF GRAY WATER SYSTEM

MINIMUM HORIZONTAL DISTANCE IN CLEAR REQUIRED FROM	SURGE TANK (feet)	SUBSURFACE AND SUBSOIL IRRIGATION FIELD AND MULCH BASIN (feet)	DISPOSAL FIELD
Building structures	5	2	5
Property line adjoining private property	5	1.5	5
Water supply wells	50	100	100
Streams and lakes	50	100	100
Sewage pits or cesspools	5	5	5
Sewage disposal field	5	4	4
Septic tank	0	5	5
On-site domestic water service line	5	5	0
Pressurized public water main	10	10	10



Submittal Information for a Graywater Irrigation System

GRAYWATER IRRIGATION FIELD PLAN Scale = _____" = _____'

APN # _____ **Address:** _____

A large, empty grid area intended for the Graywater Irrigation Field Plan. The grid consists of approximately 30 columns and 40 rows of small squares.

LEGEND:

Example Graywater Irrigation Plan

