

**WAC 246-274-410 Design requirements—General—Tier 2 and Tier 3 greywater irrigation systems.** (1) Tier 2 and Tier 3 greywater irrigation systems must be designed by a qualified professional, except:

(a) The local health officer may allow a resident owner of a single-family residence, not adjacent to a marine shoreline, to design a system for his or her residence when the system reuses no more than three hundred gallons per day of greywater; or

(b) The local health officer may design the system if he or she performs the soil and site evaluation.

(2) The person designing a Tier 2 or Tier 3 system must use the following criteria when developing the design:

(a) Storage and pump tanks must be:

(i) Constructed of solid, durable materials not subject to excessive corrosion or decay;

(ii) Water-tight;

(iii) Tamper proof and not susceptible to intrusion by humans or vectors;

(iv) Installed below ground on dry, level, well compacted soil or above ground on level, stable footing;

(v) Anchored to prevent overturning;

(vi) Provided with an overflow pipe with a diameter at least equal to that of the inlet pipe diameter that flows by gravity to the approved public sewer system or on-site sewage system with a check valve or backwater valve, as appropriate, that prevents backflow from sewer or septic tank; and

(vii) Provided with a drain pipe and a vent pipe.

(b) The operating capacity must be based on the estimated flows of greywater diverted from the approved public sewer or on-site sewage system.

(i) The total flow available may be estimated using the flow from each fixture multiplied by the number of people using the fixtures. The flow from each fixture is based on design flow of the fixture.

(ii) If the fixture's design flow is unknown, the following standards must be used:

Laundry:	Water conserving washing machine - 8 gallons per person per day
	Traditional washing machine - 11 gallons per person per day
	Laundry sink - 3 gallons per person per day
Bathroom:	Water conserving sink - 5.4 gallons per person per day
	Water conserving shower - 10 gallons per person per day
	Traditional sink - 6 gallons per person per day
	Traditional shower - 17 gallons per person per day
Bathtub:	24 gallons per bath
Kitchen sink:	6 gallons per person per day
Dishwasher:	1 gallon per person per day

(c) If the building is served by an on-site sewage system with design flows of less than three thousand five hundred gallons per day, the total flow of greywater diverted must not adversely affect the functioning of the on-site sewage system.

(d) The sensitivity of the site where the greywater irrigation system will be installed must be considered.

(i) Examples of sensitive sites include shellfish growing areas, designated swimming areas, designated wellhead protection areas for

Group A public water systems, areas in which aquifers used for potable water as designated under the Growth Management Act, chapter 36.70A RCW, are critically impacted by recharge, and other areas identified by the local management plan required in WAC 246-272A-0015, where fecal coliform constituents or other greywater constituents can result in public health or water quality concerns.

(ii) When the greywater irrigation system will be installed in an area that is not covered by a local management plan required in WAC 246-272A-0015, examples of sensitive sites include similar types of areas where greywater constituents can result in public health or water quality concerns.

(e) For greywater irrigation systems conveying greywater from a nonresidential source, documentation must be provided that:

(i) Shows the greywater consists only of domestic type flows and does not include any other type flows; and

(ii) Identifies how chemicals and other hazardous materials will be kept out of the greywater.

(3) The person designing the system shall ensure that the owner is provided with the record information required under WAC 246-274-200 (1) (i) and 246-274-300 (3) (h).

[Statutory Authority: RCW 90.46.015. WSR 11-02-011, § 246-274-410, filed 12/28/10, effective 7/31/11.]