

Rules on graywater reuse and disposal systems

Background

On Aug. 25, 2011, the Oregon Environmental Quality Commission approved rules that create a new, statewide program for the permitting of graywater reuse and disposal systems. House Bill 2080, passed by the 2009 Oregon Legislature, required the development and adoption of these rules.



Graywater refers to wastewater collected from showers, baths, kitchen sinks, and laundries.

What is graywater and how can it be used?

Under Oregon law, graywater refers to shower and bath wastewater, bathroom sink wastewater, kitchen sink wastewater and laundry wastewater. Graywater does not include toilet or garbage wastes or wastewater contaminated by soiled diapers.

Graywater can be contaminated with organic matter, suspended solids, or potentially pathogenic microorganisms. However, if used as described in the new rules, graywater can be safely reused for a number of different purposes, such as irrigating certain trees and plants, and providing moisture for compost. Reuse of graywater reduces the demand on other sources of water, such as potable water, surface water and groundwater.

Oregon's rules recognize three different "types" of graywater, based on graywater quality. Higher-quality graywater can be used in more ways than lower-quality graywater.

- **Type 1 graywater** is graywater that is untreated or has passed through a physical process to remove solids, fats, oils and grease. Type 1 graywater is

the lowest quality and may be used only for subsurface irrigation.

- **Type 2 graywater** is treated by a chemical or biological process to reduce total suspended solids and organic matter concentrations. Because this type of graywater is stabilized through treatment, it may be used for drip irrigation and in landscape ponds.
- **Type 3 graywater** is treated to Type 2 standards and disinfected to reduce bacteria and other potential pathogens. Because of its high level of treatment, Type 3 graywater is suitable for additional uses, such as sprinkler irrigation and dust control.

What is a graywater reuse and disposal system?

A graywater reuse and disposal system is any existing or proposed graywater collection and distribution system equipped with a diversion device, i.e., valve, that can direct graywater between beneficial reuse and disposal.

A property owner seeking to construct, install or operate a graywater reuse and disposal system must obtain a permit from the Oregon Department of Environmental Quality.

How can I obtain a permit?

Permit applications will be available on DEQ's website; however, DEQ will not begin accepting applications for graywater reuse and disposal systems until spring 2012. Because this is a new program, DEQ needs time to develop outreach materials, write permits, and provide information to external stakeholder groups.

Under the new program, a person wanting to use graywater will choose between three different permits, depending on which permit best meets particular needs:

- **Tier 1 general permit (2401).** A Tier 1 general permit will be available for single-family residences and duplexes that generate less than 300 gallons per day of Type 1 graywater and use it solely for subsurface irrigation of landscape plants or compost. A person will fill out the permit application, pay \$90 (\$50 new-permit application fee



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and \$40 annual fee), and agree to follow the permit's conditions. If the system owner submits an annual report to DEQ, the \$40 annual fee will be waived most years.

- **Tier 2 general permit (2402).** This general permit will be available for any structure that generates less than 1,200 gallons of Type 1 or Type 2 graywater per day. A person will fill out a new-permit application, pay \$584 (\$534 new-application fee and \$50 annual fee), and submit required documentation to DEQ for review. DEQ will review the documentation and notify the applicant if coverage under the Tier 2 permit is granted.
- **Tier 3 individual permit.** DEQ will issue an individual permit for any system ineligible for coverage under a Tier 1 or Tier 2 general permit as well as to anyone not wanting coverage under a general permit. Applying for a Tier 3 permit requires a new-permit application, the submission of fees and documentation, and possibly a Land Use Compatibility statement. DEQ will review the material and develop a permit with site-specific conditions. Tier 3 permits are subject to a 30-day public comment period. The cost of an individual permit will vary based on the size and complexity of the graywater reuse and disposal system. The new-permit application fee ranges between \$613 and \$3,948, and the annual compliance fee ranges between \$341 and \$817 for this permit.

What can I do to prepare for a graywater reuse and disposal system permit?

The rules require all graywater reuse and disposal systems to be designed. Property owners can decide how they plan to use graywater and develop a system design plan, which must include the following information, at a minimum:

- Location of the system
- Intended use or uses of the graywater
- Design flow of the graywater reuse and disposal system
- Fixtures that are the source of graywater
- Design of the distribution and reuse system
- Description of any graywater treatment used
- Name and contact information for the system designer

Tier 2 and Tier 3 systems producing more than 300 gallons per day for irrigation must also include information on the irrigation system design.

Property owners can also prepare for future graywater use by installing plumbing that separates graywater flow and complies with state plumbing code.

For more information

DEQ will post updates on graywater permits and Oregon's graywater program development on its graywater website:

<http://www.deq.state.or.us/wq/reuse/graywater.htm>.



Alternative formats

Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at 503-229-5696, or call toll-free in Oregon at 1-800-452-4011, ext. 5696; fax to 503-229-6762; or email to deqinfo@deq.state.or.us

People with hearing impediments may call 711.