



HEALTH SERVICES INFOSHEET

GREYWATER REUSE

What is greywater?

Greywater is household wastewater that comes from the bath, shower, bathroom wash basins, clothes washing machine, laundry trough and kitchen sink.

Its characteristics will vary according to the number of household occupants, their age, lifestyle, health and water use patterns. Greywater will contain some faecal contamination, bacteria, parasites and viruses washed from the body and clothes. Pathogenic micro-organisms are a normal part of the gut. This means that all forms of greywater are capable of transmitting disease and therefore needs to be properly managed to minimise health risk and degradation of the environment.

What is in greywater?

Bathroom greywater can be contaminated with hair, soaps, shampoos, hair dyes, toothpaste, lint, body fats, oils and cleaning products. It also has some faecal contamination (and the associated bacteria and viruses) that comes through body washing.

Laundry greywater can have faecal contamination with associated bacteria and viruses, lint, oils, chemicals (such as sodium and boron), soaps, nutrients and other compounds.

Kitchen greywater will be contaminated with food particles, cooking oils, grease, detergents, and other cleaning products such as dishwashing powders. Kitchen greywater may not be well suited for reuse in all types of greywater systems. It should not be reused via manual bucketing.

How can I reuse greywater?

1. Bucketing

The advantage of bucketing is that it doesn't require modification to the plumbing of your home, or installation of a greywater treatment and irrigation system. The greywater can be collected directly from the bathroom and laundry, and applied to garden or lawn areas. To minimise potential health risks and environmental damage, the following guidelines should be adhered to:

- ❖ Apply greywater in several locations, to prevent pooling.
- ❖ Only bucket greywater to areas that are inaccessible to children and pets.
- ❖ Don't use greywater from the washing of nappies or soiled clothing.
- ❖ Don't use greywater when a household resident has an infectious disease.
- ❖ Don't put greywater on edible plants or fruit.
- ❖ Don't store greywater – it may turn septic.
- ❖ Don't over water. Too much greywater can clog the soil, causing pooling and the development of grey/green slime areas. This slime, caused by the presence of soaps, shampoos and grease, can cause odours, attract insects and damage the environment.



2. Install a greywater reuse system

Greywater reuse systems range from those that coarsely screen oils, greases and solids before irrigation, via small trenches, to more expensive systems that treat and disinfect the greywater via spray or drip systems.

All greywater reuse systems (this does not include bucketing) must irrigate greywater below ground, unless it is treated and disinfected to a secondary effluent standard. Irrigation of greywater below ground reduces the scope for human contact, and subsequent risk to public health.

Operation and maintenance

Once a greywater system is installed, it becomes the householder's responsibility to ensure it is operated and maintained according to the manufacturer's instructions. Some greywater systems may require weekly cleaning or replacement of filters, periodic desludging of treatment tanks, the manual diversion of greywater back to the sewer in winter, flushing of the irrigation lines, and occasional replacement of pumps.

Other issues to consider

- ❖ Only use household products with low phosphorus content. Some native plants are sensitive to additional phosphorus, particularly the Proteaceae family.
- ❖ Greywater tends to be slightly alkaline (pH 6.5-9.0). Shade and acid loving plants, including azaleas, camellias and gardenias, will not thrive on greywater.
- ❖ High levels of sodium in washing powders can produce saline greywater. Products with potassium salts or liquid concentrates are better.
- ❖ Some detergents and powder cleansers contain boron. In high concentrations, this can be toxic to plants and animals.
- ❖ Greywater must be contained, and not run into neighbouring properties.
- ❖ Avoid the use of bleaches or softeners, and detergents that contain boron, borax, chlorine, bleach, sodium perborate and sodium trypochlorite (salts).

Where can I find out more?

The '*Code of Practice for the Reuse of Greywater in Western Australia*' is available from the Department of Health website at <http://www.public.health.wa.gov.au>.

Information on the Water Corporation's Waterwise Rebate program (including a list of greywater systems approved for rebate) can be obtained from the Water Corporation website at <http://www.ourwaterfuture.com.au>.