

# Plumbing Regulation Advisory Note

Plumbing Regulation Advisory Note 03/08

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## MANUAL BUCKETING OF GREYWATER

### PURPOSE

To inform householders of the health and environmental risks associated with manual bucketing of greywater from the bathroom or laundry onto lawn and garden areas.

Surface applied untreated greywater is not recommended for long-term continued use on residential properties.

### WHAT IS GREYWATER?

Greywater is waste water generated from bathrooms (showers, baths, and hand basins), laundries (washing machines, troughs) and kitchens (sinks and dishwashers). However, kitchen water can contain food particles, grease, oils and fats and its use is not recommended without treatment.

### UNTREATED GREYWATER CHARACTERISTICS

The quality of greywater can be highly variable due to factors such as the number of household occupants, their age, lifestyle, health, water source and products used (such as soaps, shampoos, detergents).

Greywater can contain:

- Disease causing organisms (bacteria, enteric viruses, helminths and protozoan parasites);
- Chemicals from soaps, shampoos, dyes, mouthwash, toothpaste, detergents, bleaches, disinfectants and other products (such as boron, phosphorus, sodium, ammonia and other nitrogen based compounds);
- Dirt, lint, food, hair, body cells and fats, and traces of faeces, urine, and blood.

Risks presented by these contaminants can be reduced by good management practices and by sensible use.

### MANAGING HEALTH RISKS

Where manual bucketing greywater onto lawn and garden areas using water from the bathroom or laundry the following should be taken into account:

- Don't use greywater from washing clothes soiled by faeces or vomit, for example, nappies;
- Don't store untreated greywater for more than 24 hours, as bacteria and organic contaminants in greywater will cause it to turn septic and produce strong and offensive odours;
- Don't use greywater if others in the household have diarrhoea or an infectious disease, as this could increase the risk of other people becoming ill;
- Don't use greywater to water fruit, vegetables, or areas where fruit can fall to the ground and be eaten;
- Avoid splashing of greywater and ensure you wash your hands before eating or drinking;
- Keep children and pets away from areas watered with greywater until it has soaked into the ground.

## MANAGING ENVIRONMENTAL RISKS

To lessen the impact of greywater on soil and plants the following should be taken into account:

- Use shampoos, detergents and cleaning products that contain low levels of boron, phosphorus and salt. Boron can be toxic to plants; some native plants are sensitive to phosphorus while sodium and other salts can damage soil structure. A useful website that contains information on laundry products is [www.lanfaxlabs.com.au](http://www.lanfaxlabs.com.au)
- Washing machine rinse water has lower concentrations of detergents compared to wash water. Only rinse water from washing machines should be used.
- Bleaches and disinfectants can kill beneficial soil organisms and damage plants. Avoid using greywater containing harsh chemicals or bleaches, or after washing out hair dye or paint products.
- Greywater tends to be slightly alkaline and this can be harmful to acid loving plants such as azaleas and camellias.
- Rotate greywater application. Rainwater or mains water will help to flush salts from the soil.
- Prevent pooling and runoff of greywater onto other properties, into watercourses and the stormwater system. Pooled greywater can turn septic and produce offensive odours.
- Don't over-water your plants. Plants are susceptible to waterlogged soil.
- Monitor areas watered with greywater. If there is visual evidence of damage to plants or soil you need to modify watering practices, try a different or larger area, or reduce the amount of water used. Clay soils tend to be more susceptible to build up of salts and have low permeability. Extra care should be taken when using grey water in areas of clay soils to avoid long term damage.

## PERMANENT GREYWATER SYSTEMS

Permanent greywater systems such as diversion devices or treatment systems, or any device attached to plumbing, can increase the use of greywater. However, due to potential risks associated with greywater, permanent greywater diversion devices and treatment systems require authorisation under the Tasmanian Plumbing Code. To install any of these devices or systems, plumbing permits are required from your council.

Unauthorised diversion devices such as direct hose connections on washing machines and waste pipes are not permitted. Permanent diversion of untreated greywater to the surface is not permitted.

## MORE INFORMATION

For more details about greywater use, the *Plumbing Regulations 2004* and the Tasmanian Plumbing Code 2006 contact your local council; or

Workplace Standards Tasmanian Helpline:

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