



## Water Reuse

### COOLmob Information Sheet on reusing your household water



*Greywater is being used to water a fruit tree.*

#### Why Not Use Your Greywater on Your Garden?

##### What is Greywater?

Greywater (also referred to as 'sullage') is wastewater generated from bathrooms (showers, baths, spas, and hand basins), laundries (washing machines and troughs), pools and spas and kitchens (sinks and dishwashers). Because kitchen water contains food particles, grease, oils and fats it can be smelly so it's not a good idea to use it in the garden.

Greywater may contain:

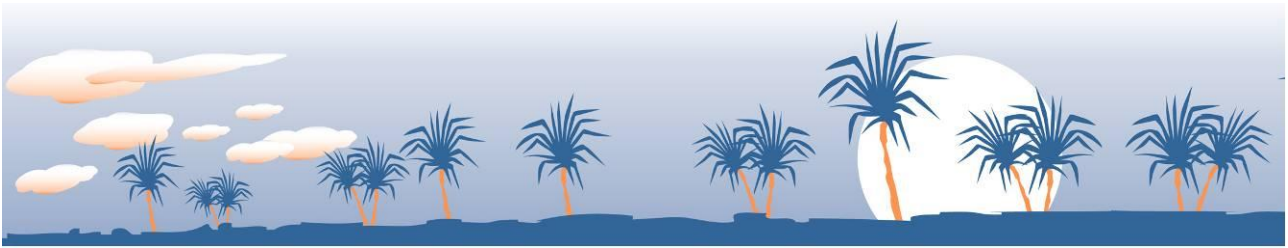
- Disease causing organisms (bacteria, viruses, protozoa) from nappies and other soiled clothing
- Chemicals from soaps, shampoos, dyes, mouthwash, toothpaste, detergents, bleaches, disinfectants and other products (such as boron phosphorous, sodium, ammonia and other nitrogen based compounds).
- Dirt, 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 of greywater.

#### Domestic Greywater Reuse

Save on your water consumption by using your bathroom or laundry water on the lawn and garden areas. This can be done bucketing, by fitting a hose to a washing machine outlet or by fitting a diverter to an outlet pipe. But remember:

- 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 offensive odours.
- Don't use greywater if other people in the household have diarrhoea or an infectious disease, as this could increase the risk of other people becoming ill.
- Keep children away from areas watered with greywater until it has soaked into the ground.



## Chemical contaminants: detergents, cleaners and other chemicals

- Greywater tends to be slightly alkaline and this can be harmful to acid loving plants such as azaleas and camellias, but bananas love it.
- Environmentally friendly shampoos, detergents and cleaning products should be used to protect soil and plants watered with greywater. Products containing low levels of boron, phosphorus and salt are recommended. Boron can be toxic to plants, some native plants are sensitive to phosphorous while sodium and other salts can damage soil structure.
- 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.



A useful website that contains information on laundry products is <http://www.lanfaxlabs.com.au/>

*Washing machine water is being diverted to the garden. Ensure U-bend is kept higher than washing machine water outlet.*

## Gravity Diversion Devices (GDD)

Grey water diversion devices (GDD) can use gravity or a pump to divert bathroom and laundry water onto your garden. A gravity diversion device has a hand activated valve switch or tap which is fitted to the outlet of the waste water pipe.



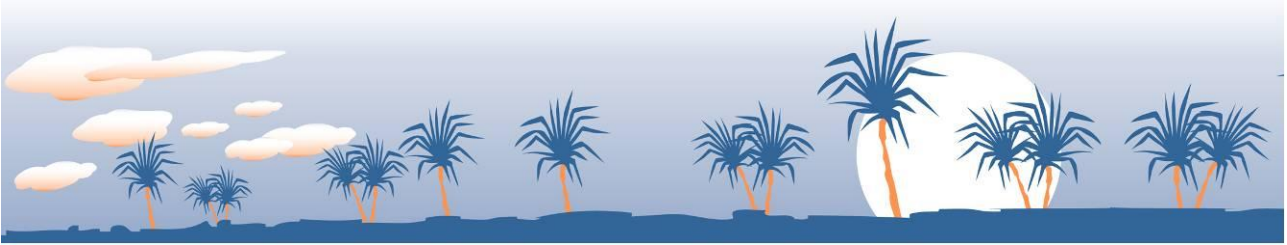
*GDD is fitted into the downpipe and switched to send water onto the garden.*

### **Pump diversion devices**

A pump diversion device incorporates a surge tank (not for storage) to cope with sudden influxes of greywater. Kitchen greywater is unsuitable for collection in a pump diversion device because it will clog the pump causing bad smells and attract vermin.

A GDD must only be used for sub-surface irrigation (no spray irrigation) and an overflow connection to sewer or septic tank must be maintained.

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### **Greywater Treatment Systems (GTS)**

A greywater treatment system collects, stores, treats and may disinfect greywater to a high standard. Greywater Treatment Systems are an alternative to GDDs and are available in the Northern Territory.

For more information of greywater systems go to

[http://www.health.nt.gov.au/Environmental\\_Health/Wastewater\\_Management/index.aspx#ProductApprovalOfanonsiteWastewaterSystem](http://www.health.nt.gov.au/Environmental_Health/Wastewater_Management/index.aspx#ProductApprovalOfanonsiteWastewaterSystem)

<http://www.savewater.com.au/how-to-save-water/in-the-home/greysmart/about-greysmart>



**Bananas feed via 16mm black poly-pipe with washing machine water**

### **Consider creating a bio trench**

A biotrench of gravel and sand (eg. 2m deep x 1.2 wide) can be constructed under the surface to capture storm water running from the property and directing it to specific areas of your garden. Biotrenches can be useful to reduce the potential for flooding during heavy tropical downpours.