



# Grey Water Recycling

## *What Are Your Options?*

With the introduction of water restrictions more and more people are looking at ways to better utilise and conserve water. One possible solution often put forward is grey water recycling.

### **What is Grey Water?**



Grey water is the liquid waste produced from the bathroom, kitchen and laundry that does not contain solid waste. Waste water that contains effluent or sewage is referred to as black water. Typically most places which are not connected to deep sewer will be connected to a combined system such as septic tanks which treat both grey and black water at the same time.

The *Health Act 1911* and the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974* sets out that all liquid wastes must undergo treatment through an approved system prior to disposal. For this reason grey water can not simply be diverted away from the septic tank or other system and onto the garden. It must undergo treatment before being discharged.

*Note water from air conditioners is not greywater, and the Department of Health has no objections to its reuse on gardens.*

### **Are There Systems to Permit the Re-Use of Grey Water?**

If a householder wants to reuse grey water on a permanent basis, then an application must be submitted to the Local Government for the installation of a waste water treatment system.

Currently there are a number of grey water systems approved by the Department of Health. These all comprise of a settling/ sedimentation tank or filter system connected to a piped sub-surface disposal system. Contact details for these systems are included in the following pages.



In addition to the installation of these grey water systems, provision for the disposal of black water must be made. This may be either through connection to sewer, or where this cannot be achieved, by the installation of a separate system designed to receive black water only.

## **Water Corporation Sewer Is Available to Me - What Are My Options?**

Under new legislation, while black water must be disposed through the sewer, grey water treatment systems may now be installed. An application must be submitted to the Shire of Kalamunda for Approval to Construct or Install an Apparatus for the treatment of this waste water. An Approval to Construct or Install a grey water system will be required to comply with Council's conditions as well as all relevant legislation. Information on the provisions of this legislation that may apply to you may be obtained from one of the Shire's Environmental Health Officers.

## **I Cannot Connect to Sewer - What Are My Options?**

If a householder wants to reuse their waste water on a permanent basis, then an application must be submitted to the Local Government for the installation of a suitable waste water treatment system.

Currently there are two options, the installation of two waste water systems comprising a grey water system and a black water system, or the installation of an Aerobic Treatment Unit.

## **Are There any Health Risks Associated with Greywater Reuse?**

Greywater can contain pathogenic microorganisms including bacteria, protozoa, viruses and parasites in concentrations high enough to present a health risk. Therefore, a level of caution must be exercised with greywater reuse. This can be achieved by not allowing unnecessary human contact with greywater, or by treating the greywater to remove or destroy the microorganisms. Greywater also contains oils, fats, detergents, soaps, nutrients, salts and particles of hair, food and lint, which can impact on operational performance and life of a greywater irrigation system.

## **What About an Aerobic Treatment Unit?**

In addition to the grey water systems there is also the option of installing an Aerobic Treatment Unit (ATU). Permitted only where connection to sewer is not possible, these are self contained waste water treatment systems designed to receive and treat all household waste water. As the effluent undergoes a final disinfection stage it can then be distributed over a designated irrigation area using either surface sprays or subsoil drippers. It is a requirement that a minimum area of 150m<sup>2</sup> be set aside as the irrigation area.

Further information on these systems may be obtained from the Shire's Environmental Health Officers.

If you have any questions regarding any of the systems above or require further information on grey water recycling please do not hesitate to call the Shire's Health Service on 9257 9999.

