National Water Week
17 - 23 October 2010

FACT SHEET - *GREYWATER*

WHAT IS GREYWATER?

In simple terms, greywater is the water that comes from the bath, shower, washbasin and laundry. It is normally moderately polluted with soap and everything that washes off clothes and people.

Blackwater is what flows from the toilet - it is heavily contaminated with faeces, urine, toilet paper and whatever else people put down the toilet.

Although water draining from the kitchen sink and dishwasher is also, strictly speaking, greywater, it is normally quite full of grease and fat, so is not included with the other greywater streams.

IS GREYWATER SAFE TO REUSE AROUND THE HOME/GARDEN?

If greywater is properly managed it can be used for garden watering, but there are several safeguards needed, and you must comply with local authority regulations.

A universal requirement is that greywater may not be stored; it must either be irrigated or treated immediately. There are various devices available from hardware stores and from plumbing supply shops, which can connect into a washing machine or into an inspection cap to pipe the greywater out to the garden. At the simplest level, of course, shower water can be collected in a bucket and taken to the garden by hand, as can bathwater.

For a more elaborate arrangement a plumber should be employed. But it is important to ensure that there is never any risk of greywater flowing off your property to a neighbour's. It's also important to note that greywater can still carry infection, especially if babies' nappies are washed, or if someone in the household is suffering from a waterborne disease.

GUIDELINES FOR USING GREYWATER

The Model Guidelines for Domestic Grey Water Reuse for Australia* define greywater as wastewater from bathtubs, showers, bathroom wash basins, washing machines and laundry tubs. It excludes untreated household sewage, wastewater from kitchen sinks, dishwashers, garbage disposal units, laundry water from soiled nappies or washwater from domestic animals. Thus further segregation of grey water complicates the plumbing alterations and household practices required for an approved recycling system. (*Source: UWRAA Report 107 available from the Australia Water Association Bookshop.)

The Model Guidelines lay down construction and operation standards intended to prevent system blockages, leaks, overflows, foul odours, over-irrigation of gardens, contamination of drinking

water and washing water, damage to the environment and general plumbing malfunctions while delivering the water to where it can be reused.

Application restrictions require that:
* Greywater cannot be used for toilet flushing
* Backflow devices must be installed to avoid contaminating mains supply
* Colour code pipework and fittings
* Install overflow to the sewer
* Maintain grey water operating pressures below mains pressure
* Avoid contact with humans and on food crops
* Avoid applying greywater where it can reach land surfaces, waterways etc
* Sign post irrigated areas RECYCLED WATER - DO NOT DRINK - AVOID CONTACT
* Absorption trenches such as those used for septic effluent must not be used
* No evapotranspiration trenches are to be used

No unapproved use be made of swimming pool and spa overflow water.

Local water authorities will require:

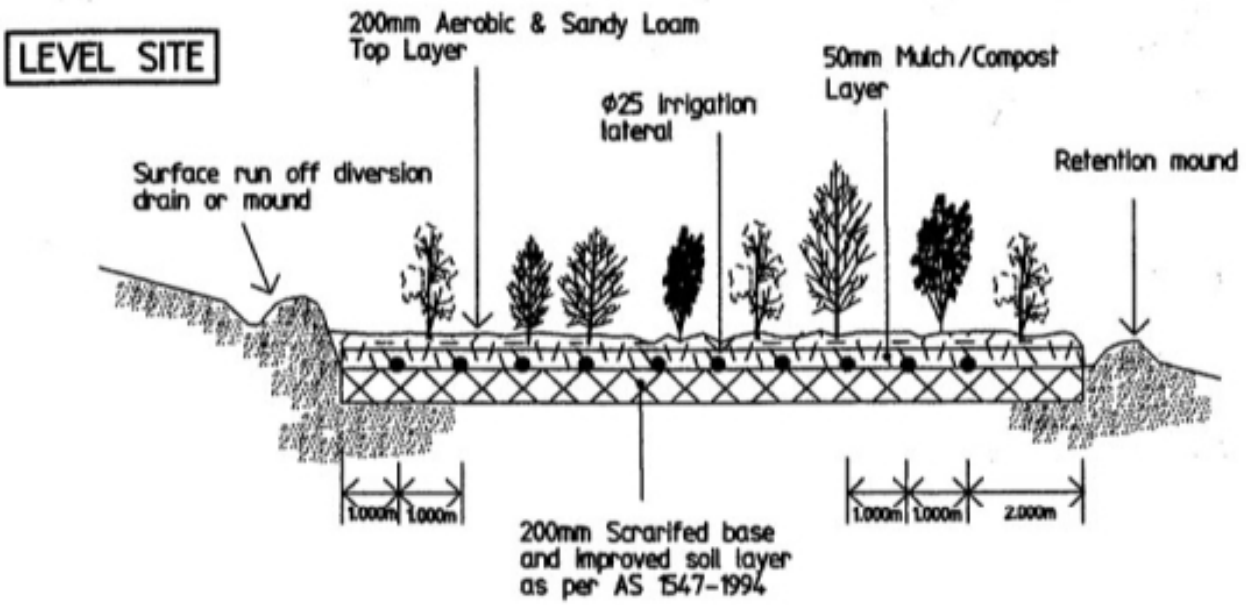
* A permit specifically to apply to the household owner as well as the house itself (new owner needs to reapply for a new permit for existing grey water system)
* Installation of connections to plumbing by a licensed plumber only
* System must meet Australian standards and be approved by local authority
* System must be pre-tested prior to approval

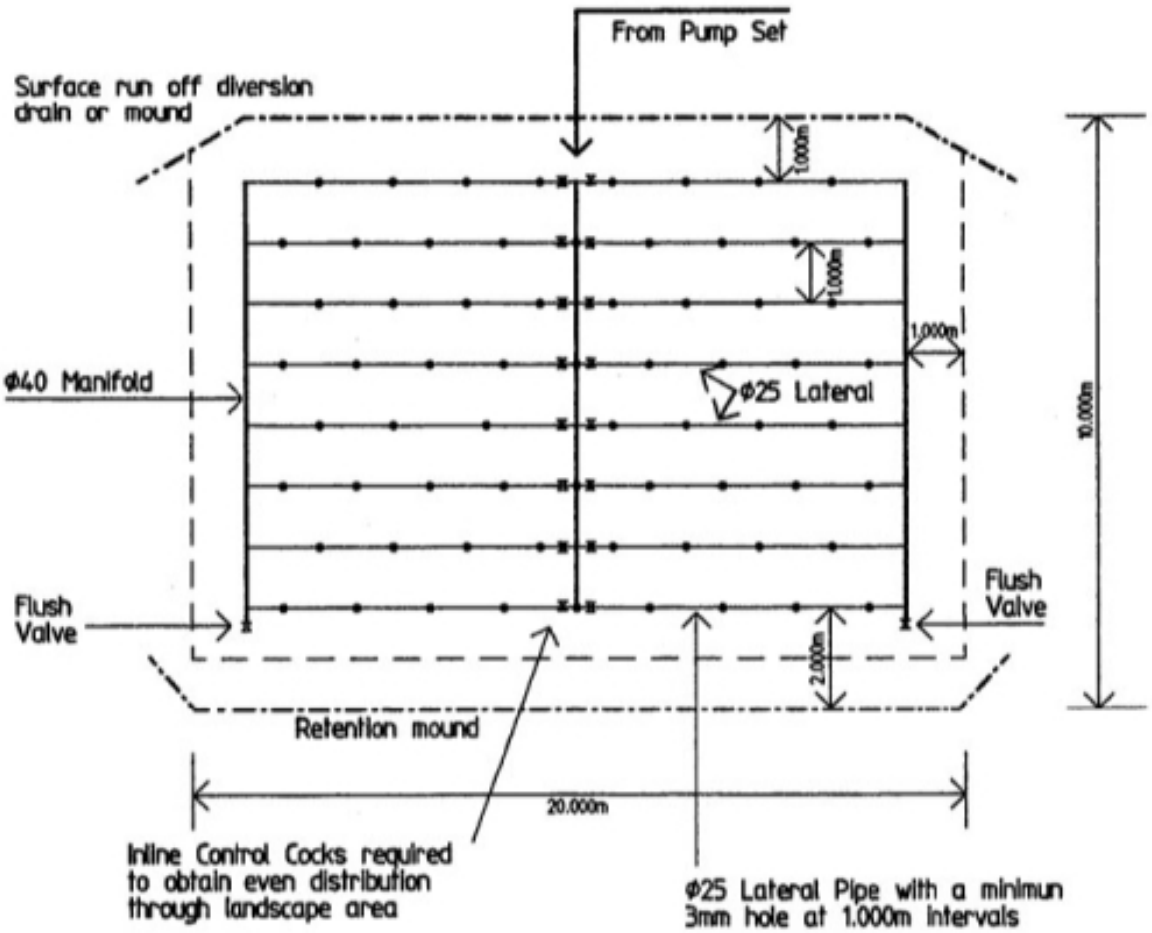
USING GREYWATER ON YOUR GARDEN

Treated grey water should only be used on the garden during dry weather because after rain, the water can spill onto neighbouring land. It is also wise to avoid additional fertiliser when applying grey water.

The model guidelines lay down strict conditions for the garden reuse area and your garden distribution system will need to be below ground. (See the diagram on the following page.)

SUGGESTED SUB-SURFACE TRICKLE IRRIGATION AREA METHOD





TYPICAL PLAN LAYOUT & LATERALS FOR AN IRRIGATION AREA 200m^2

FIGURE

Scale : N.T.S.