ARCHICENTRE AUSTRALIA TECHNICAL INFORMATION SHEET - DESIGN

GUIDE TO WATER-WISE LIVING

SMART TIPS FOR A HEALTHY, WEALTHY AND WATER-WISE HOME

Drought – Flood – Drought….the ongoing phenomenon of drought and flood conditions continue to play havoc across Australia – still, property owners must continue to look at simple and innovative ways to save our precious natural resource – Water.

A water-wise home employs subtle design features to collect and conserve our water. These features help:

- **Reduce** the amount of water used
- **Use** water that falls from the sky
- **Recycle** water through natural means and improve the quality of discharge from the site.

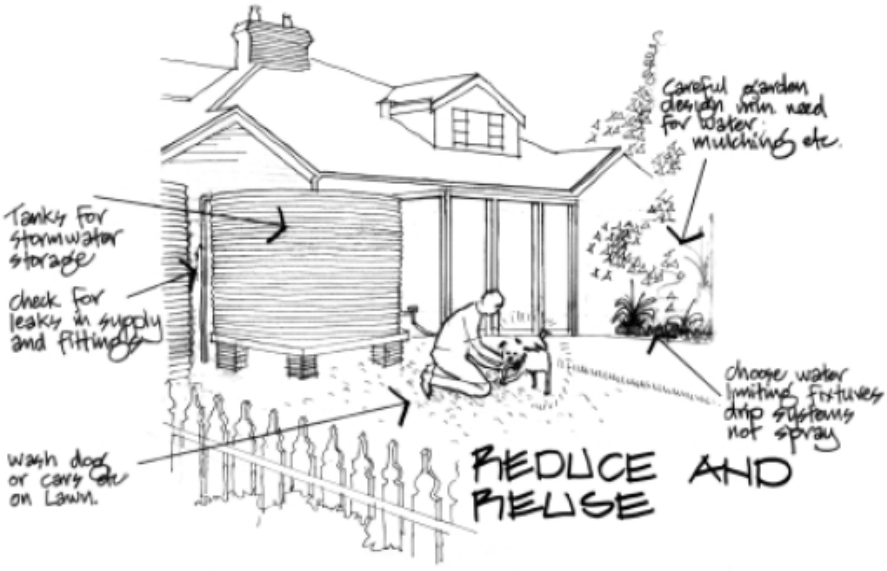
REDUCE

The amount of water we use can be reduced in a number of ways:

- Install a dual flush toilet cistern
- Install a AAA rated (reduced flow) shower head
- Install mixer taps in your bathroom and laundry
- Make sure no pipes or taps are leaking
- Design a garden with a mulched bed, low-maintenance plants and paving as an alternative to a large thirsty lawn.

Reduce wastage by:

- Taking quick, yet thorough showers.
- Using the correct level settings on your dishwasher and washing machine.
- Giving plants a long soak once a week. In time, they will develop a better root system, and eventually need less watering.



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USE

Water doesn't just come from a tap, you know! Hundreds of thousands of litres of water are diverted away from our properties and out into the street every year.

If we collect rainwater on site, we get the benefit of being able to use that free rain when we want to. Rainwater tanks come in all shapes, sizes and materials, and can be connected to supply your house or garden.

Use rainwater:

- For drinking and cooking – but make sure you have it tested for potability first!
- In the garden for summer watering
- In the hot water service to give 'soft water' (this can prolong the life of your HWS in some areas)
- For the washing machine - your clothes may be whiter, and you may use fewer detergents
- To flush the toilets.

There are many ways to improve the quality of the water you collect, from first flush systems, to filtration and settlement tanks. No matter what your situation, rainwater usage can reduce your water bills.

RECYCLE

With costs for domestic water increasing, recycling systems present an obvious advantage. Water for recycling is categorised as follows, and must be treated accordingly:

- **Grey water** – wastewater from bathrooms and laundries
- **Black water** – wastewater from toilets and kitchens (chemicals and food scraps can increase the level of bacteria in water from the kitchen sink)

It is important you select a method of recycling that ensures a safe and continuous supply of water, which can then be used for flushing toilets and watering some sections of the garden.

The systems all use a method of treating the bacteria **anaerobically** (where water is starved of air), and then **aerobically** (where the water is oxygenated and aerated).

Systems available include:

- **Reed beds**, a completely natural grey water recycling system that uses a plant's roots in a bed of gravel to aerate the water and break down the bacteria.
- **Dual tank** treatment systems that can be used for Black and Grey water.

The treatment method will determine the way in which the final product is used.

By putting water that is normally discarded from our site back into the water table, we are able to maintain soil moisture levels and support the growth of trees and larger plants. All of these issues ensure that the natural balance of the environment is maintained.

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