



WATER – issues paper

In Australia our water resources are extremely variable. Climate change is going to add to this variability and future supply is predicted to decline. Australians rank among the highest consumers of water on a per capita basis with the highest domestic internal water footprint per capita (OECD environmental indicators 2004, OECD Environment Directorate, Paris 2004 p22).

In South Australia the average household consumption for metropolitan Adelaide for 2002 to 2003 was 445 L/p/d (litres per person per day). During the same period the average for Norwood Payneham St Peters (NPSP) council area was 380 L/p/d. NPSP Council has a number of strategies in place, as well as future plans, to reduce water consumption.

Measures include managed watering plans for parks, planting of low water requirement native vegetation and installation of dual flush toilets (State of the Environment Report 2005, City of Norwood Payneham & St Peters: December 2005). It will also be necessary for households to become more water efficient and reduce their water consumption over the next few years.

Becoming more water efficient

There are three main areas to consider if you are to become water efficient in the home:

1. Measuring
2. Reducing
3. Re-using and substitution

Measuring

This is important because it will give you the vital information on which to make changes to reduce your water consumption.

- On the back of your last water bill there is information about your average daily water use over the last three billing periods. Check your water consumption in winter and summer and calculate your current average daily water use for summer and winter. Is the summer figure greater than the winter figure? Is this because you use a lot of water on the garden? Or do you have a swimming pool in which summer evaporation is a problem?
- The following table is a useful guide to determine how your household rates for water efficiency. These are modest targets; it is certainly possible to use less particularly if water is not used on the garden. 100 litres per person per day is achievable without any risk to health.

Number of people in household	Water use in litres per day
1	230
2	334
3	436
4	538
5	640
6	741

City West Water, Victoria

- Keep a water use diary on a daily basis for a week or longer. Keep notes of how water is used in each 24 hour period. To check for leaks read your meter late at night and early next morning when you know that no water has been used. If your meter shows any change you will know there is a leak.
- Have a water audit done by a plumber. SA Government provides rebates for water audits – see www.sawater.com.au rebates for details. Alternatively you could do your own using the Water Smart Home Audit on the SA Water site or use the more detailed Green Plumbers document on www.greenplumbers.com.au/information/inspections

Reducing and re-using

Your measurements, monitoring and auditing should enable you to determine the direction you proceed. The following is a summary of some ideas to reduce water use both outside and inside the home.

Outside: this is where most water is used and where savings can be made.

- mulch using bark chips or pea-straw particularly during summer. Mulching with organic material will reduce evaporation from the soil in summer and will also improve the water-holding capacity of the soil as the mulch breaks down releasing organic matter into the soil.
- gradually replace plants that need more water with those that need less. Be cautious when you select plants that require less summer water – many are environmental weeds and some of the newer Mediterranean garden plants could become environmental weeds in the future. Remember that weeds like soursob and capeweed were garden plants that escaped! When in doubt select local native plants.
- reduce or eliminate lawn areas. Allow remaining lawn areas to die back during the summer (the underground stems of grasses like couch will remain alive without water) and do not mow close to the ground. Leaving some grass height minimizes evaporation.
- use a bucket for washing cars and park on the lawn if you have one, or go to a car wash that recycles more than 90% of the of the water it uses.
- if you have a pool or spa buy a cover to reduce evaporation

Inside:

- do not leave taps running and avoid rinsing under a running tap
- use rinse water and warm up water on plants
- only use dishwashers when full
- purchase a front loading washing machine*
- wash only full loads
- install water efficient shower heads or a flow restrictor on shower*
- use shower timer to restrict showers to under four minutes
- install a dual flush toilet*
- replace washers in dripping taps

*Rebates for showerheads, dual flush toilets, water efficient garden goods and washing machines. See www.sawater.com.au for details and application forms, or contact the Water Rebates Hotline on 1800 130 952.

Substitution

Substitution involves installing a rainwater tank to collect rainwater that falls on your roof and would otherwise flow to stormwater drains. Using water from a bore is not substitution since our aquifers, rivers and rainwater catchments are inter-linked. Rebates are available for rainwater tanks. It is worth thinking about the purpose for which you wish to collect rainwater.

Garden watering

In Adelaide a water tank to save rainwater which falls in winter and using it to water gardens in summer is not cost-effective and usually saves rather little water. Adelaide has a Mediterranean climate which means that most rain falls in winter. Through the months of summer -November to March or April – there is very little rain. For example, for every 100 square metres of roof area you might need a tank of 40,000 litres (8000 gallons) to save enough winter rain for use for a summer garden.

Household use

For laundry, showers and flushing toilets a tank of 9000 litres (1500 gallons) will continually refill during the winter and reduce your total water consumption over the year.

The present water rating system charging higher amounts for higher usage goes some way towards rewarding rainwater use through using less mains water.

When installing a rainwater tank you will want the water quality to be as good as possible. Keep gutters and leaf collectors clean and free of built-up debris. A first-flush diverter which directs the first flow of rain away from the tank is an effective investment, since most of the airborne contaminants and bird droppings will be washed off. Diversion of about 50 litres for each 100 square metres of roof is ideal. Make sure the tank is well sealed to prevent entry of vermin and mosquitoes, with all outlets and manholes sealed with mosquito-proof mesh. Mesh of 0.75 mm (Queensland mesh) rather than the usual 1 mm is useful for keeping out smaller insects and will also filter out finer debris.

Queensland mesh fittings are produced and available in Adelaide but are not standard on South Australian tanks.

Rebates are available for rainwater tanks plumbed into household fixtures. See www.sawater.com.au. This site also has useful information about installing rainwater tanks.

Resources

SA Water www.sawater.com.au
Tel. 1300 650 950

City West Water (Melbourne)
www.citywestwater.com.au

Save Water! Alliance
www.savewater.com.au

Green Plumbers
www.greenplumbers.com.au
Tel. 1300 368 519

Water Efficiency Labelling and Standards Scheme (WELS)
www.waterrating.gov.au
Tel. 1800 803 772