

Reducing water demand



Reducing water consumption in the home is a simple and easy way to decrease both your water and energy bills and reduce your household's impact on the environment.

Scarce water resources are conserved reducing the need to dam rivers, less waste water is produced and treated at sewage plants and greenhouse gas emissions are reduced.

Low cost water reduction can take place in every household, often with costs recouped through water and energy savings within one year.

5 WAYS TO MINIMISE WATER USE

- > Reduce indoor water use by choosing water efficient showers, toilets, taps and appliances.
- > Minimise outdoor water use through reducing grassy areas and planting native species. Minimise paving of outdoor areas as this increases heat radiation and water runoff from the site. [\[See: Outdoor water use\]](#)
- > Wash cars and bikes on the lawn so that the grass is watered at the same time.
- > Sweep your paths and drives instead of hosing them down.
- > Reuse water where possible. [\[See: Water re-use\]](#)

SHOWERS

The shower is one of the easiest and most cost-effective places to decrease your water use.

An inefficient showerhead can use more than 20 litres of water every minute while an efficient AAA rated one will provide a high quality shower using a maximum of 9 litres every minute. Depending on the model you choose it is possible to get additional features such as massage, self-cleaning, and flow cut-off control.



AAA-rated showerheads cost about the same as conventional ones but can save around \$100 annually on household energy and water bills. This is because they use less water and less hot water, meaning less energy is used for water heating. Prices for efficient showers range from \$17 to \$200. The average price is around \$45.

Fitting an AAA rated showerhead takes about 10 minutes for a plumber or experienced handy person. Don't forget to use plumber's thread tape.

The environmental benefits are:

- > lower water use;
- > decreased wastewater volume;
- > reduced CO₂ emissions from reduced hot water use.

TOILETS

There are many ways to reduce the amount of water used by your toilet:

Use the half-flush button when appropriate.

Insert a water displacement device into your tank if you have a single flush toilet. You can purchase these or place a plastic bottle filled with water in the cistern. Make sure it doesn't obstruct the mechanism. Don't use bricks as they can crumble and stop the system working properly.

Have your plumber adjust the flush volume of your cistern.

What leaking toilets cost

	LITRES PER HOUR	LITRES PER YEAR	COST PER YEAR
Slow leak, barely visible	0.5	4,400	\$3
Leak visible in bowl, no noise	1.5	13,100	\$8
Visible leak, just audible	6	52,600	\$32
Visible leak, constant hissing sound	11	96,400	\$58

Based on a water price cost of 60 cents per kl of water.

Fix leaking toilets immediately. A slow, barely visible leak can waste more than 4,000 litres per year. Visible leaks can waste over 95,000 litres.

Check for leaks by placing a couple of drops of food colouring or dye into the cistern. If colour appears in the bowl within 15 minutes without flushing, then a leak exists and should be repaired.



Replace the toilet with a 6 litre/3 litre dual flush toilet. Dual flush toilets are required in many places in Australia and most cisterns available in stores are 6 litre/3 litre dual flush.

Replace the cistern on an old toilet with a 9 litre/4.5 litre cistern if replacing the entire unit is not an option.

The most water efficient toilet is a waterless toilet, of which there are a range of models and types available. They work with no odour and little maintenance while providing excellent compost. For more information on waterless toilet systems. [See: [Waterless Toilets](#)]



Composting toilet



External components

TAPS

There are a number of things you can do to ensure that your taps are not using more water than necessary.

Fix leaks immediately.



A tap leaking at the rate of one drip per second will waste more than 12,000 litres of water a year.

Don't over tighten taps. This can wear the washer and cause leaks.

Install a flow regulator on kitchen and bathroom sink taps.



Ensure that all new taps are water efficient. Look for the AAA rating.

Install mixer taps in showers. They can reduce the potential for scalding and save large quantities of water wasted through running the shower while trying to get a comfortable water temperature.

Install separate hot and cold taps or mixer taps which provide cold water only in the middle position over basins and sinks. Mixer type taps are usually left in the middle position. This means that each time the tap is run for a glass of water or to rinse a toothbrush, hot water is drawn off just to cool in the pipe without ever being used.

WASHING MACHINES

The laundry is a great place to reduce your water consumption and is a potential source of water for your garden. There are a number of ways to improve the efficiency of your water use in the laundry.



Adjust the water level on the machine so it is appropriate for the size of the load. Try to wash only full loads of laundry and use the 'economy' cycle if you have one.

Use the 'suds saver' function if your machine has one.

Divert the wash water from your laundry to other uses, such as flushing your toilet or watering your garden [See: [Water Reuse](#)]. You will need to check with your Council to make sure this is allowed and installed to comply with regulations.

Purchase a water efficient washer. Most front loaders are efficient, and there are now some efficient top loaders on the market. They will save 50 litres or more per load. Water efficient washers also use less detergent (the big money saver).

DISHWASHING

A couple of simple ways to use your water more efficiently when washing dishes are:

Avoid rinsing prior to washing. Scrape food remains off dishes and dispose of them in the compost or garbage bin rather than rinsing them away.

Always use a plug in the sink rather than letting the tap run continuously.

Use a sink strainer to remove food scraps from the waste water.

Some newer model dishwashers are very water efficient, and can use less water than if you wash dishes by hand (depending on your water use habits). The water use of dishwashers can range from 1.6 litres to 4.8 litres per place setting, with efficient machines using 18 litres of water or less per cycle.

Always try to fully load the dishwasher before using it and use the 'economy' cycle if you have one.

OTHER WATER WASTERS

In-sink waste disposal units use water when operating and also mix waste water with food scraps. Rather than using in-sink disposal units, dispose of organic waste material in a compost heap or worm farm.

Storage water heaters release water through a pressure release valve when they are heating water. Have a professional check the release valve on your water heater. The amount of water used may be minimised by setting the release rate to the minimum recommended by the manufacturer. Turn your heater off when going on holidays so that water is not being heated and wasted while you are away.

Evaporative air conditioners have a bleed valve that releases water while the air conditioner is in use. Ensure that the bleed valve is set to the minimum required for the air conditioner to work with your water supply. Make sure the air conditioner is turned off when you go on holidays.

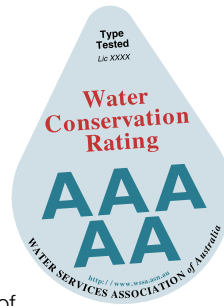
Outdoor water use

See 2.5 Outdoor Water Use for tips on:

- > Watering gardens and lawns.
- > Washing cars, houses, pathways and garden tools.
- > Pool filling and maintenance.
- > Other recreational uses.

THE AAAAA RATING SYSTEM

The Water Services Association of Australia (WSAA) conducts a National Water Conservation Labelling Scheme to provide consumers with information on the relative water efficiency of products. Unlike the energy labelling scheme, this one is not compulsory.



This scheme covers washing machines, dish washers, showerheads, toilet suites, taps and commercial urinals. Labels are displayed on merchandise in the form of a 'rating label' as shown here.

Products must conform to the appropriate Australian Standard for performance, such as Australian Standard AS/NZS 3662 for showerheads.

For example: A showerhead that provides a high quality shower using less than 9 litres per minute will be 'AAA' rated. One that uses 9 to 12 litres per minute will receive 'AA' rating. A 12- 15 litre per minute showerhead will have an 'A' rating. Those using more than 15 litres per minute do not comply with this scheme.

The labelling scheme generally means the following in terms of water efficiency:

RATING	WATER EFFICIENCY
AAAAA	Excellent
AAAA	Very high
AAA	High
AA	Good
A	Moderate

Currently the most efficient showers, taps and toilets are AAA rated, but there are AAAA clothes and dish washers available.

For further information about the labelling scheme and to search for products, see the WSAA web-site at <http://www.ratings.wsaa.asn.au>.

For more technical information about Australian Standards, see their web-site on <http://www.standards.com.au>.

Some council development control plans specify water efficient fixtures in new developments and renovations. Check with your council on its requirements. They should also be able to tell you about any rebates or subsidies available when you purchase water efficient products.

ADDITIONAL KEY REFERENCES

Most local councils and water utilities have some information on water efficiency.

White, S. ed (1998). *Wise water management: A demand management manual for water utilities*, Chapter 8. Water Services Association of Australia and NSW Department of Land and Water Conservation.

Windust, A (2003) *Waterwise House & Garden*, Collingwood, Landlinks Press

Mobbs, M. (1998). *Sustainable house: living for our future*. Sydney, Choice.Books

Choice magazine also publishes test reports on water using appliances and fixtures

Sydney Waters water conservation and recycling site www.sydneywater.com.au/everydropcounts

Australia water conservation tips www.savewater.com.au

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