

## Card for Humanity - Water

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Given some of the increased water restrictions that are being introduced around Australia, it is a timely opportunity to share some water saving tips.

Firstly, some facts about our blue planet;

- 71% of the earth is covered in water ([1])
- 97% of all the water on the earth is salt water, which is not suitable for drinking ([1])
- 3% of the earth's water is fresh water, with only 1% available for drinking (the other 2% is held in ice caps and glaciers) ([1])

Desalination is one option, however its environmental and financial impacts are still being assessed. Recent research has found a "passive" technology that uses solar for a more efficient desalination process ([2]).

Apart from some of the obvious water saving measures we may already be living with, are there any other water saving methods you use in your home or at work? Let us know in the forum by using the comment box below the references for this article.

And here are a few suggestions that you may not have heard about:

- Shower bucket. Whilst waiting for the shower water to heat up, capture the cold water in a bucket. This water can be used for your plants
- When draining and rinsing cooked pasta or rice, save the cooking/rinsing liquid, captured by your cooking pot or a large bowl in your sink. Allow the water to cool and use it for watering



your plants

- When using the tap for washing vegetables or rinsing pots, collect excess water in the sink or in a bowl
- Cover your swimming pool to reduce water evaporation. Dependent upon location, uncovered swimming pools lose on average 3mm- 5mm of water per day. A recent evaporation study compared water savings on various pool covers. It found bubble covers were 94.9% efficient for reducing water evaporation ([3])
- Choose water efficient appliances. Front-loading washing machines are usually the most water efficient, using up to 50% less water ([4])
- "Greywater" is the wastewater from the hand basin, shower and bath which can be used to
  water plants, as opposed to "black water" which is from toilets and needs to be treated.
  Reusing greywater is a great way to save water, but it is important to consider the safety
  precautions when using it, as outlined in these <u>safe usage guidelines</u>. An example of
  greywater collection is the practice of turning off the shower whilst soaping up/shampooing
  your hair, and then collecting the drain off
- Shorter showers. We have heard this one before, and here are some impactful statistics from Sydney Water. For every minute reduced showering, you save approximately 10 litres of water. This is around 49 million litres a day across Greater Sydney ([5])
- Low water pressure could mean an undiscovered leak; it could be good to check your plumbing
- Are you short on space for a full sized rainwater tank? An alternative for collecting your rainwater is to use a water butt, also known as a rain barrel/mini water tank (see figure 1). Collect rainwater from your roof that can be used to water your garden. Water butts often come with a tap for easy use of the collected water. Amongst many of the benefits, your plants are not getting "treated" tap water. There are plenty to choose from at your local hardware store. Please refer to your local council regarding water supply codes
- Plant indigenous Australian plants that are built to withstand dry conditions. Indigenous plants are those that occur naturally in your local area. Your local council will be able provide you with information on plants that are suitable for your area

Figure 1. Water butt being fed by a gutter pipe in a garden





you have any other water saving tips, we would love to hear from you in the forum.



## References

- 1 Sustainability Victoria. How to save water (and money). Accessed November 2019. https://www.sustainability.vic.gov.au/You-and-your-home/Live-sustainably/Save-water
- 2 Chiavazzo, E., Morciano, M., Viglino, F. et al.Passive solar high-yield seawater desalination by modular and low-cost distillation. Nat Sustain 1, 763–772 (2018) doi:10.1038/s41893-018-0186-x
- 3 Misgana Muleta. Effectiveness of pool covers to reduce evaporation from swimming pools. January 2016. Department of Civil and Environmental Engineering California Polytechnic State University. San Luis Obispo, California. Accessed November 2019. <u>https://c.ymcdn.com/sites/www.npconline.org/resource/resmgr/Docs/Evaporation\_Study\_Report.pdf</u>
- 4 Sustainability Victoria. Washing Machines, n.d. Accessed November 2019. https://www.sustainability.vic.gov.au/You-and-your-home/Save-energy/Appliances/Washing-machines
- 5 Sydney water. Waterwrap. Nov 19 to Jan 20. Water restrictions save water while we're in drought!. n.d. Accessed November 2019. http://www.sydneywater.com.au/web/groups/publicwebcontent/documents/document/zgrf/mjew/~edisp/dd\_210924.pdf