Desert Knowledge Australia COOLmob is a joint initiative of Arid Lands Environment Centre and Desert Knowledge Australia focused on reducing energy and water usage in Alice Springs.

PO Box 2796
Alice Springs. NT. 0871
Ph: 08 8952 0299
Fax: 08 8953 2988
Email: dka.coolmob@coolmob.org

FACT SHEET - WATER

Source & Extraction:

Our domestic water in Alice Springs is drawn from the Roe Creek bore field, which is situated about 15km south of town. The water lies in underground aquifers and is recharged from rainwater. It is pumped up from around 150m below ground level into town to provide water to all residence in town. The aquifer, when extraction was first started in1964, was at a level of about 90m below ground level.

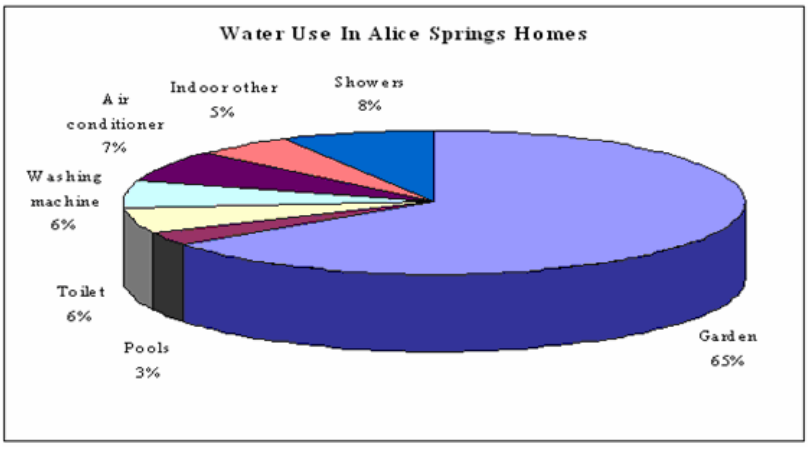
The rate at which the acquifer is being recharged by rainfall is about 5% of the rate of extraction, which causes the water large drops in water levels over time. In 2005 the town extracted around 11000 Mega litres (or eleven thousand million litres) per year.

There is also a supply of water from the town basin acquifer, which sits directly under the CBD, the Gap, parts of Gillen and Sadadeen.. This aquifer is recharged by irrigation, stormwater and Todd River flows which, along with a high salt content, makes it non-drinkable. This source is used for irrigating some ovals, the golf course and other industrial applications.

Usage:

Alice Springs has the second highest per capita water use in Australia, second only to Kalgoorlie. **This equates to an average of 1015 litres per person per day.** The average American uses 805 litres per day and the average Gambian uses only 4.5 litres per day.

The average house water usage is 700 kilolitres per year, which amounts to $470. The average unit water usage is 350kilolitres per year, or $235. This residential water use accounts for about 52% of the total town water use. We pay a very low tariff for water (68c/kL), which is half the national average. This low price is enabled by a government subsidy of around $1/kL and may be one of the factors adding to the undervaluing and overuse of the resource.



Studies have been undertaken in Alice Springs to see just where that water goes. The graph above explains the results quite clearly. Obviously, we have very thirsty gardens.. This may be because we are planting

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species from tropical or coastal areas that require far more water than local native species which are used to local conditions and climate.

Greenhouse Emissions:

"What does water have to do with Greenhouse Gas?" I hear you ask. Because we draw our water from underground aquifers about 15km out of town, it is quite an energy intensive process to pump it up and into town. The process of extraction and pumping into town makes it the third most expensive water supply process in Australia. Currently the figure is approximately $150 or 1,100 kWh per MegaLitre. Based on these figures, an average house adds about half a tonne of greenhouse gas per year through their water use. This will increase as the aquifer level falls further. So, if your water demand is reduced, so are your greenhouse gas emissions.

Reducing Usage:

Everyone has a part to play in lowering the towns water demands and extending the longevity of the available water resources.

Top Tips:

- *Fix any leaks or dripping taps*
- *Reduce the frequency of watering, giving plants a bit more water, but less often*
- *Irrigate or water in the evening or early morning to reduce evaporation.*
- *Install a low flow showerhead – this can save tens of thousands of litres over a year. Also, reduce the length of your showers.*
- *Run your dishwashers and washing machines on short or "economy" cycles.*
- *Install tap aerators or flow restrictors into taps.*
- *Run rainwater from your roof onto the garden, rather than into drain.*
- *Install a rainwater tank or greywater re-use system.*

Home Water Audits:

DKA COOLmob offers Home Water Audits to Alice Springs residents who want to know how they can reduce their water usage. The Audit involves a trained auditor coming to your house, having a look at your bills and doing a walk-through of your house. Based on those observations, the householder and Auditor develop a list of actions and priorities to tackle the water use.

Many audits have taken place around Alice Springs and have helped many householders to fine tune their water demands. It is good for the environment AND your wallet! To book an audit please contact the Program Manger on the details provided on the top of this sheet.