

New Ways of Looking at Water Use

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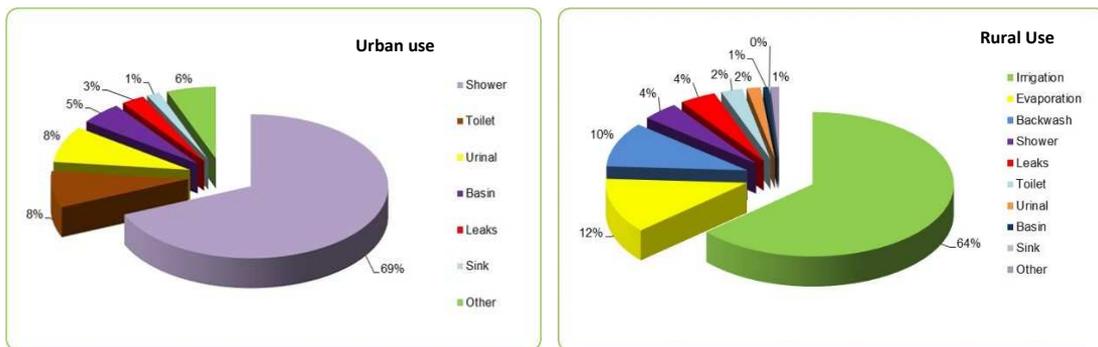
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The findings of a new study into water use at rural swimming pools in WA were presented at the annual LIWA conference in Fremantle. The study developed a new framework for looking water uses such as irrigation which are independent of patron numbers, and patron dependent water use such as showers and ablutions. The study then examined the financial cost implications for water management for managers of these facilities.

LIWA commissioned KASA Consulting earlier this year to conduct water efficiency audits on 10 rural and regional swimming pools in WA. The audits were then used to assist a number of pools obtain Waterwise Aquatic Centre accreditation through the Water Corporation study.

Most rural pools do not have access to non-potable water from bores for low grade uses such as irrigation. This gives them a markedly different water use profile than their urban WA counterparts as seen in Figure 1.

Figure 1: Urban and Rural Pool Water Use: WA



Many smaller pools also have very low visitor numbers which means their backwash schedule is less influenced by patronage than urban pools. As a result, nearly all water use in the rural pools is patron independent when, especially when evaporation is also added to this category.



Hon. Mia Davies, Minister for Water pictured with the recipients of the Waterwise Aquatic Centre accreditation at the LIWA Annual Conference, Aug 15

Table 1: Water use by influence: Rural WA Pools

Site	Irrigation	Evap. & Backwash	Total %
A	36%	9%	45%
B	46%	49%	95%
C	61%	27%	87%
D	33%	25%	58%
E	66%	23%	90%
F	47%	37%	84%
G	31%	27%	59%
H	36%	14%	50%
I	45%	49%	94%

Raising water use efficiency in patron independent water use is typically a capital intensive form of spending. This spending includes filter upgrades, the re-design and refitting of irrigation systems, and the installation of shade sails to reduce evaporation.

Rural swimming pools are on small and limited budgets which puts this type of spending beyond their reach. The study suggests shifting the responsibility for this type of water efficiency spending away from individual pool managers and into the capital works budget at the shire council level. This allows for a phased approach where the issues can be addressed in a multi-year plan at the strategic planning level.

The shift to the shire council level also opens up opportunities for water efficiency partnerships between bodies such as local Regional Organisation of Councils, LIWA, Royalties for Regions funding and the relevant government agencies; the Water Corporation and the Department of Water.

The one negative finding from the study is that leaks remain a significant issue in rural pools. Leakage rates as high as 50% of total water use were identified as a result of KASA Consulting's water efficiency audits. This not only highlights the need for vigilance by individual pool managers but also shows the benefits of data logging water meters and other new technologies which can monitor water use in real time.

A full copy of the paper is available from Geoff Diver geoffd@kasaconsulting.com.au



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