

Positive signs as Kwinana industries cooperate to save water



Major water saving: This water reclamation plant at Kwinana has reduced the use of scheme water by six gegalitres per day since its commissioning in 2004.

It's a case of every drop counts as industries along Western Australia's premier industrial strip at Kwinana join in a concerted push to conserve one of the area's most basic requirements — water.

Over the years, a cooperative approach has seen a lot achieved with local water conservation. For example, the commissioning of a reclamation plant at Kwinana in 2004 has had the effect of reducing scheme water usage by 6 gegalitres per year. The plant also treats and recycles local industrial waste water, reducing by six million litres per day the amount of treated water that once was discharged into Cockburn Sound.

Now the Kwinana Industries Council has a vision to take water conservation to even higher levels of efficiency. This will come in a variety of ways including reduced scheme water usage and increased recovery and the recycling of water. The ultimate aim is to give the Kwinana Industrial Area a close to zero reliance on scheme water.

With industrial water consumption at Kwinana expected to more than double over the next 15 years, from 32.7 gegalitres in 2006 to 69.9 GL in 2021, the Kwinana Industries Council realised that some serious planning was required to

ensure water requirements were met based on 'fit for purpose use'.

In October 2005 the Kwinana Industries Council engaged independent consultants to undertake a detailed water study to analyse water needs and conservation measures over a 15-year planning horizon.

Resulting from this, consultants Burns Roe and Worley confirmed that substantial additional water would be required, and recommended it be sourced from:

- Groundwater from the Jandakot and/ or Rockingham areas and Wellard sub-area — 11.6 GL/y at a capital and operating cost estimate of \$0.23 – \$0.57 kL.
- Water Corporation treated wastewater (low and high quality) — 56 GL/y at between \$0.40/kL to \$1.10/kL.
- Aquifer recharge of South Jandakot stormwater — 2.2 GL/y at \$0.38/kL.

A number of further regional synergies has also been identified by Kwinana industry. A current partnership with the Centre for Sustainable Resource Processing is assisting industry in the development and implementation of ongoing water conservation plans for the KIA.

Kwinana Industries Council Director Tonia Swetman said: "My observation is that industries are prepared to wear a cost to be socially responsible, and this definitely applies to water conservation in the Kwinana Industrial Area."

"A high degree of cooperation already exists among Kwinana industry, and I am sure this spirit will lead us to sound and tangible outcomes with respect to local water management," she said. ■

	Kwinana Industry Water Consumption (GL/y)
Existing industry consumption 2006	32.7
Existing industry projected consumption 2021	16.2
New industry projected consumption	20.7
TOTAL (2021)	69.6