Mitchell River Aquifer Storage and Recovery (ASR) project
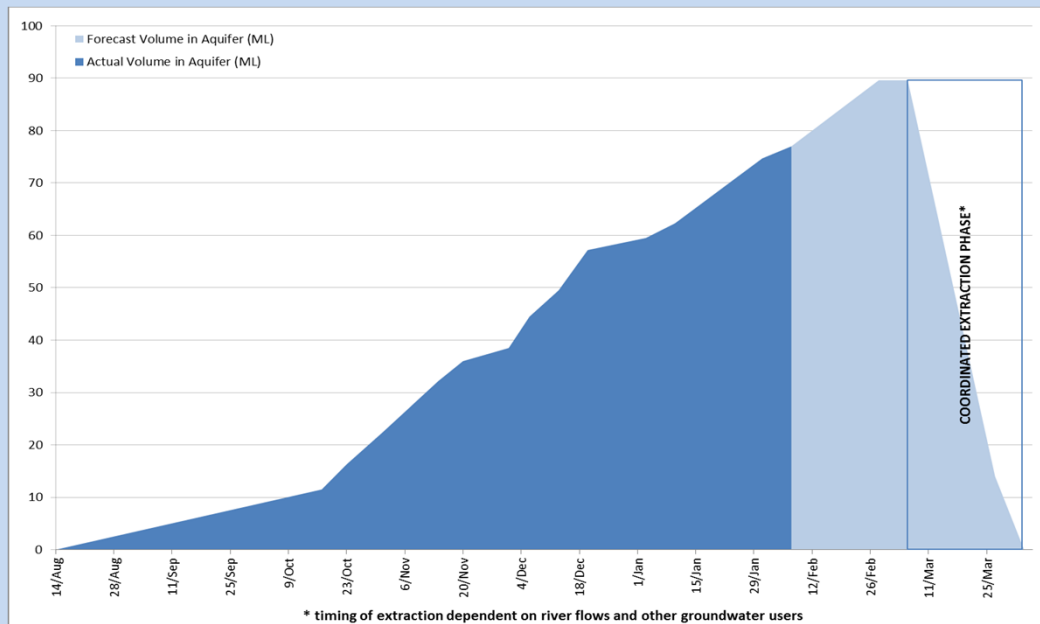
(February 2012 update)

Volume injected

As at 8th February EGW has injected 76 ML of water in the aquifer, which is expected to peak at 89ML by the start of March when the current injection cycle is expected to finish. Stopping of injection will be determine by river flows and other groundwater users. Extraction of this water will be coordinated with other users to undertake a performance test of the aquifer.

* timing of extraction dependent on river flows and other groundwater users

What next?

EGW will continue to provide irrigators, the local community and Southern Rural Water with regular updates on how the ASR program is progressing, including a report on its first year of operation. There will be opportunities to provide feedback.

We will:

•	maintain ongoing monitoring and independent scientific analysis of the ASR initiative, and look to implement enhancements, including to the efficiency of the water recovery process, as appropriate;

•	maintain ongoing consultation with the owners of bores being monitored and coordinate our program of water extraction with other bore owners;

•	continue discussions with Southern Rural Water in relation to inter-annual water banking.

For further information please contact Simon Robertson on 5150 4426 or via email srobertson@egwater.vic.gov.au

August 2011 – ASR goes into operation
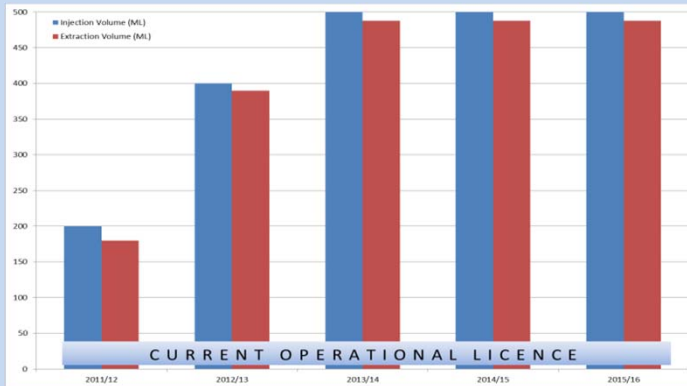
East Gippsland *Water*

Background:

In August 2011 East Gippsland Water (EGW) received approval from the groundwater regulator, Southern Rural Water, to store bulk amounts of water for drinking, underground in an aquifer.

Using a technique called Aquifer Storage and Recovery (ASR), and following successful trial in 09/10, water sourced from the Mitchell River is being injected into the Latrobe Valley group of deep aquifers via our borefield at Woodglen. This stored water is available to be retrieved (recovered) at a later date (typically months or years) to supply our customers across the Mitchell River Water Supply System.

EGW's recently completed Water Supply Demand Strategy identifed the need for additional storage, which is potentially acheiveable utilising ASR. ASR will also help ensure drinking water supplies for tens-of-thousands of customers are secure well into the future, helping to meet the challenges presented by projected population growth and climate variability. Making use of an aquifer as an underground storage reduces the potential for water loss through evaporation. It also maintains high quality drinking water, free from risks of algal and airborne contamination and is more cost-effective than constructing additional water storages such as open basins, dams and covered tanks. In addition it means that water can be extracted from the Mitchell River for underground storage when it is more plentiful, reducing impacts on lower seasonal flows.

Progress to date:

The licence (with strict conditions) provides as permission to store up to 200ML in the first 12 months, which can increase up to 500ML per year in subsequent years, subject to a range of controls. There are strict environmental conditions and rigorous scientific monitoring requirements that have to be met, AND are being met.

EGW has been liaising with local groundwater users in order to acquire access to private bores, enabling the comprehensive monitoring program to proceed. Our systems have also been audited and will be reviewed following the conclusion of the injection and extraction phase.

Monitoring:

The monitoring activities consist of –

- Five EGW bores (monitored continuously)
- Six privately owned bores (five monitored monthly and one continuously)
- Three State Observational Bore Network (2 deep, 1 shallow) bores (monitored continuously)

Aerial map showing bore locations

Automated monitoring is conducted where possible and privately owned bores are subjected to rigorous safety checks.

An independent expert conducted an audit of the ASR project in November 2011 wand this confirmed full compliance with the Southern Rural Water licence.