

**Australian
Groundwater
Technologies**



MAKING WATER WORK



Providing integrated water management solutions for agriculture and mining as well as industrial and commercial applications across australia.

Australian Ground Technologies Making Water Work



ndwater



AT A GLANCE

WHO: Australian Groundwater Technologies

WHAT: AGT provides integrated water management solutions for agriculture and mining as well as industrial and commercial applications across Australia'

WHERE: Adelaide SA 5001, Australia

WEBSITE: <http://www.agwt.com.au/>

In the year 2000, a small group of hydrogeologists who were specialists in Managed Aquifer Recharge set up Australian Groundwater Technologies. The company was established to provide solutions for urban water resources management, catchment water resource management and water management for the mining industry. In 2004, the company was bought out by MECRUS which is now the parent company of Australian Groundwater Technologies. MECRUS is an asset management company which specialises in asset management for the agricultural, mining and water utility sectors.

Australian Groundwater Technologies is a specialist in Managed Aquifer Recharge (MAR). This technology allows high quality water to be stored underground in suitable aquifers during periods of low demand or



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excess supply. The water can then be withdrawn when it is required. Traditionally MAR was applied across South Australia in the metropolitan areas where stormwater was harvested, treated and reinjected underground into the aquifer to store the water until the time it was needed.

In the last five years this technology has been applied in the mining industry. This process is used when mining results in high groundwater inflows which exceed the required amount needed for the processing activity. This excess water is reinjected back into the aquifer from which it came using a MAR scheme.

In the past mines would pump water out and evaporate it off to get rid of it. But this is not done now as excess water generated in mining operations is no longer considered a waste product. Mining companies look to specialists like Australian Groundwater Technologies to develop a MAR scheme to deal with the excess mine water. Before water

management through MAR is done, an investigation is conducted.

This is done by drilling a number of investigation bores which are tested to help provide information about the characteristics of the aquifer such as its permeability to determine the rate at which groundwater will flow through it. A number of tools including groundwater numerical modelling are used, which help predict the rate of

We have a reputation for being specialists in MAR

ground water inflows or how an aquifer might respond to water supply.

Australian Groundwater Technologies has developed over 60 MAR schemes and it is regularly approached by mining companies who require a knowledgeable and experienced consultant in this area.

Jason van den Akker, Principal

Australian Groundwater Technologies



Hydrogeologist of Australian Groundwater Technologies speaks about the range of services provided by the company, “We are purely a consulting company for specialised groundwater management. We provide a full range of services for mining water management and a mining company can come to us for dewatering of the mine, water supply and impact assessment.

“Otherwise the mining company may need to approach three different consultants. Most companies approach us because they have heard of us. We do not do traditional advertising. We have a reputation for being specialists in MAR. We also team up with other like-minded consulting companies and gain exposure to their client base and work on referrals from them.

“In the past a lot of our work has been focussed on the design and

implementation of MAR schemes. I think as time goes on we are now looking into investing in the monitoring and management of established schemes. Our parent company MECRUS is an asset management company so we are looking more towards the operation and maintenance side of existing schemes and implementing preventive maintenance programs.”

Australian Groundwater Technologies is active in groundwater research and technology development. It provides a range of services to MAR scheme owners. These services include management, operation and maintenance of the scheme. The company also conducts water quality sampling, data review and regulatory compliance reporting.

In a recent assignment, Australian Groundwater Technologies carried out a preliminary site investigation at the Morphettville Racecourse.





It then designed and supervised a stormwater harvesting, treatment and reuse scheme to provide irrigation quality water for the Morphettville Racecourse. In addition to this, up to 600 ML/year of urban runoff is harvested from an adjacent stormwater drain. The company currently manages this scheme on behalf of the racecourse.

Over the last three to four years Australian Groundwater Technologies has worked on about 30 different mining projects, many of which are still at the approval stage. These projects involve mine dewatering, groundwater supply and MAR. Almost a third of the projects involve mines looking for better ways to manage water and aquifer recharge.



Australian Groundwater Technologies is widely known for its technical excellence and innovative solutions. The company has carved out a niche for itself in the groundwater management area. As a 100% subsidiary of MECRUS it forms the nucleus of the MECRUS group's water services business. Its expertise in MAR technology is widely recognised and the company's prospects are

very bright as increasing government regulations and public awareness about groundwater resources will increase the demand for its services.

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