

SYDNEY WATER
NEW SOUTH WALES

Rosehill recycled water scheme case study

Cooperative arrangement supplies recycled water to irrigators and industry, saving drinking quality water

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WATER SERVICES
ASSOCIATION OF AUSTRALIA

The Rosehill Recycled Water Scheme is a water recycling project under the NSW Government's Metropolitan Water Plan—supporting the aim to increase water recycled in Sydney by encouraging industrial and irrigation customers to use recycled water instead of drinking water. The first scheme delivered by the private sector, it supplies over three billion litres of recycled water to customers in Western Sydney. AquaNet Sydney provides recycled water to Sydney Water, secondary treated wastewater is extracted from Sydney Water's Liverpool to Ashfield Pipeline and treated further by ultrafiltration and reverse osmosis. This high quality recycled water is used in cooling towers, boilers and some manufacturing processes, as well as for irrigation and firefighting. The scheme has potential to supply a further four billion litres of recycled water a year for additional commercial customers, saving the same quantity of drinking quality water.



HELPING NSW ACHIEVE RECYCLED WATER TARGETS

The NSW Government aims to increase the amount of water recycled in Sydney to 70 billion litres a year by 2015. The Rosehill Recycled Water Scheme is one of the water recycling projects under the NSW Government's Metropolitan Water Plan and supports this commitment by encouraging industrial and irrigation customers to use recycled water instead of drinking water.

The \$100 million Rosehill Recycled Water Scheme is the first public-private partnership to deliver high quality recycled water to customers in NSW under the NSW Government's Water Industry Competition Act (WICA) 2006. It also supports the government's commitment to encouraging private

sector participation in the water industry, which brings innovation and efficiency benefits.

AquaNet Sydney and Veolia Water obtained the required licences to operate the scheme under WICA. The scheme, which is the first under the Act, supplies over three billion litres of recycled water a year to six foundation customers in the Rosehill and Smithfield areas in Western Sydney. AquaNet Sydney provides the recycled water to Sydney Water under a 20 year agreement. Secondary treated wastewater is extracted from Sydney Water's Liverpool to Ashfield Pipeline and is treated further by ultrafiltration and reverse osmosis at the Fairfield Recycled Water Plant. This high quality recycled water is used in cooling towers, boilers and some manufacturing processes, as well as for irrigation and firefighting.

TOWARDS A SUSTAINABLE WATER SUPPLY

Recycled water saves large amounts of drinking water and is a reliable, alternative water supply for irrigation and industrial processes. By encouraging customers to use recycled water instead of drinking water, this scheme contributes to a sustainable water supply for the future.

Given Sydney's highly variable rainfall, schemes like this will be an integral part of ensuring the water supply for Sydney Water's customers for generations to come.

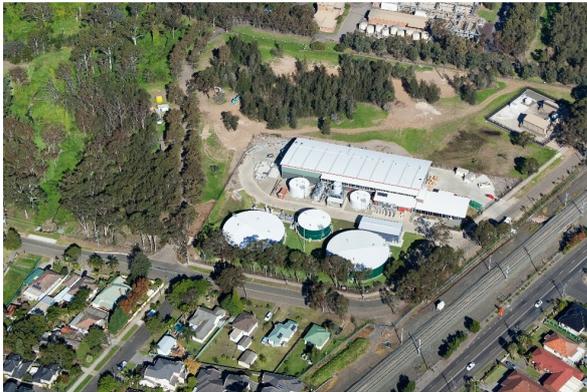
WORKING COOPERATIVELY THE KEY

AquaNet Sydney (part of the Jemena Group), in partnership with Veolia Water, designed and constructed the scheme, which includes the water recycling plant, two pumping stations, three reservoirs and 20 kilometres of pipelines.

AquaNet Sydney built and owns the pipelines and operates the recycled water supply network. The Fairfield Recycled Water Plant was built and is owned and operated by Veolia Water. Sydney Water provides the secondary treated wastewater to the Fairfield plant, and then purchases the high grade recycled water from AquaNet Sydney to sell it to the six foundation customers, who have recycled water supply agreements with Sydney Water. AquaNet Sydney will retail recycled water directly to future customers.

Construction started in February 2009 and the scheme began operating in October 2011. In December 2011, the Rosehill Recycled Water Scheme and Fairfield Recycled Water Plant were officially opened by the NSW Minister for Finance and Services, Greg Pearce.

The scheme took just over two and a half years to complete.



A PROMISING PRECEDENT

Through the scheme, Sydney Water supplies over three billion litres a year of high quality recycled water to six foundation customers. This includes a racecourse and five of Sydney's largest industrial water users in the Rosehill and Smithfield areas:

- > Australian Turf Club – Rosehill Gardens Racecourse
- > Shell Refining (Australia)
- > Boral Australian Gypsum
- > Visy Paper
- > Marubeni Australia Power Services
- > LyondellBasell Australia.

The scheme has also been designed for AquaNet Sydney to be the retailer and supplier of recycled water to additional commercial customers; they are already supplying recycled water to three extra customers in the nearby areas of Rosehill, Camellia and Yennora.

The Rosehill Recycled Water Scheme has been designed with future demand in mind, and has the potential to supply a further four billion litres of

recycled water a year for additional commercial customers.

The scheme's success through a public/private partnership is a model that can be used for future water recycling projects. It is expected that WICA will provide more opportunities and encourage further private sector involvement in water recycling in New South Wales.

SYDNEY WATER

Sydney Water is a statutory corporation, wholly owned by the New South Wales Government and provides drinking water, recycled water, waste water services and some storm water services to more than four million people in Sydney, the Illawarra and the Blue Mountains.