All clear for Adelaide River

Adelaide River Water Treatment Plant

In an Australian first, innovative biological filtration technology is delivering clean, clear water to a remote Northern Territory community, along with significant operational, efficiency and environmental gains.

A reliable source

Providing safe, clean drinking water to homes in remote communities is a significant challenge, and the Northern Territory township of Adelaide River is no exception. At the Adelaide River Water Treatment Plant (WTP), on which the town’s 300 residents rely for their drinking water, natural groundwater is drawn from a series of bores containing elevated and variable concentrations of iron and manganese. These elements can cause discolouration, laundry stains and an unpleasant taste.

Power and Water Corporation sought to upgrade the plant so that residents could enjoy clean, pleasant-tasting water directly from their taps.

An Australian first

Winning the contract to upgrade the plant with local partner Goodline in August 2014, SUEZ brought together a team of in-house experts to design and build the upgraded plant. A key requirement of the upgrade was embedding capability to remove iron and manganese. To achieve this, SUEZ equipped the plant with technologically advanced, environmentally friendly biological filters, part of a sequential process consisting of successive biological iron and manganese removal filters, offering greater effectiveness.

The filtration process occurs in a reactor containing a layer of sand media to support the growth of bacteria, which then oxidise the dissolved minerals into particles for easy removal via rapid sand filtration and backwashing. The process produces clean water quickly, and with no requirement for chemical additives.

Biologically better

The removal of iron and manganese requires two different types of bacteria and each needs different environments to achieve optimal performance. SUEZ’s Ferazur™ and Mangazur™ biological technologies form part of a sequential process consisting of successive biological iron and manganese removal filters, offering greater effectiveness.

The plant commenced operation in July 2015 with a production capacity of 1.1 million litres daily, and is the first of its kind in Australia. Together with the innovative filtration system, SUEZ’s focus on safety, quality and the client’s needs ensured the resulting plant is reliable, robust, and efficient and simple to operate.

DELIVERING
1.1MLD
OF CLEAN DRINKING WATER

Replacing the less effective approach of physical-chemical reaction. The plant commenced operation in July 2015 with a production capacity of 1.1 million litres daily, and is the first of its kind in Australia. Together with the innovative filtration system, SUEZ’s focus on safety, quality and the client’s needs ensured the resulting plant is reliable, robust, and efficient and simple to operate.

Turning on the tap

Through market-leading technology and responsive design, the award-winning Adelaide River WTP provides a cost-efficient and reliable solution to the challenge of removing iron and manganese from the local water supply. Now, the residents of Adelaide River can enjoy the same high quality of drinking water as the rest of the nation.

Contact

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