CASE STUDY: ROSSLYNNE WATER TREATMENT PLANT

A more measured world of water
Seeking sustainability
Australia is the driest inhabited continent in the world and in recent years demand for water in Gisborne, Victoria has outstripped supply. As a result, Western Water has had to import water from Melbourne to accommodate a growing population. This process is expensive and has a heavy carbon footprint, making it unsustainable in the long term. As water scarcity becomes an increasingly serious global issue, the ability to treat existing water supplies to make them potable becomes ever more crucial.

A question of quality
While not harmful to human health, manganese can affect the appearance of drinking water and stain laundry. As the local reservoir’s water was poorly oxygenated, the manganese was soluble and could not be removed through conventional filtration. This meant chemical oxidants needed to be added to aid the removal process. Western Water was taking grab samples for analysis at its offsite lab. However, this offline system failed to detect sudden changes in manganese concentration. As a result, Western Water was using low quality data to inform its dosing processes. This had previously led to a black water event which caused a costly and inconvenient plant shutdown.

Under control
Based on ABB’s track record of supplying reliable analytical measurement products to the water and wastewater industry, Western Water chose the AW634 low range manganese analyzer to help them achieve greater process control. It provided powerful, compact and highly reliable online monitoring of manganese concentrations, allowing operators to respond quickly to variations to ensure correct dosing of oxidizing chemicals. With the AW634, Western Water achieved reliable and repeatable results that corresponded to onsite grab samples. The AW634 is simple to maintain, so as well as improving process efficiency, Western Water made significant cost savings through reduced maintenance and labor expenditure. Also, reduced failure and maintenance issues meant it could avoid the costs associated with plant shutdowns.

ABB’s AW634 enabled Western Water to make significant cost saving in labor and chemical dosing while providing superior process control.