

» Sewage Water Reclamation



Illawarra Wastewater Reclamation Plant

Wollongong, Australia

Plant Information

• APPLICATION	Water reclamation to produce process water for copper refinery
• RAW WATER	Secondary effluent with industrial wastewater
• PERMEATE CAPACITY	20 MLD
• PRETREATMENT	Submerged MF membrane system
• RO MEMBRANE TYPE	Fouling Resistant RO membrane
• RO MEMBRANE MODEL	RE8040-FE[®]
• RO SYSTEM ARRAY	28:12:6 (Single pass, 3 array, 7 elements per pressure vessel)
• OEM	Veolia Water Solutions & Technologies Australia
• INSTALLATION	August 2007



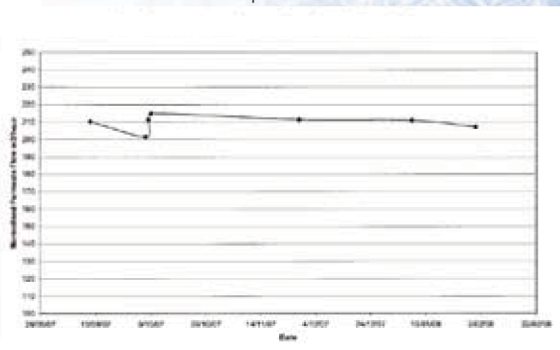
General Information

This system was built in November 2005 for Sydney Water. It was observed that there were difficulties in reducing the permeate flow due to high levels of organic foulants such as aromatic rings. It took only six months to reduce the flow by half of the initial permeate flow. To solve this problem, four types of elements from different manufacturers were tested at the site. Pilot test results showed that CSM's fouling resistant RO membrane, RE8040-FE[®], was most effective in increasing permeate flow showing minimum levels of fouling. Since being installed in August 2007, the RO systems are operating with no reports of technical issues. The amount of CIP was also decreased from every two weeks to taking place every four to five months.

Technical Information

(refer to graph)

Normalized permeate flow-rate



Pilot test results

