



## Technical Tours program 3<sup>rd</sup> AWA Water Reuse and Recycling Conference July 16-18, 2007, UNSW

The conference program includes two technical tours on the afternoon day 3 (July 18) to either (i) Sydney's Olympic Park and its state-of-the-art water recycling plant or (ii) the North Head Recycled Water Membrane Bioreactor Plant at the Sydney Water North Head STP.

### Option 1 - Water Reclamation and Management Scheme (WRAMS) in Sydney Olympic Park

The WRAMS is a large scale integrated urban water system incorporating (i) collection and treatment of sewage and stormwater (ii) supply of recycled water for non-drinking uses to all residents, commercial premises and sporting venues and (iii) irrigation of parklands and playing fields. WRAMS incorporates existing and emerging technologies in the area of biological treatment process, microfiltration and reverse osmosis. WRAMS operation, performance and monitoring is fully automated and continuously controlled by using highly advanced telemetry control systems. Further incremental improvements in recycled water infrastructure, research and development over time will advance technological performance, making this and future re-use schemes more efficient, reliable and economical.



Picture of the Sydney Olympic Park's Water Reclamation Plant (Courtesy of SOPA).

## Option 2 - North Head Recycled Water Membrane Bioreactor Plant at North Head STP

Sydney Water manages ten coastal treatment plants. The three largest are located at North Head, Bondi and Malabar and treat most of Sydney's sewage, discharging via deep ocean outfalls. The Malabar plant can discharge up to 456 ML/day of high-rate primary treated domestic wastewater. This represent of population equivalent of 1,690,000.

A Recycled Water Plant based on the Membrane Bioreactor (MBR) technology was installed for Sydney Water by CH2M Hill and John Young Kelvinhaugh and incorporates Memcor's proprietary membrane operating system (Memjet™). Commissioned in August 2005, the 2 ML/d MBR has performed very consistently, meeting all effluent treatment requirements, and achieving a high level of operational and mechanical flexibility with minimal operator attention.



Picture of the North Head's MBR plant (Courtesy of Sydney Water)

Note that the number of participants per technical tour is limited to 35 people. Please indicate your interest on the conference registration form.

The technical tours are possible thanks to the in-kind support of both Sydney Water and Sydney Olympic Park Authority.