

Water Infrastructure Group

Leading the way with MBR water recycling technology

Water Infrastructure Group supplies over 40% of Australia's Class A recycled water for residential and irrigation use. The group is also leading the way in the use of advanced membrane bioreactor technology to provide decentralised, high quality water recycling solutions for municipal and private projects.

The group is currently completing construction of a 1.1 ML/d MBR dry weather flow plant for Banana Shire Council in Moura, Queensland and has delivered a MBR plant for Byron Shire Council at Bangalow, NSW with a capacity of 850 kL/day dry weather flow that replaced the existing sewage treatment plant

Peter Everist, Water Infrastructure Group General Manager explained that MBR plants have a smaller footprint, better control of excess sludge and reduced overall treatment costs compared to traditional sewage treatment plants.

"MBR technology is a sustainable solution for small scale, localised treatment of wastewater. The membrane component of the process provides the option of producing very high quality recycled water that can be tailored to suit irrigation or residential use."

"Not only does this approach reduce the environmental impacts of sludge and wastewater effluent on land and waterways, it also creates a relatively secure supply of recycled water that frees up water resources for potable water supply and environmental flows."

"The small footprint of MBR plants also opens up other options like sewer mining. Instead of digging up roads and reserves to bring recycled water from treatment plants that are generally located on the fringes of our towns and cities, you can tap into existing sewers and treat the wastewater on site at the end user location," Peter said.

In Sydney, Water Infrastructure Group delivered a 650 kL/d MBR sewer mining plant for the Pennant Hills Golf Club. The project has won a number of environmental awards including an industry award for water management in New South Wales - a 2008 Sustainability Green Globe Award from the New South Wales Department of Environment & Climate Change.



Owen Jayne, Water Infrastructure Group Adelaide Manager said that water recycling is an increasingly urgent issue, particularly for golf courses which require hundreds of megalitres of water a year to maintain.

"New South Wales golf courses have been using various approaches over the last 25 years but this system provides the highest quality water used in a commercial golf club application and we expect it will encourage others to consider how they might secure their own water sources."

"The MBR plant at Pennant Hills will deliver 100 megalitres of Class A recycled water per year, every year."



“The use of MBR technology over conventional multi-step tertiary processes, enabled us to reduce the plant footprint so that it could be located in an inconspicuous central location hidden by existing land contours. The MBR process also realised significant cost savings on capital expenditure and over the 30 year design life of the plant will minimise power usage and chemical consumption for further savings.”

“Because we manufacture components such as skids and prefabricate plant modules in our dedicated workshop facility in Adelaide, we can fast track construction and installation. We are also able to retain tight control of quality standards and continually feed our real world knowledge of how to build and operate these plants into our design and manufacture processes. And of course, we are also able to deliver all this at a very competitive price,” Owen said.

More information: Leif Ericson – 03 9863 3503, lericson@wigroup.com.au



About Water Infrastructure Group

Water Infrastructure Group's unique combination of design, build, operate and maintenance services provides sole-source accountability for streamlined delivery of sustainable water infrastructure to meet community and business needs.

Our holistic approach to infrastructure delivery results in:

- Award winning innovation
- Reduced costs
- Guaranteed performance
- Individualised solutions
- Comprehensive environmental compliance
- Enhanced risk management

Water Infrastructure Group is an Australian leader in water recycling and Australia's largest supplier of Class A recycled water for farming and residential use. We have led the way with the introduction and regulatory approval of microfiltration technology for water recycling and our innovation and contributions to the water industry have been recognised by Australian and international excellence awards.

We have an extensive track record in the delivery of water and sewage treatment plants and we are one of Australia's leading infrastructure rehabilitation specialists, providing services such as pipeline inspection, assessment, linings, coatings and major valve work.

Some current projects from our portfolio include:

- Adelaide Desalination Pilot Plant
- Barwon Water Biosolids Management Project in Geelong
- Campaspe Water Reclamation Scheme in Echuca
- Eastern Irrigation Scheme in Melbourne
- Mangawhai EcoCare Project in New Zealand
- Moura Wastewater Treatment Plant in Queensland
- Surbiton Park Recycled Water Plant in Melbourne
- Virginia Pipeline Scheme in Adelaide

Water Infrastructure Group combines the complementary skills of the former Earth Tech water projects group with Tyco's Water Technology Australia and Water Services businesses to deliver an expanded range of services that cater for the needs of customers and current developments in the water industry.

Water Infrastructure Group is a Tyco International Ltd company. Tyco is a diversified, global company that provides vital products and services to customers in more than 60 countries and has 118,000 employees worldwide. More information on Tyco can be found at www.tyco.com.

