

# Gallery Walk Toilets, Scenic Rim Region, QLD

## *Upgrade of a failing system for toilet reuse*

Situated on Mt Tamborine in the Scenic Rim Region, Gallery Walk is one of the premier Arts and Craft centres of South-East Queensland. The collection of galleries and craft shops attracts hundreds of visitors each and every week.

The single public toilet block servicing the area had been served for the last eight years by a sand filter treatment system, the performance of which over time had slipped to the point of almost-complete failure, with water recycled from the system a very low quality. Recognising this, Scenic Rim Regional Council called tenders for the upgrade of the system, and Alliance Water Solutions were successful in their bid to provide a solution.

*"We needed to consider a design that would meet the high demands in terms of wastewater flow and strength from the site, yet one with little impact on the surrounding area."* Ross Atkinson, Alliance Water Solutions

Key considerations for the Gallery Walk project were as follows;

- A system with very low impact in terms of odour and noise, given the proximity to tourist attractions
- A system with the ability to cater for huge fluctuations in loading
- A system of proven technologies to provide a consistent, reliable source of Class A+ water



**An Orenco AX60 textile filter, multiple-barrier disinfection process and captive dispersal system has replaced the failing sand filter at Gallery Walk**



**A 4-stage disinfection process has been developed at Gallery Walk for Class A+ reuse**

Rather than replacing the media in the existing sand filter, the solution proposed was an entirely new system, utilising where possible existing infrastructure but with entirely new treatment elements. A three-stage solution was installed by Alliance Water Solutions;

- Passive primary treatment using the existing treatment tanks
- Secondary treatment through Orenco's AdvanTex textile filters
- Quadruple-barrier disinfection with membranes, ozone, chlorination and UV for full public health protection.

Taking the innovation one step further, Alliance also developed a captive dispersal system for the excess water not recycled to the toilets; as such Gallery Walk is one of the few No Release treatment systems in operation in Queensland.

*"The system has to be robust enough to cope with low to no flows in the winter through to peaks of 8000 litres a day for up to six weeks in summer",* Daryl Crank, Scenic Rim RC

<b>Designed By</b>	Alliance Water Solutions & InnoFlow Australia	
<b>Design Flow</b>	Average flow 4,000 litres per day, up to 8,000 litres per day peak	
<b>Installed By</b>	Alliance Water Solutions	
<b>Client</b>	Scenic Rim Regional Council	
<b>Local Authority</b>	Scenic Rim Regional Council	
<b>Commissioned</b>	January 2011	
<b>System performance (actual results from grab sample, 16/2/11)</b>	BOD	4 mg/L
	TSS	2 mg/L
	E.Coli	<1 cfu/100mL
	Pathogens	<1 cfu/100mL