

Value	A\$65,000,000
Start Date	August 2008
Completion	November 2009
Client	Sydney Water



Western Sydney Recycled Water Initiative

WESTERN SYDNEY, AUSTRALIA

McConnell Dowell, as part of the Deerubbin WaterFutures Consortium, were responsible for the design and construction of the Western Sydney Recycled Water Scheme, a project designed to provide environmental flows to the Hawkesbury-Nepean River System and highly treated recycled water for industry and new homes in Sydney's western suburbs.

Major components of the work included the design and construction of an Advanced Water Treatment Plant at the St Marys Sewage Treatment Plant (STP) site for the treatment of tertiary treated effluent from Quakers Hill, Penrith and St Marys STPs.

The plant produces 50 ML/day of highly treated recycled water for discharge to the Hawkesbury-Nepean River downstream of Penrith Weir, and approximately 8 ML/day of concentrate (brine generated from the treatment process) discharged to the Northern Suburbs Ocean Outfall Sewer (NSOOS) near Dundas.

Other works included a:

- 32.4 km pipeline (29.8 km constructed by dig and lay, 2.5 km by HDD boring);
- 450 mm dia 8 km pipeline for the transfer of tertiary treatment effluent including new pump station and buffer storage within Penrith STP;
- 450 mm dia 12 km pipeline for the transfer of tertiary treated effluent including new pump station with Quakers Hill STP;
- 600 mm dia 8 km pipeline for the transfer of recycled water produced by the plant from St Mary's to Penrith STP; and a

300 mm dia 12 km pipeline for the transfer of concentrate from the St Mary's to Quakers Hill STP, including new pump station and buffer storage within the Plant site.