



Griffith Water Reclamation Plant MBR

Griffith, NSW, Australia

Griffith is a thriving town in the Murrumbidgee Irrigation area. The city's trickling filter wastewater treatment plant cannot meet new stringent discharge licence conditions, and requires a major upgrade or replacement.

HydroScience has investigated options for a new 10.5 ML /day (50,000 EP) water reclamation plant that will minimise the impact on the environment, eliminate odours from the plant and produce water suitable for reuse throughout the city and for agricultural irrigation. The treatment options investigated included an immersed membrane bioreactor (MBR) and an intermittent conventional plant (IDAL) with sand filters. Assessment was done using triple bottom line (TBL) criteria.

Following the investigation, Griffith City Council resolved to proceed with an MBR treatment plant as recommended by HydroScience, and commissioned HydroScience to complete the concept design and review of environmental factors (REF) for the upgraded plant. As part of this stage, HydroScience prepared tender documents for membrane filtration system and assisted Griffith City Council in membrane selection.

Some of the existing assets, including the inlet works and primary sedimentation tanks, will be retained to reduce the cost and for effective management of wet weather flows.

The new components include a 4-train membrane bioreactor, RAS tank and RAS pumping station, UV disinfection, recycled water system, sludge dewatering, plant building operations building and a control system including SCADA.

HydroScience was subsequently commissioned by Griffith City Council to complete the detailed design and documentation of the treatment plant. The team, which includes HydroScience Engineers and HydroScience Operations, will also be responsible for commissioning and operator training.

Project Overview

Highlights

- ❖ MBR Technology
- ❖ 50,000 EP, 10.5 ML/day
- ❖ Concept Design, REF, Detailed Design, Documentation and Commissioning
- ❖ Largest MBR Plant in NSW
- ❖ Effective management of wet weather flows using existing assets

Details

Completion Date: Design 2009
Commissioning expected 2011
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