

Kingaroy Wastewater Treatment Plant Upgrade

Project Reference Sheet



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PROJECT OVERVIEW

To provide new wastewater treatment plant facilities to increase the available wastewater treatment capacity and to reduce the load of nutrients that is discharged.

CLIENT NAME

South Burnett Regional Council

TOTAL VALUE OF PROJECT

\$26.3M

CONTRACT TYPE

Design & Construct (D&C)

PROJECT DURATION

2014 to 2016

DETAILED SCOPE AND DESCRIPTION

The major innovation for the project was the selection of the Nereda® process and in an Australian first, a granular activated sludge process has been implemented in a full scale municipal wastewater treatment plant. Aquatec Maxcon Pty Ltd (AQM) as the Australian Licensee was selected to deliver this groundbreaking design and construct project.

This is also the first Nereda® Plant worldwide with Aerobic Digestion biosolids management which is quite common in Australia but not overseas.

The full scope of ATC Engineers (previously AT Consulting) involvement in the project included:

- Project Management and Environmental Approvals
- Completion of the Master Plan & Development Approvals
- Leading negotiations with DES to finalise the discharge permit conditions
- Grant Acquisition and Management \$10M Royalties for Region
- Review of process options including life cycle costing & selection of preferred option
- Development of concept design and layouts
- Detailed process and mechanical design coordination
- Major equipment selection & Hydraulic design
- Risk management including design reviews, CHAIR and HAZOP workshops
- Tender document preparation
- ECI participation
- Tender review and technical assessment
- Construction management for Principal
- Leadership and management of the commissioning process
- Ongoing process technical support

PROJECT OUTCOMES

The effluent discharged from the reactor now provides the Kingaroy Community with water via recycled water reclamation. Up to half of the resultant liquid is reused for sporting fields and the golf course in the vicinity. The process has also significantly improved the quality of effluent release from the plant, benefitting the local environment.