

CASE STUDY

PROJECT	SEWAGE TREATMENT FOR MINING CAMP
PRODUCT	Activated Sludge Bioreactor (ASBR)
INDUSTRY	Mining
LOCATION	Midwest Region, Western Australia



BACKGROUND

The largest copper producer in Western Australia needed to replace their existing containerised sewage treatment plant as it was badly corroded and had deteriorated beyond economic repair.

Whilst the existing plant was only 5 years old the external structure was badly corroded and the client was concerned that there would be a major failure. The material selection for the biological tank was the main issue where mild steel with only a standard paint specification was used, but as sewage is highly corrosive this had not stood the test of time. MAK Water's 15 year design life using FRP tanks was selected to provide a complete design, manufacture and installation package for the replacement sewage treatment plant.

MAK Water worked closely with the client to design a fit for purpose, long term solution that met the required treated effluent quality.

SOLUTION

Modular Activated Sludge Bioreactor (ASBR) plant to treat 50 m³ per day of domestic strength sewage to Class C Recycled Water for onsite reuse via irrigation.

MAK Water KEY SOLUTIONS

- Corrosion resistant fibre-reinforced plastic (FRP) bioreactor with internal plant room providing 15 year plant design life
- Class C effluent for low risk reuse applications
- Enhanced nutrient removal
- Fast 10 week lead time for plant delivery
- Onsite installation, commissioning and operator training
- Ongoing service and maintenance of ASBR and other existing water treatment equipment onsite



MAK Water modular ASBR plant installed onsite

RESULTS AND BENEFITS

- **Safe, Compliant Effluent.** Designed around the site specific influent quality to meet the required Class C treated effluent quality
- **Technical Support.** Expert advice and consultation with all parties throughout the process and ongoing plant service and maintenance by MAK Water
- **Turnkey Solution.** Complete design, manufacture and installation package
- **Fast Delivery.** The manufacturing process was fast tracked to achieve client project timeline



MAK Water ASBR plant with integral plant room