

# CASE STUDY



**PROJECT** REMOTE CAMP WATER AND WASTE WATER TREATMENT

**PRODUCT** Brackish Water Reverse Osmosis (BWRO) and Moving Bed Bioreactor Plus (MBBR+)

**INDUSTRY** Mining

**LOCATION** Goldfields, Western Australia

## BACKGROUND

Sulphate of Potash (SOP) was identified by Geoscience Australia as a critical mineral for the country's future; however, prior to 2021, Australia was entirely dependent upon imported product. Australia's first sulphate of potash (SOP) project, located in the Goldfields region of Western Australia, reached practical completion in July 2021, and will produce 245kt per annum.

MAK Water was originally approached by the client's engineering consultant to assist with equipment selection and pricing during the feasibility study phase. Once project finance was secured, the client engaged MAK Water directly to design, manufacture, install and commission the potable water treatment plant (PWTP) and sewage treatment plant (STP) to service the 350-room accommodation village.

## SOLUTION

Turnkey supply and installation of a containerised BWRO plant and a packaged MBBR+ plant, complete with all storage tanks, interconnecting piping and cabling.

### BWRO

- DMI-65 media filtration for iron and manganese removal
- SS316 high pressure pipework
- Premium instrumentation
- ClearAccess™ Remote Monitoring & Control

### MBBR+

- Class A (Medium Risk) treated effluent for onsite reuse
- Enhanced nutrient removal
- Standpipe for tanker truck filling (effluent reuse)
- Premium instrumentation
- ClearAccess™ Remote Monitoring & Control

### SCOPE

- Turnkey supply and installation
- Operator training
- 2-year service agreement with remote monitoring

## RESULTS AND BENEFITS

- **Custom design.** Each plant was custom designed to suit the project requirements and site conditions.
- **Turnkey solution.** MAK Water took responsibility for all aspects, from design to plant commissioning.
- **Compliance.** Enhanced nutrient removal ensures compliance with environmental regulations.
- **Operational Support.** 2 year extended warranty was provided as part of a 2-year service agreement.



*MAK Water containerised SWRO plant installed onsite*



*Internal view of the containerised SWRO plant*