

# CASE STUDY

**PROJECT** REHABILITATION OF REMOTE ISLAND SITE

**PRODUCT** Sea Water Reverse Osmosis (SWRO) - Hire

**INDUSTRY** Oil and Gas

**LOCATION** North-west, Western Australia



## BACKGROUND

An oil & gas operation was rehabilitating a decommissioned site on a remote island off the northern Western Australian coast. They required fresh water for the irrigation of planted seedlings to help them establish and restore the environment. However, the arid island had no natural fresh water source, other than sporadic rainfall which was not sufficient to support the rehabilitation works.

The native seedlings don't require irrigation once they've established their roots, thus, this customer's need for a seawater desalination plant was only temporary, making the purchase a desalination plant an undesirable capital outlay.

Compounding factors in this challenge were the logistics of getting the plant to the very remote site, and the island's status as a Class C nature reserve, requiring strict quarantine compliance and operational reliability with minimal risk to the environment.

## SOLUTION

Containerised Sea Water Reverse Osmosis (SWRO) with Multimedia Filter (MMF) pre-filtration to produce 250 m<sup>3</sup>/day water for irrigation & site rehabilitation. Plant was rapidly adapted and deployed from MAK Water's extensive hire fleet.

## MAK WATER KEY SOLUTIONS

- Containerised (1 x 40') solution for easy transport & installation
- Multimedia and cartridge filtration
- Chemical dosing: pH adjustment, antiscalant,
- Onsite plant commissioning and operator training
- Service & maintenance plan for duration of the hire.
- ClearAccess remote access & technical support
- Custom sea water inlet design.



*MAK Water containerised SWRO plant installed onsite*

## RESULTS AND BENEFITS

- **Compliance** Achieves required compliance with client's water requirements as well as compliance for operation in the strictly protected nature reserve.
- **Reliability.** Designed and built in Australia for local conditions. Remote access for rapid diagnostics, and North-West based technician minimised risk of breakdowns and minimised response times in case of any unplanned event
- **Nearby Support.** Expert advice and consultation from a MAK Water technician based in Karratha.
- **Minimised CAPEX.** Hiring a water treatment plant is a great option for temporary projects where purchasing major equipment for a short-term need doesn't make sense.



*Custom seawater inlet design installed on existing jetty.*