

# CASE STUDY

**PROJECT** TEMPORARY WATER SUPPLY FOR DEFENCE

**PRODUCT** Seawater Reverse Osmosis (SWRO)

**INDUSTRY** Defence

**LOCATION** Manus Island, Papua New Guinea



## BACKGROUND

The Lombrum Joint Initiative is a major redevelopment of the Lombrum Naval Base on Manus Island, Papua New Guinea (PNG). Officially opened in August 2025, it represents Australia's largest security infrastructure project in the Pacific. As part of this national defence strategy, MAK Water was engaged to design and build a water treatment plant to supply the base.

While the main plant was under construction, the client required a rapid deployment solution to ensure a reliable potable water supply, with the Pacific Ocean identified as the most dependable source. The lack of an interim water solution posed risks to operational readiness, project timelines, and compliance with essential water quality standards.

## SOLUTION

MAK Water collaborated closely with the project delivery team to provide a fast, robust and fully supported temporary potable water solution. One of MAK Water's hire seawater reverse osmosis (SWRO) plants was rapidly mobilised to site, ensuring continuity of supply while the permanent plant was being constructed. Remote monitoring and local service support enabled high reliability and optimised system performance during the short-term deployment.

## MAK WATER KEY SOLUTIONS

- Containerised SWRO plant
- Supported by the MAK Water service team to ensure reliability
- Remote monitoring using ClearAccess™
- Consumable supply to ensure essential chemicals for operation and cleaning

## RESULTS AND BENEFITS

- **Sustainability.** Delivered a reliable potable water supply sourced from the Pacific Ocean, supporting continuous operations.
- **Operational reliability.** Remote monitoring and service-team support ensured system uptime and proactive issue resolution.
- **Cost and time efficiency.** Enabled project works to continue without delays linked to water availability.
- **Compliance.** Provided consistent, high-quality treated water meeting strict defence requirements.



*Containerised SWRO plant onsite*



*Internal view of the SWRO plant*