

ANOTHER EPCO TREATMENT PLANT DELIVERING HIGH QUALITY DISCHARGE IN THE GREAT BARRIER REEF SYSTEM

CASE STUDY



THE CLIENT

Masig Island is a coral cay island located in the Torres Straits and at the top end of the Great Barrier Reef.

OVERVIEW

Due to the pristine environment and tight discharge water quality required, an advanced nutrient removal Roadtrain® Packaged Plant was installed.

The treatment system included:

- Equalisation Tanks
- Fine Screening for solids removal
- Primary Clarifier
- Anoxic Reactor
- Rotating Biological Contactor (RBC)
- De-aeration
- Secondary Clarifier
- Tertiary Filtration

- Chem-P Removal
- UV Disinfection
- Sludge Drying Beds
- Controls and SCADA

A robust solution was required as the site is predominately remote operated. Based on previous installations in similar locations, Hydroflux Epco provided a sewage treatment system that utilised RBC technology configured in a MLE process train.

Pre-treatment of the sewage consists of solids screening and primary sedimentation. Roadtrain® RBC technology provides a simple and effective method for treatment of carbon and nitrogen in wastewater streams. As part of the nitrogen removal process an anoxic zone was included in the process to allow for denitrification.

Phosphorous is chemically precipitated with the addition of a metal coagulant and the final effluent is disinfected using UV.



Item	Value
Capacity	135 m3/d
Process	Rotating Biological Contactor
TN Limit	15 mg/L
TP Limit	10 mg/L
Faecal Coliforms	150 cfu/100mL
Year	2007