

ADVANCED ROADTRAIN® PACKAGED SEWAGE SYSTEM FOR WARRABER ISLAND

CASE STUDY

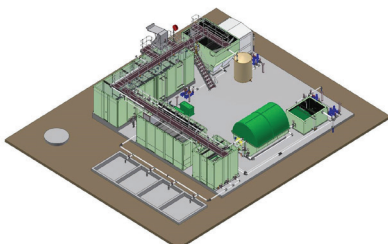


Based on successful Roadtrain® installations at Masig and Erub Is, a 100 m3/d system was installed at Mabuig Island, located in the Torres Straits.

The Roadtrain® treatment system included:

- Mixed Equalisation Tank
- Fine Screening for solids removal
- Pre-Anoxic zone
- Rotating Biological Contactor
- De-oxygenation tank
- Secondary Clarification
- Chem P removal
- UV Disinfection
- Sludge Digestion
- Sludge Drying Beds
- Controls and SCADA

The plant is to be protected by a primary settling tank,



will provide for primary removal of BOD, Suspended solids and TOG.

The biological system consists of a pre-anoxic tank, for nitrate removal, a single RBC unit equipped with 3 internal cascades, for BOD and ammonia oxidation, and a de-oxygenation tank for the removal of residual oxygen from the RBC unit, generating a low oxygen feed for the pre-anoxic tank.

Effluent from the RBC unit flows to the de-oxygenation tank, which allows the residual oxygen from the RBC reactors to be dissipated.

This deoxygenated sewage is then recycled to the anoxic tank, where the nitrates generated in the RBC reactors is reduced to nitrogen gas.

The systems are ideal for remote locations, where a robust process and mechanical design along with minimal operator attendance is required.

Item	Value
Capacity	76 m3/d
Process	RBC Based
BOD Limit	20 mg/L
TSS Limit	30 mg/L
TN Limit	15 mg/L 50%ile
TP Limit	10 mg/L 50%ile
Faecal Coliforms	150 cfu/100mL
Year	2006