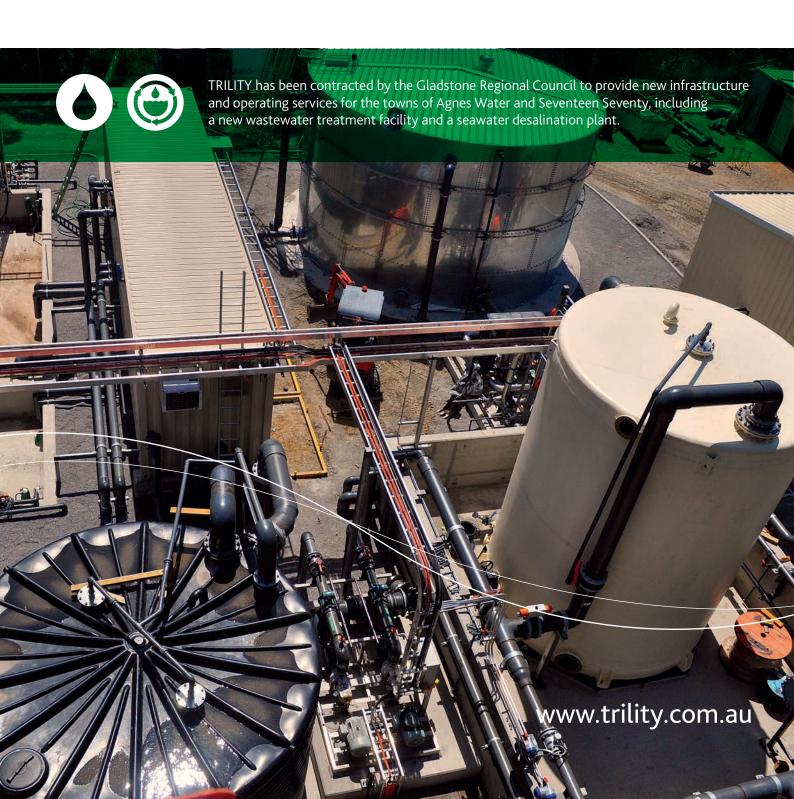
### Agnes Water and Seventeen Seventy Integrated Water Project



# Delivering desalination and wastewater solutions to growing regional communities



## The integrated water project services both townships of Agnes Water and Seventeen Seventy, providing alternative security of supply, including the reduction of reliance on local bores for drinking water.

The project comprises the Design, Build, Operations and Maintenance (DBOM) of a new seawater desalination plant including the intake and outfall and other associated infrastructure, together with a new Wastewater Treatment Plant (WWTP).

The desalination plant has an initial design capacity of 1.5 ML/d and is designed with the potential of being expanded to 7.5 ML/d. In addition to this the plant can also treat a further 0.5 ML/d using raw water sourced from ground water bores. The WWTP has a design capacity of 0.6 ML/d.

TRILITY designed and constructed Seventeen Seventy's water reticulation system, including a 1.4ML reservoir and the sewer system.

TRILITY is contracted to operate and maintain the new desalination plant and the new WWTP for ten years as well as the existing facilities during the design and construction phase of the new facilities. These existing facilities included two ground water source water treatment plants and a lagoon sewage treatment system.



### Who

Gladstone Regional Council was formed in March 2008 and includes the former Calliope Shire Council, Gladstone City Council, Miriam Vale Shire Council and Gladstone Calliope Aerodrome Board.

### What

The full design, build and operation of the seawater Reverse Osmosis (RO) desalination plant, WTPs, wastewater treatment assets, water, wastewater and irrigation networks.

### Where

Agnes Water and Seventeen Seventy, located at the southern end of the Great Barrier Reef at the spot where Captain Cook first landed in Queensland. The entire township is heritage listed and as such any new infrastructure requires particular environmental sensitivity and care.

### Why

Water sources within the Agnes Water and Seventeen Seventy catchments are severely limited and studies have indicated the existing water supply would only be viable as a sustainable source for a few more years. The client sought a partner to provide an holistic approach to water delivery and management.

### Award:

**2013** The Agnes Water and Seventeen Seventy Integrated Water Project was awarded the IPWEAQ Excellence Award for Design and Construction of a Private/Government project over \$10 million.

### **Snapshot**

Client	Gladstone Regional Council
Type of Contract	Design, Build, Operate and Maintain (DBOM)
Facilities	Existing: Two water treatment plants and a lagoon sewage treatment system New: Seawater desalination plant and a wastewater treatment plant
Technology	Water treatment - seawater desalination, reverse osmosis and conventional treatment for bore water Wastewater – biological nutrient removal
Design Capacity	Wastewater: 0.6 ML/d Desalination: 1.5 ML/d (expandable) + 0.5 ML/d from bore water
Term	10 years
Capital Cost	c. \$36m





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