

TASWATER APPLYING SUSTAINABLE SOLUTIONS TO PRODUCE LIFE'S ESSENTIAL RESOURCE

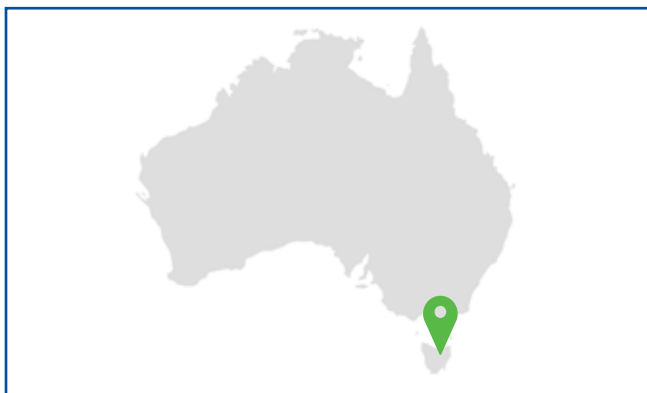
RINGAROOMA, AUSTRALIA



DESIGN CAPACITY:
60 M³/HR



5,000 RESIDENTS



PROBLEMS

- ◆ Challenge of declining quality of surface water due to increased levels of Natural Organic Matter (NOM) in local water sources.
- ◆ Residents served by TasWater were reporting water quality issues and calling for a solution.
- ◆ Additional pressure to sustainably meet high quality standards set by the Tasmanian Health Regulation and Australian Drinking Water Guidelines.

SOLUTIONS

- ◆ Pentair® X-Flow™ Hollow-fiber Nanofiltration (HFNano) Membranes in a full scale system installed in April 2017.
- ◆ Helps enable the rejection of trace organic compounds, heavy metals, and viruses at a lower energy demand than reverse osmosis.
- ◆ Support in flexibility with a scalable system that comes with low chemicals and power consumption.
- ◆ Membranes certified for bacteria and viruses removal (LOG 4 virus and LOG 6 bacteria removal)¹.
- ◆ Pretreatment applied in a simple manner with a strainer.

"The upgrade will mean that more Tasmanian households will have access to water they can drink straight from the tap."

Mike Brewster
CEO, TasWater



PROJECT RESULTS*

- ◆ The water improvements help enable community growth by encouraging tourism and supporting other industries, while giving local businesses a boost.
 - ◆ More Tasmanian households are able to enjoy drinking water straight from the tap.
 - ◆ Nanofiltration backwash waste is able to be reused as irrigation water, eliminating the need for wastewater treatment or sewer connection.
 - ◆ Treatment is effectively retaining NOM without coagulation and with minimal hardness retention.
 - ◆ High permeate quality² and minimal brine waste¹ are achieved.
- 1 Heidfors, I.; Vredembregt, L.H.J.; Holmes, A.; van Es, M.B. Pilot Testing with Hollow Fiber Nano Filtration Membranes for Removal of NOM from Surface Water in Sweden. In Proceedings of the NOM 6—IWA Specialist Conference on Natural Organic Matter in Water, Malmö, Sweden, 7–10 September 2015.
 - 2 Registered at nsf.org as Nanofiltration device, HFW1000. Certified by NSF for Cryptosporidium removal efficiency, with a mean log removal value of 6.32 log, and minimum LRV of 5.75 log. The maximum certified filtration flux rate is 23.5 gfd. Also tested for virus removal efficiency, with a mean LRV of 5.54 and a minimum of 5.44 log.

* actual results and performance may vary based upon site and operating conditions.

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**REDUCED CONSUMPTION
OF BOTTLED WATER**



BEFORE



AFTER



**REDUCED COSTS
FOR WATER
TREATMENT**



BEFORE



AFTER

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