

MEDIA RELEASE

February 7, 2025

DESALINATED WATER – YOUR QUESTIONS ANSWERED

As Norfolk Island continues to sit at drought response level HIGH, Norfolk Island Regional Council has released a series of FAQs on the website to answer questions related to desalinated water.

Council acknowledges community concerns about the quality of the water and its impacts in terms of the surrounding marine park, and cost of producing the water, among other questions.

We've answered three of the most asked FAQs below, and residents are encouraged to follow the link below to read the full list, and to view the drought response levels definitions.

Is desalinated water safe?

Yes. Reverse Osmosis desalination is one the safest and most effective way to produce fresh water. After the filtering process, there are two streams: one brine and the other freshwater. The brine solution is returned to the sea.

Daily system monitoring of desalination production performance is carried out, along with regular testing to monitor quality of water and brine discharge.

Does the process harm the marine environment?

As important as water security is for our community, protecting our marine environment is of equal importance. The location of the desal was approved by Marine Parks as the wave action in that area would quickly disperse the brine by-product.

The desal system only produces 20,000 litres of fresh water in a 24-hour period so the brine is a drop in the ocean (pardon the pun) which is roughly equivalent to 75 household buckets per hour of operation.

After careful examination of the system processes, the Director of National Parks, Marine and Island Parks granted a Marine Park Activity Permit to carry out works associated with installation and operation of a desalination plant under sections 354-354A of the Environment Protection and Biodiversity Conservation Act 1999 and Regulation 12.11 of the Environment Protection & Biodiversity Conservation Regulations 2000.

Brine discharge is monitored and tested in accordance with the Marine Parks permit.

Is running the desalination plant expensive?

While desalinated water is more expensive than traditional fresh water sources, it is currently a vital key in Norfolk Island's **Drought Response Level High**.

The costs come from energy usage, infrastructure, and maintenance.

Energy Consumption: Desalination requires a significant amount of energy, especially in the reverse osmosis process, which uses high pressure to force the seawater through membranes to remove salt and other impurities. The energy cost can make up a large portion of the total operating expenses.

Infrastructure and Maintenance: The plant itself, as well as the pipes, pumps, and other equipment needed to process and distribute the water, is expensive to install and maintain. The membranes used in reverse osmosis need to be replaced periodically.

The information and more can be found under Drought Response at <https://www.nirc.gov.au/Your-council/Council-services/Drought-Response> or from the Helpful Links panel on the homepage.

ENDS