Belmont Desalination Plant

Project update - July 2025

Hunter Water is building a desalination plant at Belmont so we can continue to meet the needs of our customers now and in the future.

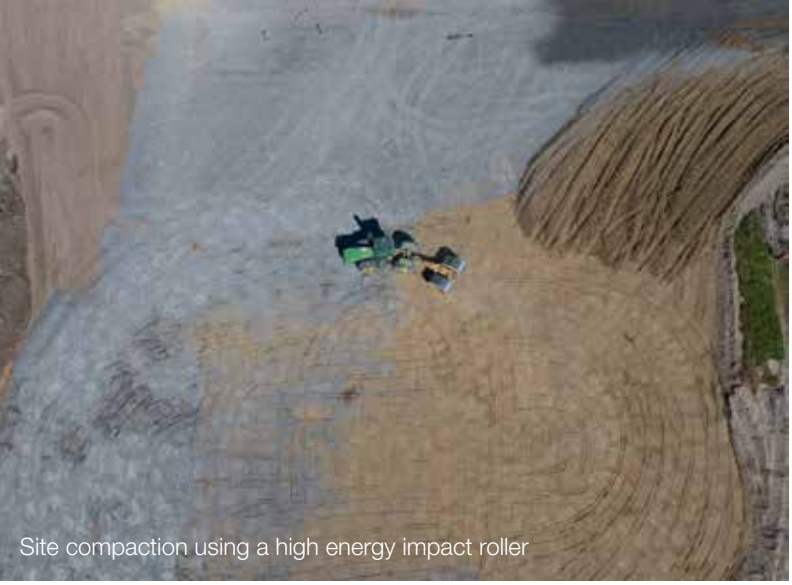
As one of the few water source options not dependent on rainfall, desalination was identified in the 2022 Lower Hunter Water Security Plan as a key action to help us to continue to support our customers and communities with a safe and reliable water source regardless of changes in weather or climate.

With planning approval in place, our delivery partner, John Holland, started construction in January 2025.

On completion, the plant will form part of the Lower Hunter's water supply system for the future and will:

- ✓ add up to 30 million litres per day of rainfall-independent water to our supply system
- ✓ increase the diversity of the region's water supply system
- ✓ help to reduce the rate that storages deplete during drought by around six months
- ✓ provide a flexible water supply source where production can be ramped up and down as needed.

Find out more hunterwater.com.au/desal



Site compaction using a high energy impact roller

Piling for onshore seawater intake structure

Progress update

Major work is underway on the Belmont Desalination Plant. Over the past six months we have carried out a range of activities including:

- vegetation clearing and stripping of topsoil
- receiving 60,000 tonnes of imported material and moving earth from cut areas to fill areas
- levelling and compacting the site
- construction of site offices and facilities
- fencing the construction area
- changes to traffic and parking arrangements in nearby residential streets
- adjustments to the intersection of Ocean Park Road and the Fernleigh Awabakal Shared Track to improve safety for pedestrians and cyclists
- installation of 39 concrete piles and jet grouting to stabilise the area for excavation of the onshore seawater intake structure.

Upcoming activities

Some other key activities to start this year will include:

- trenching and installing underground services for the main plant building
- pouring the concrete slab foundation for the main building and starting to install the frame
- excavating for the launch shaft or starting pit, in readiness to begin tunnelling to the direct ocean intake
- marine works using a jack-up barge (pictured) to help build the direct ocean intake structure
- tunnelling from the launch shaft to the ocean intake structure.

Artist impression - jack-up barge. Indicative only.

Did you know...

Our water levels drop faster than most other major Australian urban centres during hot, dry periods because we have shallow water storages and high evaporation rates.

Where does our drinking water come from?

We operate a number of different dams, sandbeds and rivers throughout the Lower Hunter.

While most drinking water comes from our Grahamstown and Chichester dams, water is also drawn from sandbeds at Tomago and Tomaree, and from the Paterson and Allyn Rivers.

We're introducing desalinated water as an additional source into our water supply system so we're prepared for population growth and future climate uncertainty.

Smoking Ceremony

Ahead of work on the Belmont Desalination Plant ramping up, our construction partner, John Holland, hosted a smoking ceremony carried out by Bahtabah Local Aboriginal Land Council.

The smoking ceremony was held to cleanse the site and repel bad spirits, and each member of the team was invited to forge their own connection through this ritual. The team also learnt about local Aboriginal artefacts including stone axes, shields and boomerangs, which were also on display.

Green construction in action

In a green twist to construction, around 165 native spinifex and pigface plants have been carefully uprooted from the Belmont Desalination Plant site and replanted on nearby dunes.

The rehoming effort, led by John Holland, helps protect coastal ecosystems while making way for this vital infrastructure. These hardy little natives help stabilise sand and support local wildlife.

Community BBQ a sizzling success!

The Hunter Water project team joined with John Holland on Saturday 5 April 2025 to host a pop-up community information session.

The team spoke with a number of nearby residents and passersby on the Fernleigh Awabakal Shared Track (FAST) about progress on the desalination plant, highlighting that construction will be ramping up over the next few months.

Connection with Clontarf Academy

Around 60 Year 11 and 12 students from seven schools across the Hunter met with the John Holland team in a ‘speed dating’ style event to learn more about career opportunities in construction.

One of the guest speakers, former professional rugby league footballer Kurt Gidley shared a quote from one of his former coaches - “Hard work beats talent when talent doesn’t want to work hard”.

Supporting a circular economy by reusing waste

John Holland is proud to be leading the way in sustainable construction by finding smart ways to reduce environmental impact. This year’s theme for World Environment Day was ‘Beat Plastic Pollution’ and John Holland is making a difference by using:

- hi-vis vests made from recycled textiles
- silt socks made from recycled banner mesh filled with recycled gravel
- wheel stops for the site carpark repurposed from recycled plastic pipes from the local mining industry
- high strength Post Prime Plastic® made from recycled plastic bar chairs to support steel reinforcement for concrete pours.

Belmont Desalination Plant

Project history & timeline

2014
Lower Hunter Water Plan identifies desalination as drought response measure

2014-2017
Initial planning and site selection

2018-2019
Develop concept design and Environmental Impact Statement

2019
Public exhibition of Environmental Impact Statement

2020
Submissions considered and scope changed
Public exhibition of Environmental Impact Statement Amendment Report
Response to submissions

2021
Planning approval for drought response desalination plant

2022
Lower Hunter Water Security Plan released – identifies a permanent desalination plant as a key measure for securing our water supply

2022-2023
Planning investigations for a permanent desalination plant

2024
Modification to Environmental Impact Statement on public exhibition
Response to submissions
Planning approval for permanent desalination plant

2025
Construction starts

We are here

2025-2027
- ✓ Site establishment
- ✓ Earthworks to raise plant site
- – Building main plant and ancillary buildings
- – Tunnelling and marine works
- – Testing and commissioning

2028
Desalination plant begins operating

Facts and stats

60,000 tonnes of fill imported to site

5 turtles and **8** snakes relocated

276 pieces will be used for the 814m pipeline connecting the onshore intake pump to the direct ocean intake

415 people inducted to site

165 native plants relocated from the construction site to nearby dunes

1,500 tonnes of reinforcing steel will be used on the project

Belmont desalination plant construction site - June 2025

Thirsty for more information

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