PROJECT UPDATE

Te Whare Wai Para Nuku
Moa Point Sludge Minimisation Facility

March 2025

NEWS & PROGRESS

Since December last year, you will have seen big changes on site.

The impressive Main Process Building has emerged – one, 10 to 12 metre long, 11 tonne girder, at a time.
The structure is now standing at around half its final height of 26 metres - equivalent to an eight-storey building.

The process involves placing, or as engineers say ‘standing’, a total of 600 tonnes of structural steel members using a tower crane.
As the structure grows, inside

a second crew is preparing and pouring the concrete floors.
A third crew of painters is also working on parts of the building that have been wrapped. This helps prevent dust and other debris getting on the protective coating they are applying to the steel prior to cladding.
Having three crews working simultaneously helps the project progress efficiently despite the challenges of our windy location, which can limit how often the crane can be used to stand the steel.

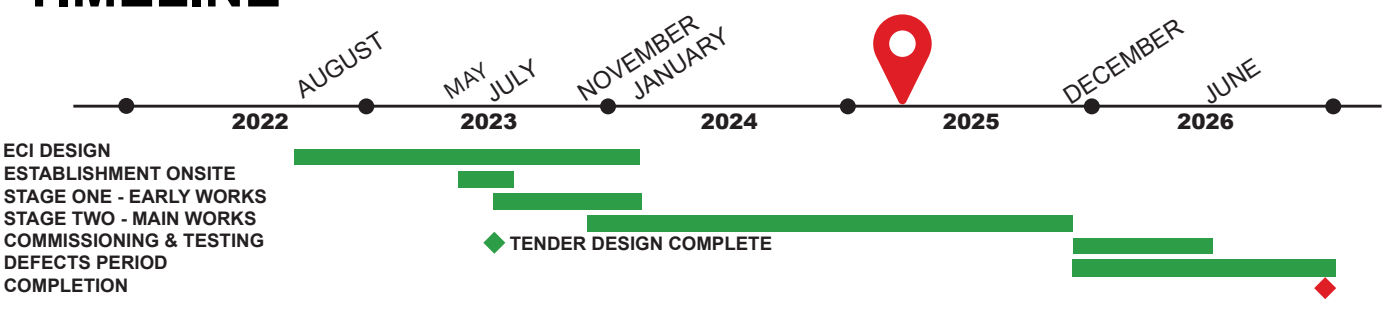
Meanwhile on the southern side of the site, now the two concrete anaerobic digester tanks are complete, and the tower crane has been removed. Each tank was constructed in four metre concrete sections or ‘jumps’.

The 3,500 cubic metre tanks have been successfully water tested to ensure there are no leaks.

We saved 3,500 cubic litres of water during the tank testing by reusing the water from the first tank in the second tank test.

The Main Process Building is partially covered in protective wrap

TIMELINE



Absolutely Positively Wellington City Council
Me Heke Ki Pōneke

McCONNELL DOWELL
CREATIVE CONSTRUCTION™

HEB construction
together @ VINCI

Beca

What's happening

Work will continue on construction of the main building including standing more steel, pouring concrete floors and applying protective coatings.
Meanwhile, detailed work is underway around on the two anaerobic digester tanks. This will start with pouring concrete around the bases, then construction of the central steel access/maintenance ladder and roof platforms and preparing bases for the pumps and pipework that will be installed later in the year.

Complex pipework, valves and machinery is being installed inside the plant.

What's coming up

A lot of new specialist equipment for the facility will also be arriving on site from overseas soon. Wherever possible we source products and services from New Zealand, but many are unavailable here.
New arrivals include four fibreglass tanks from the Middle East that will treat the odourous gases from the process, boilers and gas engines to turn the plant's biogas into electricity, a thermal dryer from Germany, and silos from Italy.

World-first welding method

Revolutionary Kiwi spiral-welding technology is being used to fabricate five large stainless-steel tanks on site that will be used in the sludge dewatering process.

Traditionally fabricating large stainless-steel tanks on site is complex and costly. It involves welding separate sheets together and often consumes a lot of crane time.
Hamilton-based company Tira has developed an innovative transportable machine that welds a single rolled sheet of stainless-steel directly onto the tank foundations in situ.
It is a faster way to fabricate the tanks, without the need to transport large sections or a dedicated crane onsite.
Using just one continuous spiral weld as opposed to many separate welds, also delivers a more robust and resilient tank.
So far, two of the five 250 cubic metre capacity tanks have been fabricated and the third is underway. A purpose-built wooden enclosure is in place to ensure quality control and protect this world-first process.
One of the five tanks will be used to hold the 'disinfected final effluent' – that is, wastewater from the sludge dewatering process that has been filtered, and UV treated so it can be reused to operate the water-hungry sludge dewatering process. The other four tanks will be used to hold the sludge at the various treatment stages.

The first of five new spiral-welded tanks was installed on Thursday night.

Meet the Team

Project Director, Janet Molyneux

Janet joined the project in late 2022 as it was preparing to start construction.

Prior to this she had worked on construction projects in health, science, and education, all with a strong stakeholder focus.
Her move into wastewater infrastructure has been a great way of applying all her experience.
Janet loves working with people and identifying opportunities to deliver the best outcomes possible. She says this is exactly what is happening everyday as the team delivers this exciting new facility for Wellington.