

PROJECT UPDATE Te Whare Wai Para Nuku Moa Point Sludge Minimisation Facility

NOV 2025



NEWS

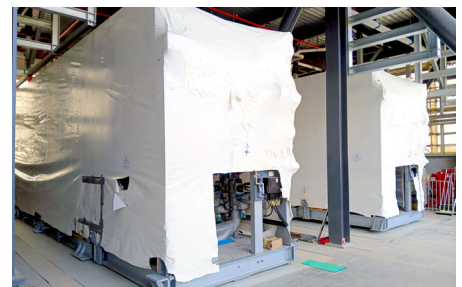
Te Whare Wai Para Nuku's beating heart, the machinery at it's centre - the Thermal Hydrolysis Plant (THP) - is now installed in the Main Process Building.

This milestone is the result of a two and half year journey, which began when the THP was ordered from a UK manufacturer in 2023, and ended when the equipment arrived in October.



The THP was assembled in the UK before it was shipped.

It may be a well-established process in the rest of the world but the new Thermal Hydrolysis Plant (THP) is the first of its kind in New Zealand.



The anatomy of progress

The THP situated on the first floor of the building is the key to efficient sludge reduction.

Like a giant pressure cooker filled with steam it controls and holds the sludges in a hot, high pressure environment for around 20 minutes.

During this time, it is stabilised and sterilised turning sludge from the wastewater water treatment plant into Grade A sludge ready for the digesters.

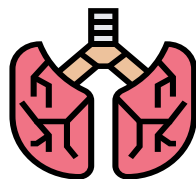
It is a complex piece of machinery and our mechanical and electrical crews are now busy connecting it up to pipes, pumps and cables.

Elsewhere around the building, crews are installing walls separating specific functions.

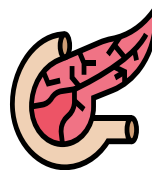
One of these is the control room. If the THP is the heart, then this is the central nervous system of Te Whare Wai Para Nuku.



The fire prevention systems are now in place, but work continues installing the Heating, Ventilation and Air Conditioning (HVAC) systems.

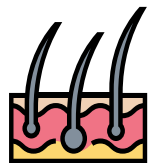


Another key function, the metabolic powerhouse that keeps everything powered is the boiler room, where biogas from the treatment process becomes fuel for the system.



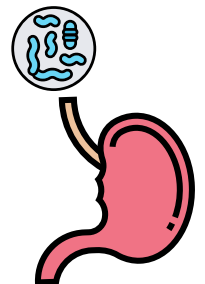
Work painting the building with its protective coating is ongoing

and a protective membrane is also being positioned across the insulated (Kingspan) roof panels, providing an additional watertight seal.



Crews are well under way with the final fit out of the digesters.

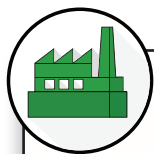
The internal pipe work is complete and now the team are working to attach the prefabricated pipes and pumps that extend out and around the concrete tanks.



The last section of the pipe bridge, that supports different pipes from the digesters is now fully installed.

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The new facade goes up



Over the next few months, the final face of the Main Process Building will emerge as crews install insulated steel (Kingspan) panels in a palette of clean greens and greys.

The colour scheme was selected so the building blends in with surrounding grasses, shrubs and the ocean.

Reducing the plant's visual impact was intentional and the result of thoughtful design.



A peek behind the scaffold

The aim was to build a facility that would operate efficiently and discreetly, keeping noise and odours contained.

Above the bottom concrete level the facade rises in four layers of panels, each one five metres long, and one metre wide.

The panels, made in Australia have been in storage in the project's Lyall Bay compound.

They will be lifted out in order, one by one, according to the facade design, and installed by a local team.

A section of the facade has already been installed on the southern corner of the building, visitors and staff can get a sneak preview of the final effect, but it's not yet visible to the public.

Crews will coordinate the replacement of the existing scaffolding, with free standing scaffolding and remove the wrap.

The facade is expected to be completed by early 2026, providing a fresh, clean look to the new facility.

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The anatomy of progress...

The odour treatment plant is commissioned and ready to go. The team will continue to monitor performance before the operational handover. It is already performing as expected, and noticeably reducing odour around the plant.



Up at Moa Point Plant

Up at the existing Moa Point Wastewater Treatment Plant, the main sludge pumps and pipework are being connected to Te Whare Wai Para Nuku and two important parts of the process are being set up.

Large stainless-steel strainers that sieve the sludge before it goes to the THP are in place and being attached to the sludge tanks.

The new UV system, which uses filters and ultraviolet light to disinfect and purify the treated effluent is being constructed up at the wastewater treatment plant.

Once the effluent has been treated through these processes it can then be recycled back into the plant's system.

By using water from the plant the city can save up to

1400 m³

of potable water per day. One of the city's most precious resources.

