

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

OCT 2025



## News & Progress

It's been a super blustery October at Moa Point, with winds reaching extreme levels of up to 140 km/h (75 knots), measured at the top of the crane, on several occasions.

We keep tabs on wind speed as a safety priority. Work can continue safely in some areas of the site even in high winds, but when it's edging 60 knots (110 km/h) – we need to protect people and close site.

Despite the wind, and having to close site twice this month, we continue to make solid progress at Te Whare Wai Para Nuku.

### Fitting out the main building

The fit-out of the main process building is moving upward through the floors as crews complete painting, installation of various Heating, Ventilation and Air Conditioning (HVAC) units as well as the vital fire suppression systems.

This has opened up the bottom floors for mechanical and electrical (M and E) crews who are installing extensive cable trays and the steel structures that will carry and support pipes – see the back page for the full story.

### Sludge cooler installation

Meanwhile crews have finished putting in equipment for mixing and storing polymer, which is added to sludge to aid dewatering. They are now installing the sludge coolers and the thermal hydrolysis units.

Boilers have also been moved into position ready to be connected to multiple systems. This includes the biogas system that feeds methane



*A rainbow amongst all the windy weather onsite.*

from the treatment process to heat the boilers, and the hot water and steam pipes that feed into other parts of the plant.

### Inside digesters done

At the digester tank site, the pipe work and nozzles within the tanks that will keep the sludges circulating are all finished.

Crews are now installing the pipes and pipework extending out and around the digesters across the concrete "tidy slabs" we've been pouring for the last few months.

### Wet commissioning milestone

At the odour treatment site, dry commissioning checks have been successfully completed. This means we have now moved into wet commissioning.

The tanks have been seeded with the "bugs" from the existing treatment plant that 'eat' the hydrogen sulphide/untreated air.

The system is running reliably, and being process commissioned, and tested.

A major milestone for the team.

### Demolition of old plant

All of this work means we can start to demolish the old pump station that has now been completely covered by the new building.

At the existing Moa Point treatment plant, the strain presses are being installed. These are giant metal colanders that will strain the sludge before it goes into the thermal hydrolysis process.



# Pipes, pumps and cables

The first stage of the electrical and mechanical fit-out of the main process building is underway.

We're setting up the structures for the thousands of metres of electrical cabling and process pipework that will feed in and out of the building and snake around the whole facility.

All pipework in the plant, around

## 8,300 m

is either uPVC plastic, or specialised stainless steel

that has been dipped to ensure it won't corrode in the sludgy conditions.

And it's all fabricated in

## New Zealand

sourced from different companies and made to the project team's design specifications.



Around

## 75,000 m

of cabling also carries power around the plant.

Ranging from the **chunky**

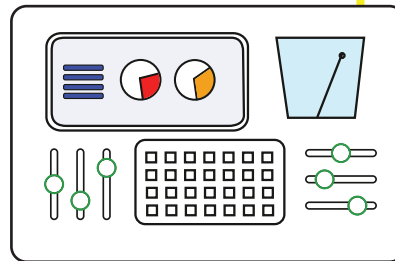
## 500 mm<sup>2</sup>

cables to the larger ones that carry

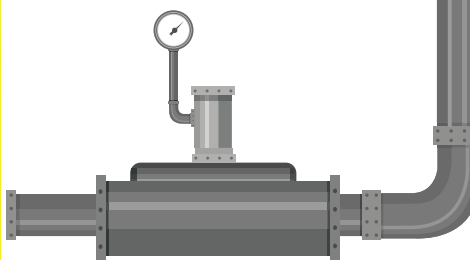
of power from the transformers into the building...

down to the smaller cables that carry power from the switchrooms across the plant and...

connect all the many instruments to the control systems running the site.



Most of the cabling is made in New Zealand with some specialist cables coming from Australia.



Then there are the pumps, around

## 50

in total across the plant

in a range of sizes, some of which have already been installed.

## Coming Up

Next month we'll zero in on the main process building façade as it begins to emerge from behind the plastic wrap.

Some are centrifugal pumps, that spin, suck and flick fluids from one place to the next.



However, centrifugal forces don't work for pumping thick sludges.

For this, we use large 'progressive cavity pumps' that have a rotor system, and constantly grab and push the solids through the line.

These large pumps, from Germany, transport sludges from the existing treatment plant,

down into and around the main process building and then out to the digesters.

