



Seaview Wastewater Treatment Plant

Community Liaison
Group and Major
Projects Update

October 2025



Our water, our future.

Agenda

1. Health and Safety
2. Introductions
3. Compliance Background and Update
4. Dryer Project Update
5. Odour Control Project Update
6. Question and Answer Session

Plant background

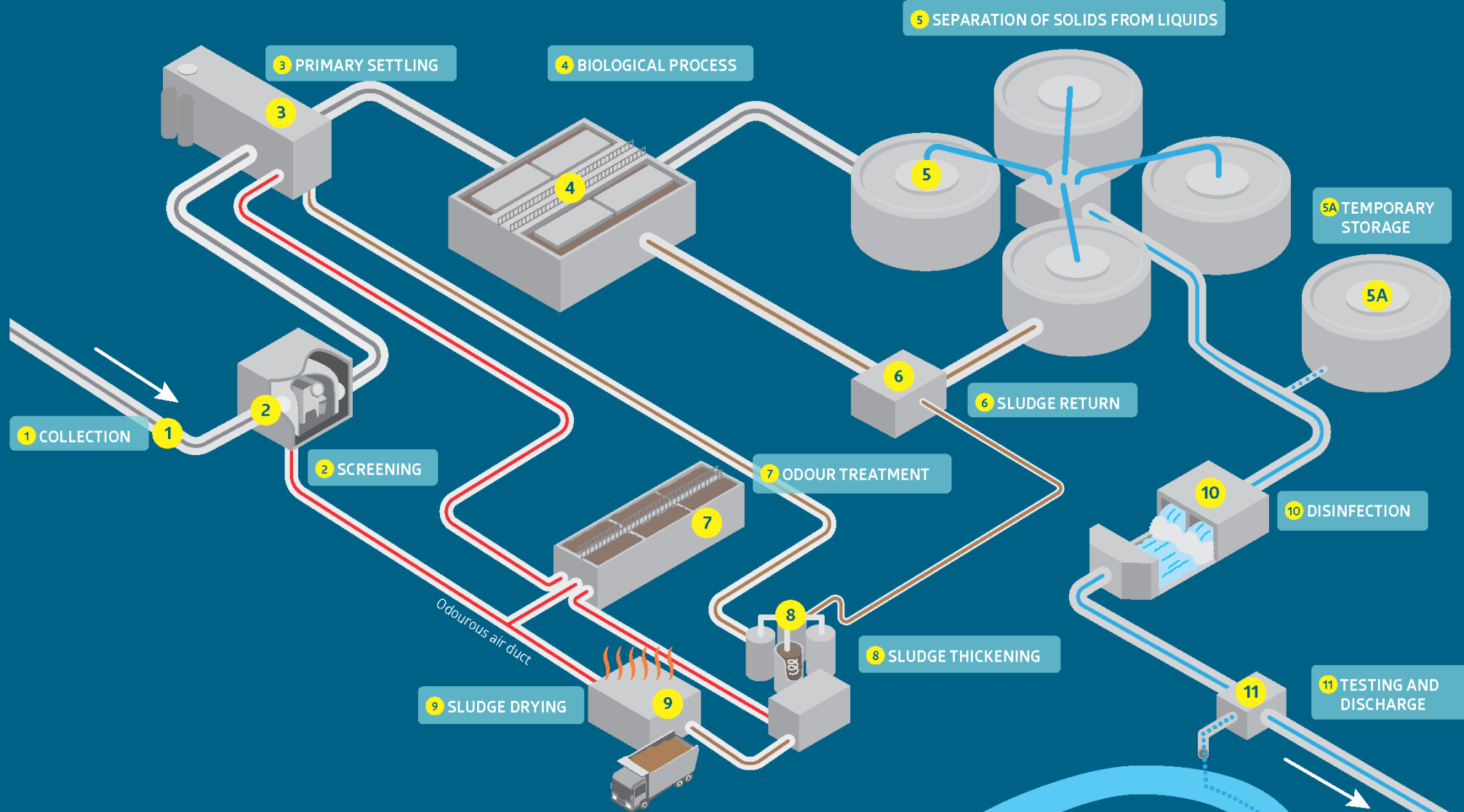
- Seaview Plant is ageing, with constant maintenance and refurbishments ongoing.
- This makes remaining in compliance challenging, and we are clear with our regulator and the community about these issues.
- Full programme of works underway to address these issues.

Compliance 2024-25



Our water, our future.

Seaview Wastewater Treatment Process Overview



Plant compliance – July 2024 to June 2025

- We monitor the plant constantly to ensure efficient processing of wastewater and compliance with consent conditions.
- Each year we compile data into our Annual Compliance Reporting and supply this to Greater Wellington.
- They review this and rate our performance.
- Our reports are on our website.

Plant compliance – July 2024 to June 2025

Faecal coliforms



Non-compliant

Exceeded geomean and percentile limit until early 2025, exceeded percentile limit in mid 2025.

cBOD



Compliant

90-day geometric mean and 90-day 80th percentile have remained compliant

Suspended solids



Non-compliant

Exceeded percentile limit in mid 2025

Plant performance – July 2024 to June 2025

18 consented
discharges due
to wet weather

4 unconsented
discharges due
to mechanical
failures

331 odour
complaints

18 deemed
offensive and
objectionable

Average daily
flow



Compliant

Average
volume **below**
consent limit

Capital Works - July 2024 to June 2025

- ✓ UV refurbishment
- ✓ 2 of 4 Return Activated Sludge Pumps replaced
- ✓ 3 of 3 Blowers refurbished
- ✓ 3 of 4 Primary Sedimentation Tanks – Mech. Refurbishment
- ✓ Dryer Component Refurbishment (shutdowns)
- ✓ Hydro-carbon Sensor Installation
- ✓ Centrifuge controls (WiP)
- ✓ Odour Treatment

Reactive Works – July 2024 to June 2025

- ✓ Milliscreen refurbishments
- ✓ Dryer – reactive shutdowns e.g. bucket elevator, crusher rollers, conveyors and augers
- ✓ Petro-chemical contamination (2)
- ✓ Diffuser repair in CSR's (aeration)
- ✓ Main Outfall Pipe – HSE improvements and culvert restoration

Upcoming Programme

Full programme of works which aims to improve the plant's **performance, reliability and resilience.**

- Dryer refurbishment and replacement
- Aeration Systems Upgrades
- UV Renewal
- Milliscreen replacement
- Screening Wash Press replacement
- Sludge Handling Upgrades
- Effluent Pump Motor replacement
- Back up Power supply



Questions?

Dryer Replacement project update

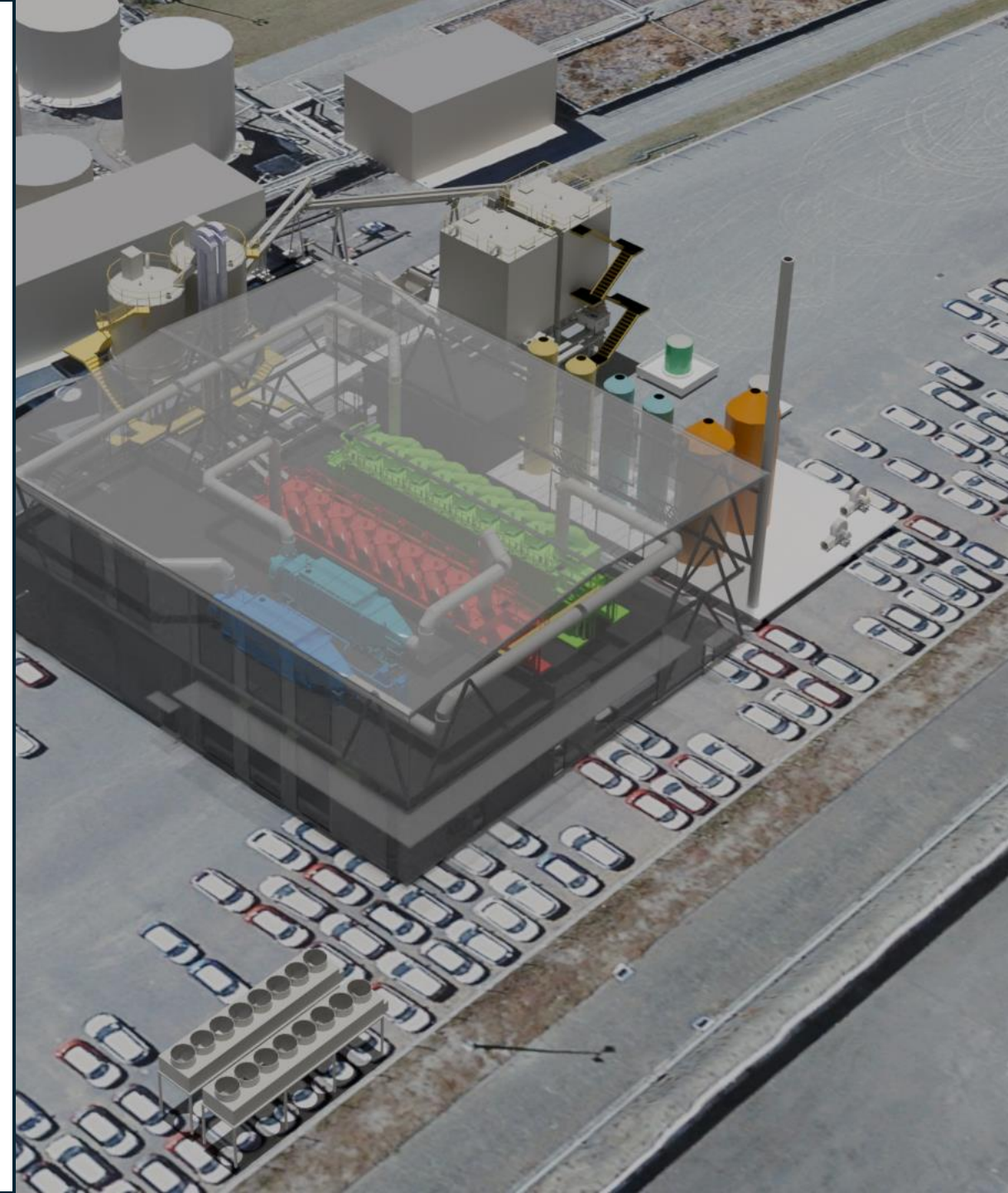
Dryer Replacement project update



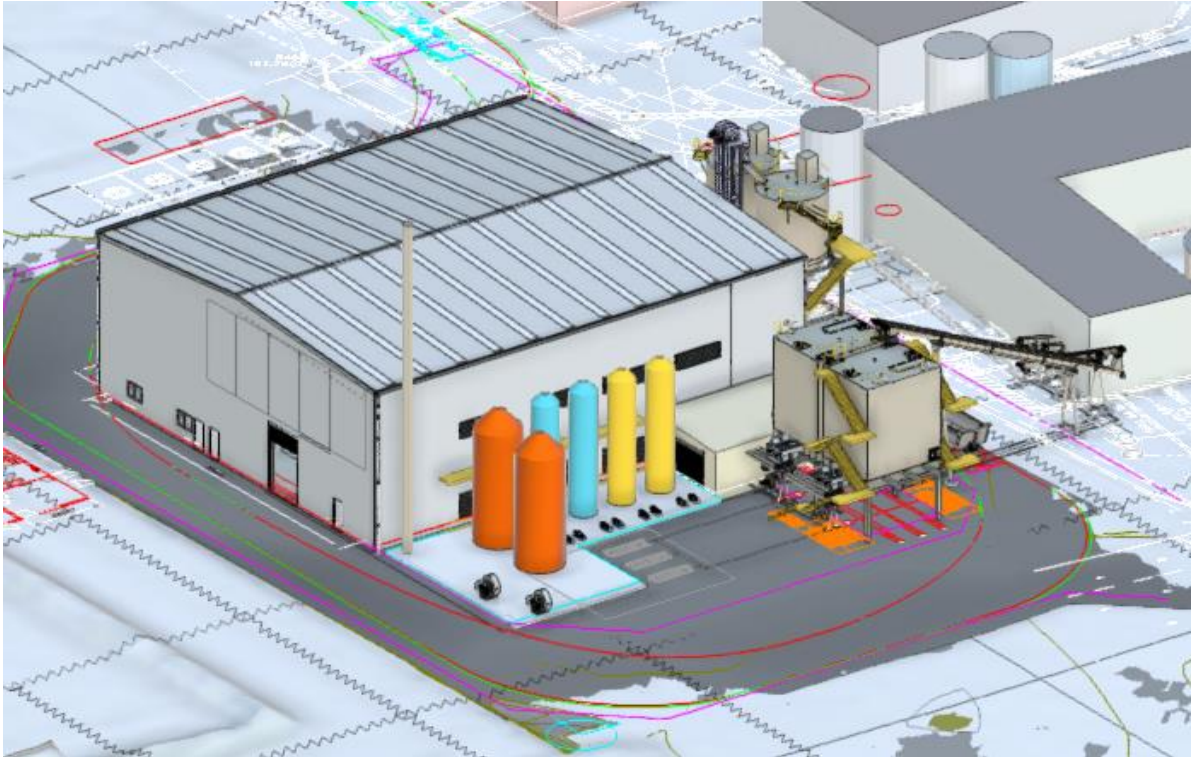
- Downer appointed as design and build contractor
- **Concept design** due to be completed end of October
- Order for dryers by end of October

Dryer Replacement project update

- Design will include **two** new dryers
- This will increase resilience, and cater for future population growth
- Dryers coming from Europe, in 50 containers



Dryer Replacement project - the road ahead



- Onsite works beginning by May 2026
- On track for new dryers in use at the end of 2027
- Project oversight and risk management



Questions?



Odour control project update

Odour Control Project

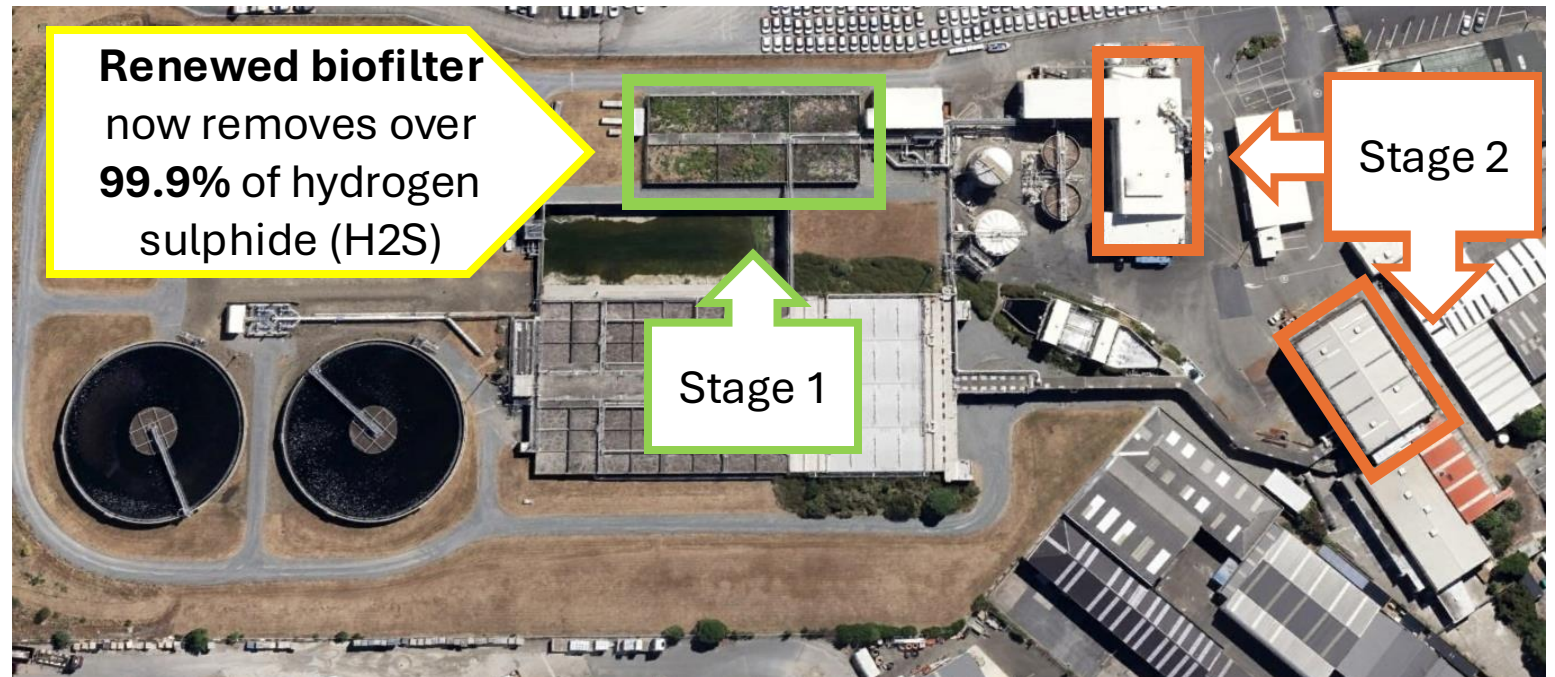
Key focus: Reliably and consistently comply with resource consents

Stage 1

Biofilter works

Stage 2

Milliscreen room odour treatment, ducting and fans, External ducting, Dryer building odour treatment



Odour Control Project

*These two are making the
biggest impact on
odour*



What's in the abatement notice?

- a. New odour treatment for the milliscreen building.
- c. New ducting and fans for the milliscreens.
- b. New odour treatment for the Dryer building.
- d. Repair external odour ducting

Odour Control Project

- New Odour Treatment unit for the milliscreen building is in place.
- The new milliscreen ducting is substantially complete.
- Nearly all the external ducting has been repaired.
- The new milliscreen fans are on site, but there is a short delay with installation.



Odour Control Project

What's in the abatement notice?



New odour treatment for the milliscreen building.



New ducting and fans for the milliscreens.

b. New odour treatment for the Dryer building.



Repair external odour ducting



Under review

Odour Control Project

Under review

*New odour treatment
for the dryer building*

**We have recommended that the money is better spent
elsewhere at the Seaview Plant**

- We investigated to make sure this delivered value for money.
- Investigation showed:
 - it will **not noticeably reduce odour levels** outside the plant boundary
 - If completed, it would only be in place for a relatively **short time**, as the new dryer will be in a new building with its own dedicated odour treatment.

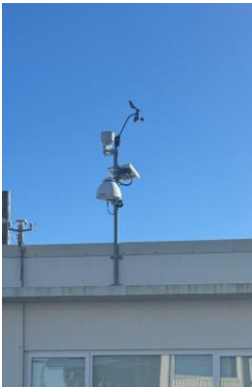


Questions?

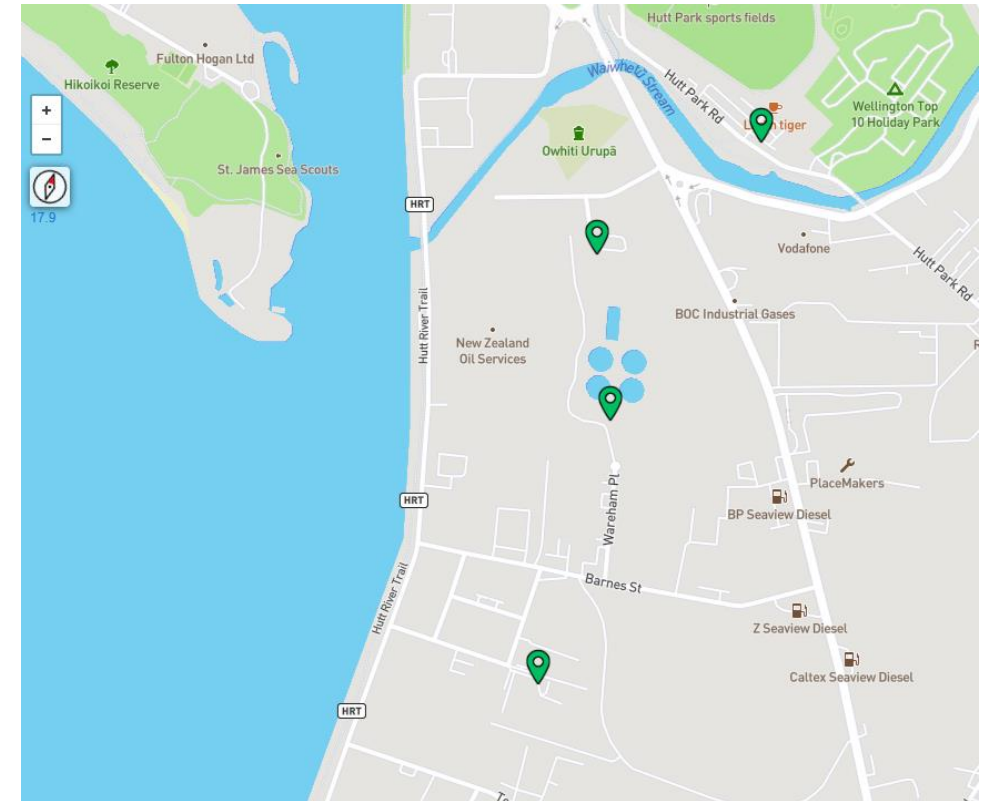
H₂S monitors

Odour monitors

- 4/5 monitors installed, Gracefield School monitor plans are being finalised



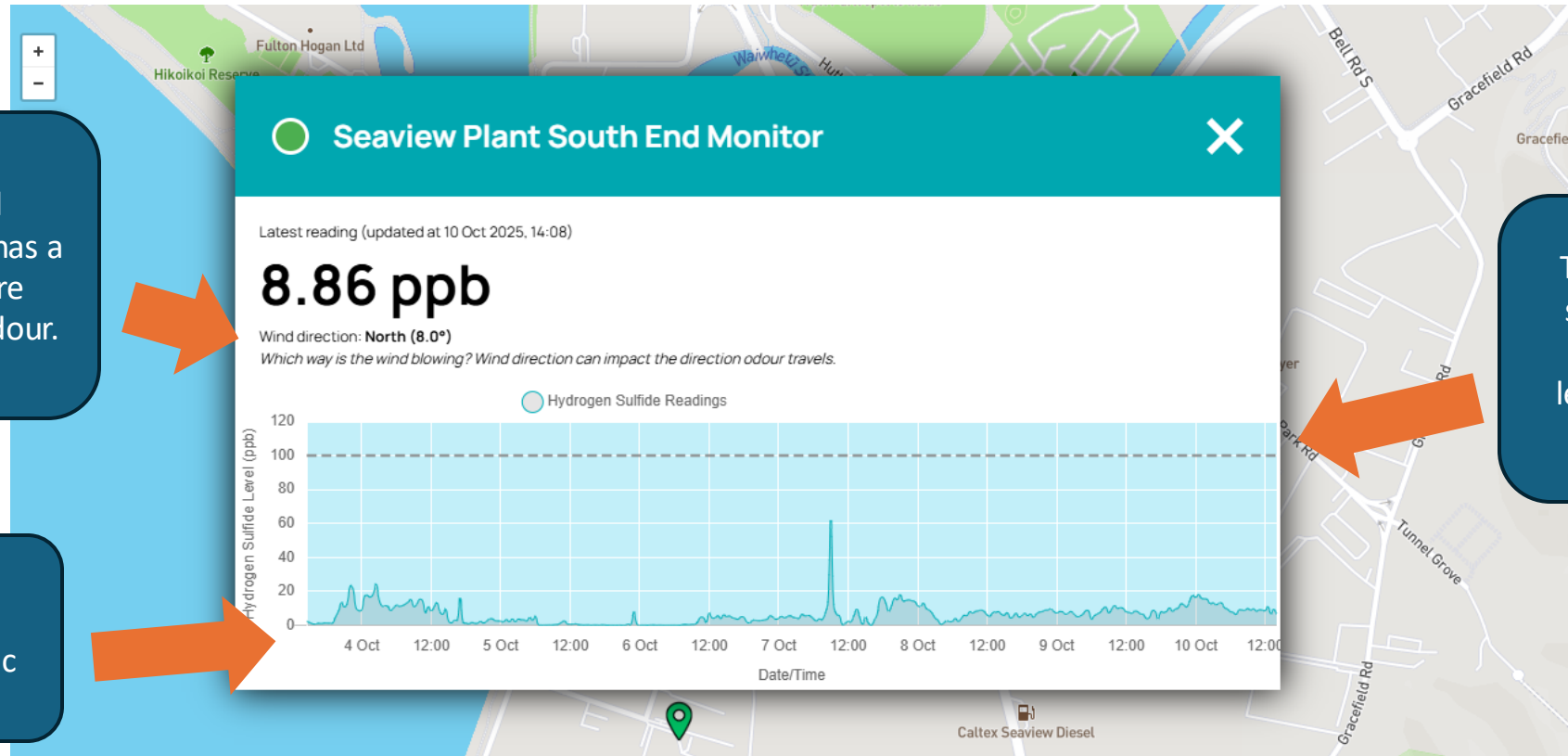
- Data is updated every 30 minutes



Odour monitors

The direction and strength of the wind has a big impact on where people experience odour.

Hover over the hydrogen sulphide reading to get specific data.

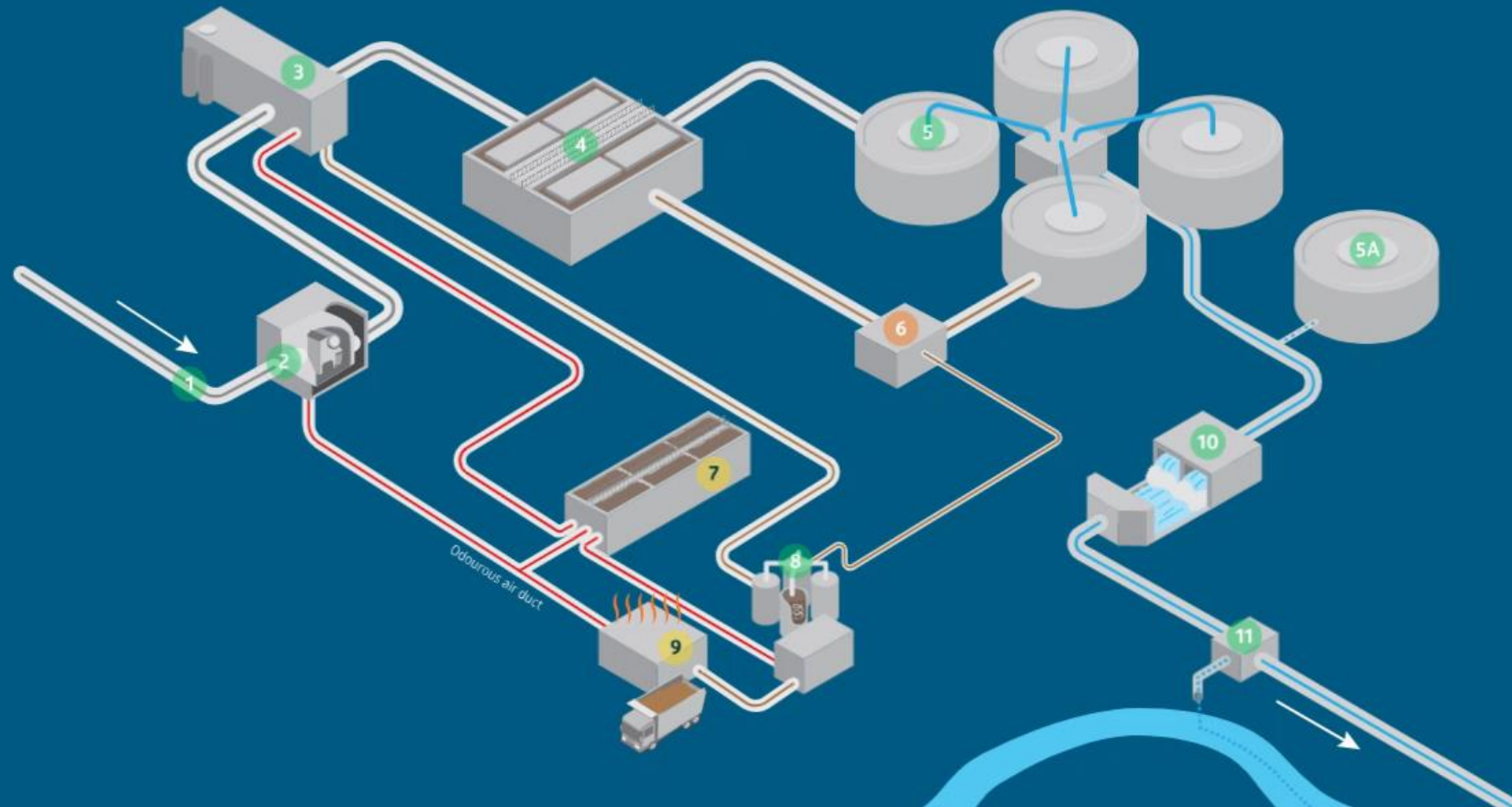


These monitors are very sensitive, capturing H₂S compounds well below levels most people could expect to smell.

This map shows the Seaview plant's treatment process, from collection to discharge.

Areas where the process is working as normal are in green, improvements are in yellow, and areas where there is a live issue are orange.

Hover or click on the numbered icons to learn more.





Questions?

Seaview Wastewater Treatment Plant Community Meeting

October 22nd 2025

Speaking notes

How the Treatment Plant Works

1. Wastewater Arrival (influent)
 - Water from homes and businesses flows into the plant through the network.
2. Screening
 - Large items like rubbish and other solids are removed using 10 large screens (milliscreens). These materials are washed, pressed, and sent to landfill.
3. Primary Settling Tanks
 - In 4 tanks, heavier solids settle to the bottom and are mechanically scraped off. These solids go to a thickening process.
4. Biological Treatment
 - Air is added to help grow helpful bacteria that break down waste.
5. Clarifiers
 - The bacteria clump together and settle in tanks. These are either reused to help the biological treatment process, or sent to thickening.
6. UV Disinfection
 - The cleaned water is treated with UV light to inactivate remaining bacteria before being released.
7. Solids Processing
 - Remaining solids are dried into pellets and sent to landfill.
8. Odour Control
 - Smelly air from key areas is treated using bark, lime, and bacteria filters.

Performance and Compliance – July 2024 to June 2025

The plant is monitored closely to ensure it works efficiently and meets environmental standards. At the end of each financial year (July – June), we report on how well we meet these standards. Greater Wellington then grade our performance. Effective treatment can be measured in a number of ways but includes measurement against the consent parameters.

Treated water quality

There were occasional issues with the quality of treated water, especially with bacteria levels (faecal coliforms). This was mainly caused by:

- Old equipment needing upgrades
- UV system failures (now refurbished but about to be replaced)

- Algae growth in summer
- Failures in solids processing equipment

Suspended Solids Issues

For 3 days, the plant didn't meet standards due to poor aeration and dryer shutdowns.

Discharges to the Environment

Consented Discharges

- 18 events occurred during heavy rain when the plant couldn't handle the flow.

Unconsented Discharges

- 4 events happened due to mechanical failures or power outages.

Odour Complaints

We received 331 complaints, mostly in spring 2024. These were largely related to:

- Dryer shutdowns
- Aeration system issues
- Biological process failures
- Maintenance work on settling tanks

What we're doing to improve things

Over the year, we completed the following:

- UV refurbishment
- Replaced 2 of the 4 Return Activated Sludge Pumps
- Refurbished all 3 blowers
- Refurbished the remaining 3 Primary Sedimentation Tanks (1 was completed the previous year)
- Refurbished components of the Dryer
- Installed a Hydrocarbon sensor to help with petrochemical detection
- Work on the Odour Treatment at the plant

The plant is aging, and we often have to complete maintenance in response to mechanical failures and other issues. Over the past year, we have:

- Refurbished milliscreens
- Completed reactive shutdowns to the dryer
- Responded to petro-chemical contamination
- Repaired diffusers in the Aeration system
- Made improvements to the Outfall Pipe

We're also continuing our work on the following:

- Dryer Refurbishment and Replacement: Extending life of current dryer and preparing for new one.
- Aeration System Upgrade: Replacing old blowers and improving controls.
- UV System Renewal: Full replacement underway.
- Milliscreen Replacement: Replacing 4 screens by end of 2025/26, then 2 per year.
- Screening Equipment Upgrade: New bins, conveyors, and electrical systems.
- Sludge Dewatering Renewal: Better control systems to improve water quality.
- Effluent Pump Motor Replacement: To reduce risk of unconsented discharges.
- Backup Power Systems: Ensuring UV system stays online during outages.

Dryer Replacement Project

We're making great progress on the new dryer project, thanks to a fast-tracked design and build approach. In August, we appointed Downer as our main contractor, and they quickly brought in Aurecon to begin the concept design. This phase usually takes around three months, but we've been able to get it underway much faster.

The concept design is going well. It includes gathering all the information we need to apply for the necessary resource consents.

We've also selected our preferred supplier for the new dryers, and we're close to finalising the commercial details. These dryers will feature the latest technology and controls, and we're paying close attention to how they'll connect with the existing systems at the plant. We've also completed a detailed analysis to ensure the new equipment will be cost-effective over its entire lifespan.

To power the dryers, we'll be installing new electric boilers. This means we also need a new electricity main and transformers, which will be designed and built by Wellington Electricity. That work has already started, and we're working closely with them to keep things on track.

Looking ahead, the detailed design phase will continue into the new year, and we expect construction on site to begin around May 2026. Our project managers, Stantec, are working alongside Downer and our internal teams, as well as representatives from Hutt City Council (HCC) and Upper Hutt City Council (UHCC), to manage the project and its risks.

As with any large and complex project, we're focused on identifying and managing risks early to stay on schedule for completion. Some of the key steps we're taking include:

- Investigating the ground conditions on site to plan for any necessary remediation.
- Working with senior leaders to ensure Wellington Electricity can deliver the new power supply on time.
- Collaborating closely with Greater Wellington Regional Council (GWRC) and HCC to streamline the resource consent process.
- Ordering the new dryers early to avoid any delays with international shipping.

Odour Treatment Project

The odour control project was fast-tracked to manage the increasing odour issues at Seaview WWTP in 2023. The project brief requires two outcomes:

1. Comply with the resource consent (which means no Offensive or Objectionable odour beyond the WWTP boundary), and
2. Provide a safe environment for the WWTP operators

To deliver improvement to the community as quickly as possible, the project was broken into three stages:

Stage 1 – Biofilter Renewal (Completed)

This stage focused on optimising the existing odour control system. The biofilter treats smelly air from key parts of the plant, including:

- The milliscreens (where large solids are removed)
- The inlet pump station
- Primary settling tanks
- Sludge thickening area
- Dryer exhaust

The biofilter uses natural materials like bark and lime, along with bacteria, to absorb and break down odorous compounds.

Stage 2 – Infrastructure Upgrades and Renewals (Nearly Complete)

This stage involves physical upgrades to buildings and ducting systems to better capture and treat odorous air. Key components include:

- Installing a new odour treatment unit for the milliscreen building
- Replacing the ducting that captures air from the milliscreens
- Odour treatment for the existing dryer building
- Repairing external ducting around the plant

Most of this work is finished, but some final connections and installations are delayed and expected to be completed in December 2025 – missing the 1 December 2025 abatement notice deadline. Short shutdowns will be needed to safely install and test the new equipment, and these will be scheduled to minimise disruption to the community.

Stage 3 – What else?

This stage is still being developed. It focuses on reviewing the effectiveness of our work so far, deciding what additional work is needed to meet the project objective to comply with the abatement notice.

Odour treatment on the Dryer building

We shared the project scope and plans with the community in mid-2024, this included a plan to install new odour treatment on the dryer building.

The Dryer building and risk of odour had been mentioned in previous odour reports so it was appropriate for this project to consider it.

As the project has progressed, we have considered the impact of odour treatment on the current dryer building, and the value for money the community will get when we know that it has a limited remaining life (the new dryer is expected to be available for service in late 2027.)

This is important because the new dryer will have its own dedicated odour treatment, which means that any investment in the current dryer will be relatively short lived.

After testing the air from the dryer and considering alternative treatment options, it was found that:

- New treatment will **not noticeably reduce odour levels** outside the plant boundary
- If completed, it would only be in place for a relatively **short time**, as the new dryer will be in a new building with its own dedicated odour treatment.

These findings were shared with Hutt City Council and Upper Hutt City Council.

Together, Wellington Water, Hutt City Council and Upper Hutt City Council asked Greater Wellington to consider removing the requirement to upgrade the current dryer's odour system from the abatement notice. This would avoid spending ratepayers' money on an upgrade that will not noticeably reduce odour levels outside the plant boundary and then won't be needed once the new dryer is in place.

We are waiting for a formal decision regarding this request and will keep the community updated as it progresses.

Community Odour Monitoring

To help understand and manage odour concerns from the wastewater treatment plant, a new monitoring system has been put in place. This is in direct response to community feedback asking for more transparency and better data on odour levels.

What are we monitoring?

We're tracking levels of Hydrogen Sulphide (H₂S) – a gas that smells like rotten eggs and is commonly associated with wastewater treatment. It's not just about smell; it's about how

odour affects people's comfort and wellbeing. By monitoring and sharing this data, we aim to build trust with the community, respond more effectively to complaints, and support decisions about future upgrades and odour control measures.

The monitors detect H₂S at very low levels, starting from 0.1 parts per billion (ppb).

People's sensitivity to odour varies widely:

- Some may notice it at just 1 ppb.
- Others may not notice it until levels reach 1500 ppb.

The Ministry for the Environment recommends a guideline of 5 ppb to avoid impacts on wellbeing. For practical purposes, we've adopted a 30 ppb threshold as a level of concern for community wellbeing. This is also used by Christchurch City Council and based on international guidelines.

Where are the monitors?

- So far, 4 out of 5 planned monitors have been installed.
- These are placed strategically to capture data from the main wind directions (north and south), which helps us understand how odour travels into nearby communities.
- A fifth monitor is planned for Gracefield School, which will help us better understand odour impacts in that area.

How will the community access the data?

- The data will be made publicly available on our website.
- It will be updated every 30 minutes, and reflect an hourly average, so residents can see real-time information about odour levels in their area.
- A sample of what the website will look like has already been shared, and full access is expected in November. There has been a slight delay due to some website issues.