



**Seaview WWTP Odour Control
Community Meeting**

6 December 2023



Our water, our future.

Meeting Agenda



Items	Who	Timeframe
Meeting Opening	Andrew Freeman Facilitator	5:30 – 5:33 pm
Opening Karakia	Tui Lewis – Deputy Mayor	5:33 – 5:35 pm
Presenter Introductions	Andrew Freeman	5:35 – 5:40 pm
Hutt City Council Introduction	Tui Lewis – Deputy Mayor	5:40 – 5:45 pm
Seaview WWTP Background	Steve Hutchison Chief Advisor Wastewater – WWL	5:45 – 5:50 pm
Plant Odour Control Treatment Projects	Jeremy McKibbin – Group Manager NMG – WWL	5:50 – 6:05 pm
Plans for Odour Control and Long-Term Plan (LTP)	Steve Hutchison/ Bruce Hodgins	6:05 – 6:15 pm
Questions/Feedback	All	6:15 – 6:45 pm
Closing Remarks	Jeremy McKibbin	6:45 – 6:50 pm

Andrew to open the meeting and mention some H&S reminders

For Andrew: Can you please mention this house rule if possible that the preference would be to take questions at the end if possible. Not to film

Minutes will be transcribed and made available to the public.

Opening Karakia



**Whakataka te hau ki te uru
Whakataka te hau ki te tonga
Kia mākinakina ki uta
Kia mātaratara ki tai
E hī ake ana te atakura
He tio, he huka, he hau hū
Tīhei mauri ora.**

*Cease the winds from the west
Cease the winds from the south
Let the breeze blow over the land
Let the breeze blow over the
ocean
Let the red-tipped dawn come
with a sharpened air.
A touch of frost, a promise of a
glorious day.*

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Andrew to open the meeting and mention some H&S reminders

For Andrew: Can you please mention this house rule if possible that the preference would be to take questions at the end if possible. Not to film

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Our commitment



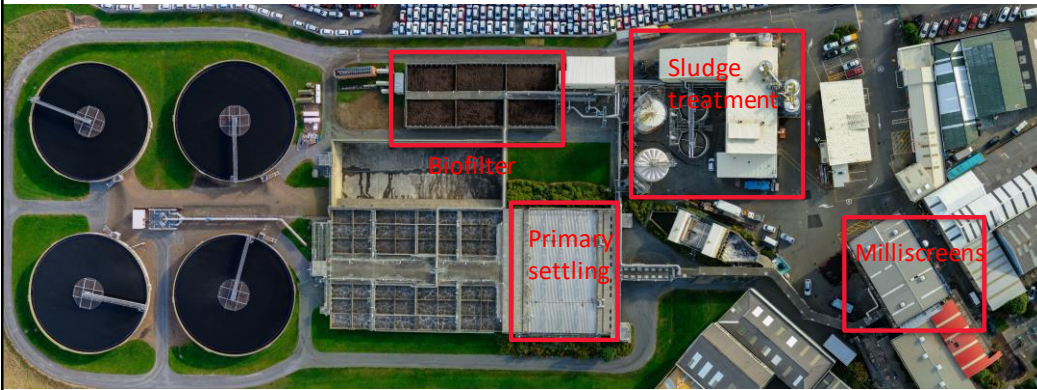
The Council, Wellington Water and Veolia are currently working on several interventions both short and medium-term to effectively manage the odour generated from the site.

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Deputy Mayor Tui Lewis

- We absolutely recognise and acknowledge the offensive nature of the odour emanating from the plant and its effect on local residents and businesses.
- We sincerely apologise and undertake to do what we practically can to address the issue both in the short and medium term.
- The work that is being undertaken now to replace the biofilter will help reduce the level of offensive odour but will not eliminate it.
- Council is currently considering significant investment over the next 3 years in the plant through the Long-Term Plan, which will contribute to improving the odour situation.

Seaview WWTP background



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Steve Hutchison

- *History of the plant*
- *Plant design*
- *Population served*
- *Odour and consents*

The Seaview site is a critical part of the Hutt Valleys water infrastructure. All the wastewater pipes from Upper Hutt, Wainuiomata, Eastbourne and Lower Hutt lead to Seaview.

When the main plant was being designed a key criteria was to meet the resource consent standard that there should be no objectionable or offensive odour at or beyond the boundary of the site. In order to achieve that, the most smelly areas of the plant had covers placed over them, and air is sucked from under those covers to the biofilter at the centre of the site. Those covered areas are shown in the red boxes above.

Biofilters are a widely used technology for treating foul air from wastewater and similar sources, like meatworks. The air is blown through a specially designed

mixture of screened bark and topsoil and alkaline which uses natural microorganisms to filter the odour compounds.

Current work - what has been done



- *Assessment of the odour control system (ducting and biofilter)*
- *Odour scouting monitoring*
- *Use of deodorisers to temporarily mitigate odours*
- *Removal of media and assessment of one Biofilter cell*

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Steve Hutchison

Over the past few years odour from the plant has been increasing, and there have been several investigations done to try and understand the source of the increased odour and how to improve the situation. We appreciate this has been frustrating. This work was put together at the end of May in a brief for our consultants on medium term improvements, which we will talk about later.

We have had two assessments of the odour control system in recent years, one in July 2021 and again in February 2023, looking at the air flows and pressures from the different areas around the plant. Those assessments also identified other parts of the plant which don't have odour treatment that could be added.

We commissioned the odour scouting monitoring earlier this year which involved a review of the complaints record, having an independent assessment of odour over 8 days using scientific methodology, measurements of hydrogen sulphide on site, which gave some information around where odour could be smelt, how strong it was and the likely source of odour. That study also gave some recommendations on odour control improvements for the plant and recommended that the biofilter media should be replaced.

We have also been using deodorisers for masking the odour. There is a permanent spray system in the milliscreen building. We have had a trailer mounted deodoriser spray unit since the early days of the plant which is used when maintenance work is done which requires covers to be removed, and recently purchased another larger unit which uses a neutral deodoriser. Independent experts agreed does help in mitigating the problem but will not completely eliminate the odour.

That investigation work has recommended the replacement of the media, which Jeremy will talk to.

Biofilter Replacement



Biofilter replacement is part of a larger programme proposed to address plant odour over time.

The site's biofilter system which treats the odour requires bark media replacement and renewal to remain effective.

During the works to replace bark media, the plant's odour treatment capacity is reduced, and this can result in strong odours at various times.

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Jeremy McKibbin

Would like to acknowledge the impact from the odour while we have been undergoing this work has been unpleasant, inconvenient and distressful for many of you.

We underestimated the extent of the odour relating to the work and because of this the communication of what was happening when the level of inconvenience became obvious, we should have done a better job of keeping you informed, and I apologise for that.

The biofilter consists of 6 banks of filters which we call cells. Each cell can be isolated for odour but the isolation was not working as well as expected but we have found a better way to manage this now, so this will help avoid the strong odour that occurred a couple of weeks ago.

We are looking at options for making this isolation simpler and more reliable.

We have to undertake these works to avoid worse impacts from odour and these would have increased if we didn't renew the filters now.

There have been delays in the program pushing the programme later in the year than we had hoped, however Veolia are progressing as fast as possible.

Biofilter media



- Biofilter media consists of layers of bark and shells, pea gravel and river rock over the air distribution structure
- The biofilter media decomposes over time and requires replacement every 5-10 years
- Images show biofilter cell with media which has “sunk or decomposed”
- Images show decomposition and short circuiting (air flow between the media and biofilter walls) which reduces effectiveness

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Jeremy McKibbin

We undertook an assessment of the biological filter media condition in 2021. This indicated that it was in reasonable condition and it was recommended that the level of the biofilter media was topped up and turned over. Which we did.

The biofilter media was reassessed in March 2023 and was found to be degraded and compacted causing inefficient odour treatment. It was determined that the media required full replacement. The work was originally planned for winter 2023 but we experienced delays and where not able to complete over winter. Further delay was deemed to deliver a worse outcomes for the community, so we started the work as soon as was practical.

Biofilter Air Distribution Structure

HUTT CITY
TE AWA KAIRANGI

Wellington
Water



- Air distribution structure under the bark layer for air distribution
- Plastic “crates” channel the odorous air and distribute across whole biofilter. (showing some damage)



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Jeremy McKibbin

What we are doing is first removing the bio filter media in 2 cells which is then disposed of off-site.

Once the media is excavated and removed we are then able to get access to and inspect the air distribution system. The inspection enables us to understand the current condition of the Air distribution structure and inform any further requirements for the long term renewal for the odour control system.

Once we have removed the media and inspected, we replace the biological filter media which contains a mixture of new mix of bark and calcium.

Due to the way air flows through the new media we start by doing 2 cells at once and then after doing the first 2 we proceed doing one at a time.

What we have found so far is that the air distribution structure is also approaching the end of its life and requires replacement soon. We have engaged external experts that are compiling a report on what the recommended next steps should be and when we have finished all 4 cells we will have a report better understanding of the renewals required.

Biofilter Media Replacement Programme



Cells	Media replacement planned start date	Commissioning schedule
Cell 1	14 November 2023	12 December 2023
Cell 2	6 December 2023	12 December 2023
Cell 3	12 December 2023	18 December 2023
Cell 4	18 December 2023	22 December 2023
Cell 5	10 January 2023	25 January 2023
Cell 6	12 January 2023	25 January 2023

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Jeremy McKibbin

The Veolia team is looking into completing the replacement of four out of six cells before Christmas. We will be pausing the work over the Christmas period from the 22nd December and resuming on the 10th January.

Plan is to always have at least 4 cells operating

We are planning to be finished renewing the media by the 25th January.

You can expect that during the period these works are being undertaken residents and businesses in the immediate area of the plant may experience stronger levels of odour than normal

Medium-term renewal programme



A specialist team involved to renew the site's odour control system.

The main objectives are to ensure compliance with the resource consent and provide a safe working environment to the operators.

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Steve Hutchison

The Odour project team are working through their investigations at the moment, with the objective to ensure compliance with the consent and provide a safe working environment for the operators. The project team have prepared some initial assessments of the odour system on site, the condition assessment of the biofilter and options for improved monitoring.

They will work up plans that at this stage are expected to include:

- Replace the ducting and fans around the site
- Renew the Biofilter air distribution system
- Design additional treatment for the Dryer and Inlet works buildings (carbon air filtration)
- Address other areas with fugitive odours (screening bins, centrifuge room)
- Improved monitoring systems to detect odour

The design and construction work is not currently funded but has been proposed for the 2024 LTP and planning will continue. It is likely to take two years.

Long Term Investment Plan



Project	Indicative Timeline (subject to funding approval)	Total Cost
Seaview Odour Control Renewal	Concept Phase – FY2023-2024 Design and Construction Phase: FY 2024 – 2026	\$13M
Seaview WWTP Sludge Dryer Replacement	FY2023 – 2028	\$85.5M
Other specific WWTP Projects	FY2024 – 2034	\$61.2M
Planned and Reactive Renewals – ongoing projects	Annually	FY 2024 – 29: \$2.62M FY 2029 – 34 : \$1.5M

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Bruce Hodgins and Steve Hutchison

Please note that the works for this project is dependent on the council’s approval for funding and final approved scope.

Mention the stand-alone odour treatment for the dryer

Council has agreed to include the funding in the draft Long Term Plan as shown in the slide. (Meeting confirmed this on 12 December)

Take note that the odour control renewal does not involve covering aeration tanks and final clarifiers

- Seaview Sludge Dryer – replacement will have a dedicated odour control system
- Aeration System Renewal – will prevent odour generation from the site due to septicity
- Planned and Reactive Renewals – to address plant treatment processes that can cause treated discharge and/or odour consent non-compliance

Update information and contact details

If you would like to receive further updates on the project, please email customer.notifications@wellingtonwater.co.nz and we will put you on the interested parties list.

We have a dedicated website page with regular updates on the progress of works: https://www.wellingtonwater.co.nz/projects/s_eaviewwwtp/

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Jeremy McKibbin

We are regularly updating our website on the projects progress.

Questions and Feedback

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Closing Remarks

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Jeremy to talk

Thanks everyone for their attendance and **we are all committed in resolving the odour issues at the plant** and its great to **see that this is receiving prioritisation in the LTP process.**

I will also point out that there **will be a separate meeting for the CLG** meeting early next year as soon as the compliance report from the Regional council is available those on the **interested parties list** will get notified of this.

