30 January 2025

OIA IRO-801 and 25-006

[redacted]

Tēnā koe [redacted]

Request for information: annual CLG meeting for Porirua WWTP

I refer to your document provided to Wellington Water Limited on Thursday evening 12 December 2024 with several questions from the Titahi Bay Residents Association.

On 12 January 2025 you emailed two questions following the Porirua WWTP CLG meeting minutes. On 15 January 2025 you were contacted to clarify your request. As no response was received from you, your two questions from the minutes have been responded to.

Your requests are responded to in accordance with the Local Government Official Information and Meetings Act (LGOIMA – the Act) 1987. Please refer to the appendix that responds to your questions on the following page.

Please note that it is our policy to proactively release our responses to official information requests where possible. Our response to your request will be published shortly at https://www.wellingtonwater.co.nz/about-us/official-requests/official-information-act-responses/ with your personal information removed.

You have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

If you wish to discuss this decision with us, please feel free to email us at official.information@wellingtonwater.co.nz

Nāku noa, nā

[redacted]

Group Manager
Network Management

APPENDIX

OIA-801:

5. *On 26 August the Rukutane pump station discharged untreated wastewater for 14 hours, due to a wet weather event that caused significant flooding in the network catchment. Was the treatment plant affected in this storm event, if so, what occurred, if not, why not?*

The Porirua Wastewater Treatment Plant (Porirua WWTP) experienced elevated inflow during the wet weather but operated as expected on 26 August 2024. Tangare Drive and Rukutane Pump Stations fed the wastewater flow going into the Porirua WWTP. The current combined pumping capacity from these pump stations is around 1380 L/s versus the plant's upgraded full treatment capacity of around 1,550 L/s. The instantaneous peak flow recorded during that day was around 1,380 L/s but is still within the plant's full treatment capacity. The treated wastewater quality parameters on 26 August 2024 are well within the compliance limits as shown in the table below:

Parameter	Value
Total Suspended Solids	8 mg/L
Biochemical Oxygen Demand (BOD)	10 mg/L
Faecal coliform	145 mg/L

6. *The plant is supervised only from 8am-3pm Mon-Fri so how does monitoring take place in weekends and public holidays - as there no telemetric monitoring. Has the Kaitiaki Monitoring Programme been completed? If not, why not?*

The Porirua WWTP has dedicated personnel on site from around 7.30am to 4pm Monday – Friday. The treatment plant can also be operated and monitored remotely through the Supervised Control and Data Acquisition (SCADA) System. Veolia operates an on-call roster consisting of one operator and one duty manager responsible for the operation of the treatment plant outside of normal business hours and public holidays. If an abnormal operation or fault is detected in the treatment plant, an alarm will automatically send a notification to the nominated on-call operator's phone. Once the text message is received by the operator, they will undertake the necessary corrective actions to resolve the issue and/or escalate it to the duty manager if required.

7. *What is wrong with the Plant's secondary treatment? In July there were multiple exceedance of 2000plus faecal coliforms and on 9 July 4million pre UV. What has changed in Aug, Sept, Oct, Nov?*

The plant had effluent faecal coliform results exceeding the 2,000 cfu/100 mL limit on 2 to 5 July 2024. Veolia have undertaken an investigation of the non-compliance incident and concluded that the exceedance was due to the combination of higher pre-UV faecal coliform levels and lower disinfection performance of the TAK UV system. Subsequent to the July exceedance, the Duron UV unit was returned to service, and this resulted in improved disinfection of the wastewater. Please note that the secondary treatment process reduces the faecal coliform levels in the treated wastewater as a part of the biological process, but

the treated wastewater still needs to undergo UV disinfection to further reduce the level to within the compliance limits. A component renewal for the TAK UV system is planned for this FY24/25 to improve its performance. A copy of the investigation report can be accessed through the Porirua WWTP website. The report can be accessed here.

8. *What is the cause of the exceedance of Ammonia? Is the report available to the public?*

Porirua WWTP has been exceeding the ammonia nitrogen limits since May 2024. Our investigations have concluded that the exceedance is due to an issue in the biological process limiting the conversion of ammonia nitrogen to its oxidised form (nitrification process). The recommendation to resolve this issue is to increase the dissolved oxygen (DO) level in the aerobic zones of the biological treatment stage to encourage nitrification to occur. It is anticipated that operational adjustments would be enough to reduce the ammonia nitrogen limits in the treated wastewater and a plant upgrade is not required in the short term. A change to dissolved oxygen levels in the aeration tank is currently being implemented and monitored. The Veolia investigation report which provides the details on the initial investigation is available on the Porirua WWTP page of our website here. . The report can be found here. A second report which documented the recommendations can be accessed here.

9. *The new Duron UV system has been dysfunctional since installation in June 2022, when will it be fully functional? What is the current status?*

The Duron UV system has been operating satisfactorily from 27 July 2024 to 19 January 2025. A fault in the outlet penstock was detected on 19 January. Wellington Water has been working closely with the contractor to determine the cause of this fault. We have installed additional monitoring on the UV system's outlet penstock to aid the investigation.

The TAK UV system is currently acting as a duty unit during afterhours and non-working days while the Duron unit acts as the duty unit while staff are on site. This arrangement will be in place while we investigate the issue further.

There was no unconsented discharge or any adverse effect in the quality of the treated wastewater detected due to this incident.

The treatment plant is compliant with the faecal coliform limits as per the resource consent since August 2024.

10. *How often has the UV Tak system been cleaned since the installation of the Duron and is it still requiring a fortnightly clean? When it is cleaned, there is partial discharge - are the public being notified for these discharges.*

The UV system in Porirua WWTP operates on duty/standby. As the wastewater flow can be directed to the UV system, which is not undergoing maintenance so there is no discharge of partially treated wastewater during these The TAK UV System is cleaned monthly or if instruments indicate that the TAK UV dose is falling.

Monitoring:

11. *Consent Conditions 7 and 8 - "the consent holder shall each day, including weekends and public holidays, obtain a representative 24hr flow composite sample of wastewater". But Plant is supervised only from 8am-3pm Mon-Fri. As there is no telemetry monitoring - how is consent condition 7 and 8 complied with*?

Condition 7 indicates a composite sample over a 24-hour period, this is performed automatically by a composite autosampler. These devices are used commonly in water and wastewater plants worldwide. It is connected to the effluent channel and draws up effluent via small tubes on an hourly basis into a bucket inside the cabinet (see image below). This forms the composite sample that is collected.

Condition 8 requires a grab sample; this is a manual practice and involves a sample to be taken from the effluent channel by the sampling technician.

Please be advised that telemetry monitoring such as SCADA is used across all the treatment plants and is in operation at the Porirua plant.

Consent 9A - Page A-9:

12. *Exceedance of Ammonia - we would like to see the investigative report on this exceedance, due end of November? (Report also mentioned in the WWL rep01t to Councillors at 26Nov24 WWTP/Landfill JV meeting - but not presented*.

    Please refer to the response to question eight.

25-006:

1. *Will the UV power supply be completed by the end of January 2025?*

   The Porirua UV backup power supply was successfully commissioned on 21 January 2025.

2. *Has the report explaining the high ammonia nitrogen been published, if so, when and where? If not, when and where?*

   Please refer to the response provided to OIA-801 - question eight.