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Date: 19 June 2023

By email: [Jo.Frances@gw.govt.nz](mailto:Jo.Frances@gw.govt.nz)

Dear Jo,

**Response to Please Explain letter regarding use of storm storage pond, PWWTP**

This is a reply to Claire McKeivitt's "Please Explain" letter to the Kapiti Coast District Council (the "Council") dated 8 June 2023 regarding the use of the storm storage pond at the Paraparaumu Wastewater Treatment Plant (PWWTP). This letter addresses each of the questions in turn.

1. *Why has the storage pond been required to be used on more than three occasions this year?*
2. *Has there been a significant increase in rainfall during the July 2022-June 2023 period compared to previous years?*

Consent WGN970255 [34837] authorises the Council to use the storm storage pond where stormwater inflows exceed capacity at the PWWTP to treat the volume of water entering the system. The Council is authorised to use the pond up to 3 times per year.

When the resource consent was granted in March 2000, the Council had only been using the storm storage pond up to 3 times a year, hence the reason for the limit in the resource consent. The Council has typically kept within the limit except for 2017/18, 2021/22 and again in 2022/23. **Table 1** provides a summary of usage of the storm storage pond since 2016/17.

*Table 1: Storm storage pond uses since 2016/17*

Year	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
No. uses	3	4	1	3	2	6	6

Rainfall intensity is the most significant factor influencing storm storage pond use. This is because rainfall and overland flows can enter the wastewater system, causing an increase in effluent entering the PWWTP. Rainfall can also contribute towards increased groundwater tables, which also increases the volume of groundwater entering the wastewater network following a high rainfall event.

In 2021/22 and 2022/23, the Kapiti district experienced increased annual rainfall and rainfall intensity events compared to previous years. **Figure 1** shows monthly rainfall in the Kapiti district from 2016/17 to 2022/23, with a peak in 2021/22 and continued high intensity events in 2022/23. The district is expected to continue to experience an increase in rainfall frequency, distribution, intensity, and volume, as well as increasing groundwater tables, due to climate change and sea level rise.

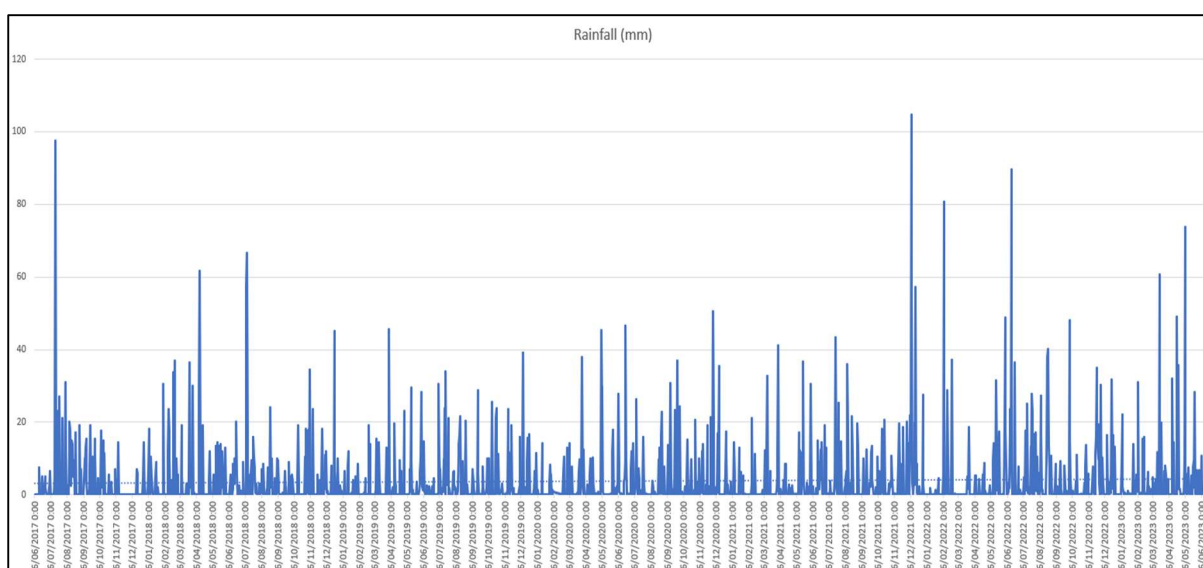


Figure 1: Kapiti Coast monthly rainfall since 2016/17 as recorded at Waikanae River - Water Treatment Plant (source: GWRC Environmental Data Dashboard)

3. Are there any known significant illegal inflows into the wastewater network that have not been remediated? If so, what are these?

The Council’s stormwater management team have surveyed stormwater downpipes on 86% of the individual properties across the district, including catchments that lead to the PWWTP. Approximately 10% of the properties surveyed were found to have a direct stormwater connection to the wastewater network, either through a direct downpipe connection or a low or broken wastewater gully trap. These illegal connections provide a significant contribution towards wastewater inflows during high rainfall events.

4. What actions is the Council taking to reduce the use of the storage pond usage?

Use of storage basin is inevitable whenever the inflow exceeds the capacity of the PWWTP, and use of the storage basin has a better environmental outcome than discharging screened but untreated wastewater into the Mazengarb Drain. The flow directed to the storage basin is pumped back to the PWWTP for treatment when inflow is reduced following an event.

To help reduce the need for the storm storage basin during high rainfall events, and to minimise the environmental effects of storm storage basin use, the following remedial actions have either been completed or are work in progress:

- Upgrading the inlet structure to handle more flows, planned for 2024-25.
- Increasing storage capacity of the pond from current 25,000m<sup>3</sup> to 40,000 m<sup>3</sup> to enable the plant to handle large inflows during higher rainfall events.
- Lining of the storage basin to prevent groundwater contamination.
- Preparing site-specific solutions to remedy stormwater inflows into the wastewater network, with budgeting for remedial work to be included in the Long-Term Plan/Infrastructure Strategy 2024-25 and remedial works to begin 2024-25.
- Ongoing inspections of CCTV in the pipe network to identify and remedy any inflow / infiltration.
- Ongoing planned repair and renewal programme.

As part of the replacement resource consent application, the Council has requested that, once the storm storage pond lining works are complete, the number of times the pond is used per year is unrestricted.

For some additional context, the Council has previously sought to amend the conditions in the expired consent WGN970255 [34837] to remove the restriction of the number of annual uses of the storm storage pond. The Council sought advice from Greater Wellington Regional Council (GWRC) to amend the conditions of the resource consent in March 2019. At the time, GWRC advised the Council to stay with the current conditions of consent and seek to amend these conditions as part of the 2022 re consenting of the discharge.

Claire Baldwin, Resource Advisor at GWRC, advised<sup>1</sup>:

*We are aware that should KCDC need to use the storm basin more than 3 times in the following 3-4 years this will make them technically non-compliant with their resource consent. However, provided KCDC continue to follow the other conditions of their consent, in particular trying to process the waste back through the plant as soon as reasonably practicable, **GWRC will not take enforcement action on KCDC for using the storm basin more than 3 times in a year.** This is because we understand that it is not intentional, and KCDC are in the process of addressing the bigger issue. GWRC prefer attention is spent understanding and addressing the bigger issue, than the technical non-compliance which is unlikely to have adverse environmental effects.*

The Council's resource consent application for the replacement resource consent does not limit the number of times that the storm storage pond can be used each year. This is based on the groundwater technical report (Appendix C to the resource consent application), which recommended removing the limit because use of the storm storage basin is preferable to discharging untreated wastewater to the Mazengarb Drain. On this basis, the groundwater technical assessment report assessed the potential effects of the storage pond on groundwater, neighbouring bores, and surface water bodies as less than minor.

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<sup>1</sup> See GWRC email to the Council dated 26 March 2023, Appendix A.

This assessment was made based on the storm storage pond being unlined. The works to line the storm storage pond will significantly reduce, if not eliminate, adverse effects on groundwater from the pond. As such, the limit on the current consent will no longer be necessary.

I trust this response addresses your concerns. Please let me know if you have any further questions.

Kind regards,



**Tess Drewitt**  
Consultant Compliance Officer

Date: 19 June 2023



**Ramesh Pillai**  
Acting Manager, Water & Wastewater Services

Date: 19 June 2023

**Appendix A – Correspondence with GWRC, March 2019.**