


Compliance monitoring assessment

Consent No:	WGN060236	Date: 30 September 2024	Monitoring officer: Emma Sinclair
Location:	Western Wastewater Treatment Plant, South Karori Road, Karori, Wellington		
Activities:	<p>Discharge permit to continuously discharge disinfected secondary (fully treated) effluent to CMA, occasionally discharge milli-screened (partially treated) effluent to CMA, occasionally discharge secondary treated and disinfected wastewater to Karori Stream, occasionally discharge milli-screened and settled wastewater to Karori Stream and discharge contaminants to air.</p> <p>There is also a land use consent to undertake works in the bed of the Karori Stream, a water permit to temporarily and permanently divert the flow of the Karori Stream and coastal permit to occupy the CMA (Outfall structure).</p>		
Compliance Period:	01 July 2023 to 30 June 2024		

Your compliance ratings

WGN060283 [35674] - Fully treated to Karori Stream WGN060283 [25230] - Air discharge		FULL COMPLIANCE All conditions met – well done! No further action required
WGN060283 [35675] - Partially treated to Karori Stream		LOW RISK NON-COMPLIANCE Most conditions met. Some action may be required
		MODERATE NON-COMPLIANCE Some condition(s) not met. Action required (see comments below)
WGN060283 [37892] - Fully treated to CMA WGN060283 [25227] - Partially treated to CMA		SIGNIFICANT NON-COMPLIANCE Many condition(s) not met. Immediate action required (see comments below)
WGN160340 [34178] - Stream Works WGN160340 [34179] - Stream Diversion WGN020236 [22098] - Outfall Structure		NOT ASSESSED

Overall compliance summary for Western Wastewater Treatment Plant and outfall pipeline:

FAIR 	Overall fair management of site and consents. The consent holder struggled to meet aspects of their consent requirements. There were more than occasional breaches of consent conditions that manage environmental effects and/or issues with meeting administrative related consent conditions.
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Comments

Amanda O'Brien (Senior Compliance, monitoring and enforcement officer) inspected the site on 13 May 2024. During this reporting period, there were significant non-compliances including unconsented discharges to the Karori Stream, unconsented effluent quality discharged to the Karori Stream and an unconsented dry weather discharge.

Many of the significant non-compliances result from the breakage of the Main Outfall Pipeline. The works to repair the pipeline were completed very shortly outside of the reporting period for 2023/2024. Thank you for addressing the work to repair the breakage as a priority.

The Consent Holder Manager (WWL) and Plant Operators (Veolia) facilitate monthly compliance meetings with GWRC, where on-going compliance issues and progress is discussed. Thank you for facilitating these meetings and keeping GWRC up to date with the operations of the Wastewater Treatment Plant.

The permits for WGN060283 [35674] and [35675] were granted in June 2010 with a 13-year duration. While the original expiry date is December 2023, WGN060283 [35674], [35675] are currently operation under Section 124 of the RMA.

Operational discharge of treated wastewater to coastal waters [37892]

Continuous discharge of treated wastewater to CMA

Condition 2 requires that the rate of discharge shall not exceed 200 litres per second (L/s) or 17,280 cubic metres per day (m³/day). Due to the breakage of the MOP section of the outfall pipeline, fully treated wastewater is being discharge to the Karori Stream instead of the Coastal Marine Area (CMA). Flow rates for the CMA discharge point are unavailable. This condition is non-compliant.

Condition 3 of this consent requires the discharge point shall be from the existing outfall, at or about NZMS 260: R27; 504.836.

In February 2022, the Western Wastewater Treatment Plant Outfall Pipeline collapsed following several heavy rainfall events. GWRC was updated on this breakage and the remedial works undertaken. Wastewater from this plant has been discharging to the Karori Stream rather than to the designated discharge point for the entirety of the compliance period (1 July 2023 to 30 June 2024).

This is a significant non-compliance and breach of s15(1)(a) of the Resource Management Act 1991 (RMA) which states that "*No person may discharge any contaminant or water into water unless the discharge is expressly allowed by a national environmental standard or other regulations, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent*".

Significant work has been done in attempt to repair the pipeline including over pumping and an initial fix which failed during a second major slip in August 2022.

- On 13 September 2023 Joshua Knowles (Senior Resource Advisor, GWRC) issued a formal warning for the discharge of treated wastewater from the Western WWTP to Karori Stream.

- Abatement notices A1081 and A1082 were issued on 17 January 2024 to WWL and WCC which specifically required them to complete (implement and make operational) the repairs to the Wastewater Treatment Plant main outfall pipeline by 09 May 2024.
- Abatement notices A1081 and A1082 were amended on 29 April 2024 to provide an extension of the timeframe to 01 August 2024.

Condition 5 requires a community liaison group (CLG) to be held annually. A CLG meeting was held on 2 May 2024, this is compliant with the requirement of condition 5.

Condition 6 of this consent requires the consent holder to continuously monitor and record the flow rate and volume of treated wastewater entering the outfall pipeline and the flow rate and volume of the wastewater discharged to the South Coast.

Appendix I of the quarterly reports contain the treatment plant effluent flow rate, however, due to flow of wastewater not reaching the designated discharge point on the South Coast, this flow rate not been recorded or submitted. This is a technical non-compliance.

Condition 10 sets effluent quality limits on the geometric mean and the 80th-percentile for BOD5, faecal coliforms, and suspended solids within the discharged effluent. The effluent quality was significantly non-compliant throughout the 2023-2024 compliance period.

Parameter	90-day geometric mean (20 g/m ³)	90-day 80 th percentile (50g/m ³)
BOD5	Significantly non-compliant	Significantly non-compliant
Suspended solids	Compliant	Compliant
Faecal Coliforms	Compliant	Compliant

BOD5 repeatedly exceeded the 80th-percentile limit of 50g/m³ between 01 November 2023 to 07 January 2024, briefly returning to compliance in December 2023. On 15 September 2023, the 90-day geometric mean of 20g/m³ was exceeded and remained non-compliant throughout the compliance period.

A summary of compliance:

- On 09 October 2023, WWL notified GWRC that the BOD5 effluent quality had become non-compliant with the 90-day geometric mean limit as of 24 September 2023.
- On 12 October 2023, a please explain was issued for the discharge of non-compliant effluent quality and on 30 October 2023, the response from WWL identified the likely cause of the non-compliant discharge as a direct result of the over-pumping that took place during Karori Tunnel upgrade works in September 2023.
- On 22 May 2024 infringement notices I973, I974 and I975 were issued to each Veolia Water New Zealand Limited, Wellington City Council and Wellington Water Limited for the non-compliance of condition 10 which is a breach of Section 15(1)(a) of the RMA.

- The annual report received on 31 July 2024 stated that the cause for the BOD5 increases were likely a direct result of:
 - An unexpected high biological load entering the plant from a nearby project to upgrade the Karori Storage Tunnel
 - A lack of prior knowledge of the high load, thus, no biological process adjustments were made beforehand to accommodate
 - On 09 October 2023, the scraper mechanism on one of the two clarifiers failed for a period of 4 days. The clarifier had to be taken offline to be repaired, contributing to the increase in BOD5.

Condition 15 requires visual and olfactory assessment of the receiving waters beyond the mixing zone at least once per month. Sampling was undertaken in accordance with these conditions. The quarterly report submitted to GWRC for the period of January-March 2024 outlined that sampling was not undertaken in March due to a lack of resources. This condition is non-compliant due to failure to sample in March.

Condition 16 requires the consent holder to collect representative coastal water samples from knee-deep water at four locations close to the outlet, once each month for five months from November to March inclusive (the bathing season) each year. The WWL annual report provides the results of this monitoring. Therefore, this condition was complied with.

Given the treated wastewater was not being discharged to the coastal discharge point at the times these samples were taken, the results are of limited value. As part of the works to fix of the pipeline, a sampling regime has been put in place to take water quality samples in the Karori Stream upstream, downstream and at the discharge location throughout the duration of the unauthorised discharge of treated wastewater to the Karori Stream.

Condition 23 requires an annual report to be submitted on the condition of the main outfall pipeline by 31 July each year. The annual inspection of the main outfall pipeline was delayed due to uncertainty over funding with the client council and was rescheduled for late July 2024. The report will be submitted outside of the 2023-2024 compliance period. This condition is technically non-compliant due to the delay.

Condition 25 requires the consent holder to collect representative water samples from the Karori Stream at four locations, once every fortnight for the duration of this permit. The results of these samples were provided in Appendix IV of the annual report. Therefore, this condition was complied with.

WGN060283 [25227] – occasionally discharge milli-screened (partially treated) effluent to the CMA.

Condition 1 of this consent requires the discharge point shall be in accordance with the consent application (at or about NZMS 260: R27; 504.836). Due to the breakage of Western Wastewater Treatment Plant Outfall Pipeline in February and August 2022, the discharge point has been located within the Karori Stream throughout the reporting period.

Any discharges in relation to this consent to Karori Stream rather than to the designated coastal outfall contravenes s15(1)(a) of the RMA which states that “*No person may discharge any contaminant or water into water unless the discharge is expressly allowed by a national environmental standard or other regulations, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent*”. This is a significant non-compliance.

Condition 2 states the discharge of milli-screened (partially treated) effluent shall only be exercised when the sewage inflow to the treatment plant exceeds 190 litres per second (L/s), and the 1000 m³ storage tank is full.

The annual report provided by the consent holder sets out that there were three bypass events in the relevant compliance period and that the requirements for this condition were met. While the exceedance conditions were met, the three bypasses were not consented under this resource consent, and as discussed above.

On 24 November 2023, there was a 1 hr and 31 minute unconsented discharge to the Karori Stream that was not related to wet weather events or maintenance/repairs/leaks. The discharge was due to a power-outage in the area resulting in the UV treatment system going offline. On 27 November 2023 a please explain was issued to Wellington Water Limited for the discharge of undisinfected wastewater. No further enforcement action was undertaken. Condition 2 is significantly non-compliant.

Condition 5 requires that any bypass discharges into the coastal marine area under this consent are recorded and sent to GWRC. The records of bypasses were provided to GWRC in Table 8 of the annual report. Due to the Outfall Pipeline breakage, flow rates at the consented discharge point were not recorded therefore, this condition is non-compliant.

Condition 6 requires the consent holder to provide rainfall data from Karori Reservoir rain-gauge for each of the 7 days preceding each overflow event. The consent holder provided this data as Figures 9 - 11 of the annual report, therefore, this condition was complied with.

Condition 7 requires the consent holder to carry out the effluent quality and receiving environment sampling each time a discharge under the consent has occurred for two or more hours. This was provided in Table 9 of the annual report, therefore, this condition was complied with.

Condition 8 requires comprehensive sampling when a discharge lasts for more than 10 hours. This condition is not applicable as there were no discharges that occurred longer than a period of 10 hours.

Condition 12 requires an annual Inflow and Infiltration report. This was provided in Appendix III of the WWL annual report, therefore, this condition was complied with. It is noted that no inflow surveys were undertaken in the Western WWTP Catchment during 2023 – 2024.

WGN060283 [35674] Occasional Discharge of Secondary Treated and Disinfected Wastewater to the Karori Stream

Condition 2 allows for the discharge of fully treated effluent to the Karori Stream when the sewage inflow to the treatment plant exceeds 190 litres per second (L/s), and the 1000 m³ storage tank is full. There were three discharges under this consent in the reporting period. These events had an inflow rate to the Western WWTP of greater than 190L/s and the 1000 m³ storage tank was full. This condition was complied with.

Condition 6 requires the consent holder to monitor the time, flow rate, duration and total volume of each of these bypass discharges into the Karori Stream and report the results to GWRC within 10 working days of the event occurring. This was summarised in Table 10 of the annual report, the notifications were provided within 10 working days. This condition was complied with.

Condition 7 requires data on the amount of rainfall recorded from Karori Reservoir rain-gauge for each of the 7 days preceding each overflow. This was provided in the WWL annual report. This condition was complied with.

Condition 8 requires effluent quality and receiving environment sampling for events that last longer than two hours, a summary of the results were provided in Table 11 of the annual report. This condition was complied with.

Condition 9 requires two representative samples from the Karori Stream (one upstream and one downstream of the discharge) if an overflow discharge has occurred for more than 24 hours. This condition is not applicable as there were no discharges that exceeded the 24-hour limit.

Condition 15 requires an annual Inflow and Infiltration report. This was provided in Appendix III of the annual report, therefore, this condition was complied with.

WGN060283 [35675] Occasional discharge of milli-screened and settled wastewater to Karori Stream

Condition 2 allows for the discharge milli-screened and settled wastewater from the Western Wastewater Treatment Plant to discharge into the Karori Stream when the sewage inflow to the treatment plant exceeds 390 litres per second (L/s), and the 1000 m³ storage tank is full. There were two discharges during this monitoring period, all of which had an inflow greater than 390 L/s and the 1000 m³ tank was full, therefore, this is compliant with condition 2.

Condition 5 requires the consent holder to monitor and record the time flow rate, duration and total volume of each of these bypass discharges into the Karori Stream and report the results to GWRC within 10 working days of the event occurring.

Table 13 of the annual report and discharge notifications detail these two events; however, the average bypass flowrate and the total volume of the bypass were not provided in this table. WWL confirmed that there is no flow meter to record the milliscreened and settled discharges as the discharge comes from a surcharging manhole. This is an on-going non-compliance that has been raised in previous compliance reports. I consider this to be a technical non-compliance with condition 5.

Condition 6 requires the amount of rainfall recorded from the Karori Reservoir rain-gauge for each of the 7 days preceding each overflow. Rainfall data was provided in the WWL annual report, therefore, this condition was complied with.

Condition 7 requires one representative grab sample of the milli-screened effluent prior to its entry into the Karori Stream if a discharge has occurred for more than one hour. There were two discharges in the compliance period that were over one hour in duration. The results of the sampling were provided in Table 14 of the annual report. This condition is compliant.

Condition 8 requires representative grab samples from the Karori Stream, upstream of the discharge point, if an overflow discharge has occurred for more than one hour be collected. Results of sampling were provided in Table 15 of the annual report. This is compliant with condition 8.

Condition 12 requires an annual Inflow and Infiltration report. This was provided in Appendix III of the WWL annual report, therefore, this condition was complied with.

[25230] Discharge to air permit

Condition 3 requires ambient microbe monitoring biannually. Monitoring was performed at the Western WWTP in November 2023 and May 2024. Monitoring confirmed the absence of Salmonella and Faecal Coliforms in the vicinity of the plant (Table 16 of the annual report). The condition is compliant.

Condition 4 requires annual biofilter monitoring and a report. The sites biofilter was assessed in November 2023 and the results of the assessment were provided in Appendix II of the annual report. It was identified that cell 1 required a media top up (of bark chip only) to ensure effective emissions management. Smoke testing identified that the bulk of emissions flow was being discharged into a small portion of the media in cell 2. It was further identified that the media in this area was severely degraded and requires excavation to identify and remediate the issue

Required action – By 21 October 2024 please advise if, and when the recommendations of the biofilter assessment will be completed.

The submission of the biofilter report and suggested actions are compliant with condition 4.

Condition 5 requires regular monitoring of the biofilter bed for short-circuiting and clogging, backpressure, moisture content and pH. Observations were summarised in Figures 18-20 of the annual report. Therefore, this condition was complied with.

Condition 10 requires a log of complaints received to be kept. The annual report states that no complaints were received during the 2023/2024 reporting period. GWRC has not received any odour notifications.

Conclusion

Please note that the Greater Wellington Regional Council (GWRC) has a responsibility to enforce the Resource Management Act 1991 (RMA). Accordingly, you should take all necessary steps to ensure you comply with your obligations under the RMA, including all conditions of your consent.

The major compliance issue at the Western WWTP during this compliance period is the breakage of the main outfall pipeline which is causing all wastewater discharged under the continuous discharge consent [37892] and overflow discharge consent [25227] to discharge to the Karori Stream rather than the consented discharge point into the CMA.

Your consent incurs variable compliance monitoring charges at your consent anniversary. These charges are likely to increase to reflect any additional time spent monitoring your consent to due to non-compliance.

GWRC compliance rating system

	<p>FULL COMPLIANCE – All conditions met – well done! No further action required</p> <ul style="list-style-type: none"> All conditions assessed are met including supplying information and/or records
	<p>LOW RISK NON-COMPLIANCE – Most conditions met. Some action may be required</p> <ul style="list-style-type: none"> Minor breach of effects based conditions or works outside scope of consent with low risk of adverse environmental effects Breach of conditions which is technical in nature (eg, failure to submit monitoring report or records)
	<p>MODERATE NON-COMPLIANCE – Some condition(s) not met. Action required</p> <ul style="list-style-type: none"> Repeated failure to supply monitoring report or records. Breach of conditions where there are some environmental consequences and/or moderate risk of adverse environmental effects
	<p>SIGNIFICANT NON-COMPLIANCE – Many condition(s) not met. Immediate action required</p> <ul style="list-style-type: none"> Breach of conditions where there are significant environmental consequences and/or high risk of adverse environmental effects

<p>VERY GOOD</p> <p>★★★★★</p>	<p>Overall excellent management of site and consents. The consent holder is proactive in meeting their consent requirements. If issues have arisen concerning consent conditions, the consent holder responds with promptness and effectiveness.</p>
<p>GOOD</p> <p>★★★★☆</p>	<p>Overall good management of site and consents. The consent holder is generally on top of meeting their consent requirements. Whilst there are some minor breaches of consent conditions, these have no ongoing environmental effects.</p>
<p>FAIR</p> <p>★★★☆☆</p>	<p>Overall the management of site and consents is considered to be fair. There are occasional breaches of consent conditions and/or lapses in providing information to GWRC.</p>
<p>POOR</p> <p>★☆☆☆☆</p>	<p>Overall the management of site and consents is considered to be poor. There are consistent and ongoing breaches of consent conditions. The consent holder is not getting on top of their consent requirements.</p>

Consent monitoring charges

<p>Each consent receives a consent monitoring charge from GWRC.</p> <p>This charge is made up of three parts:</p> <ul style="list-style-type: none"> A <i>customer service charge</i> that covers the administrative cost of your consent(s); A <i>compliance monitoring charge</i> that covers all actual and reasonable time associated with assessing compliance with your consent(s) including the time spent visiting and assessing your site, information and reports you submit, file notes, travel time and reporting to you on compliance with your consent(s); and A <i>State of the Environment (SoE) charge</i> that covers a proportion of the cost of GWRC monitoring the environment that relates to your activity. <p>For further information on consent monitoring charges, please see our <i>Resource Management Charging Policy</i>.</p>
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