

Porirua Wastewater Treatment Plant

July - Sept 2024

Quarterly Resource Consents Report

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CONTROL SHEET

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DOCUMENT CONTROL REGISTER

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0	Draft	31 October 2024	Original version for review.
1	Final	31 October 2024	Internal review.
2	Amended	14 November 2024	Four edits to address errors and omissions identified by WW.

EXECUTIVE SUMMARY

The following report was prepared by Veolia on behalf of the Porirua City Council (PCC) for the Greater Wellington Regional Council (GWRC). This report includes results and observations that satisfy the reporting requirements of Porirua Wastewater Treatment Plant resource consents.

WGN200229 [36816]

The Porirua WWTP is governed by the resource consent under the Greater Wellington Regional Council consent file number WGN200229. In general, the consent allows the discharge of treated effluent from the Porirua City Council's Wastewater Treatment Plant at Rukutane Point through an existing outfall at or about map reference NZMS 260:R27;320.097. The report will cover the quarterly period from April-June 2024, as requested in this resource consent. The following is a brief overview of the compliance with the consent conditions:

Resource Consent Condition	Compliant/Non-Compliant/Not Applicable
4	Compliant
5J (c)	Compliant
6	Compliant
7	Compliant
8	Non-Compliant
9	Compliant
9A	Compliant
10	Compliant
11	Compliant
12	Compliant
12(A)	Compliant
12(C)	Compliant
12(D)	Non-Compliant
14	Compliant
15	Compliant
16	Compliant
28	Compliant
29	Compliant
35A	Compliant

Table 1: WGN200229 [36816] Resource Consent Condition Compliance

WGN200229 [36727]

The Porirua WWTP is governed by the resource consent under the Greater Wellington Regional Council consent file number WGN200229 [36727]. In general, the consent allows the discharge of contaminants (odour) from the Porirua City Council's Wastewater Treatment Plant to the air at or about map reference NZMS 260: R27;632.096. The report will cover the quarterly period from April-June 2024 as additional information. The following is a brief overview of the compliance with the consent conditions:

Resource Consent Condition	Compliant/Non-Compliant/Not Applicable
5	Compliant
6	Compliant

Table 2: WGN200229 [36727] Resource Consent Condition Compliance

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GWRC issued four notices in the period, these are detailed under condition 12.

Condition (4)

4. The consent holder shall continuously monitor and record the daily volume of the inflow to and effluent from the wastewater treatment plant. The records shall be supplied to the Manager in accordance with conditions 18 and 19, and on request of the Manager.

Below are the daily volumes of the inflow to and effluent from the Porirua WWTP:

Day	July 2024		August 2024		September 2024	
	Daily Volume		Daily Volume		Daily Volume	
	Inflow m ³	Effluent m ³	Inflow m ³	Effluent m ³	Inflow m ³	Effluent m ³
1	51854	53253	35242	36172	46010	46766
2	33429	34380	34871	36412	31232	32684
3	25412	26748	28723	29843	87488	87189
4	25689	27210	27225	28103	55344	55957
5	21936	23981	23248	25300	36832	37265
6	21908	23746	22296	23960	30020	31630
7	22870	24172	20537	22529	29979	30278
8	19998	22525	23536	25267	30229	30616
9	20407	21778	27452	29317	27750	29053
10	19672	21484	25203	26235	26288	27716
11	19251	21027	24454	26360	24465	26086
12	18980	20620	22102	24127	23801	25087
13	20170	21472	19048	21570	30645	31515
14	21345	22550	20665	22914	31991	32661
15	21525	23230	20519	22783	30487	30709
16	20915	22874	18658	21218	80430	79808
17	20307	21719	25183	27005	65073	65251
18	19252	21376	64739	64722	36952	37418
19	19480	21857	39846	41245	30263	31265
20	37698	38674	27002	28883	29855	31146
21	26395	27770	24929	26124	26377	28411
22	22323	24095	22131	24354	29170	30530
23	21272	23116	36906	38060	24318	26805
24	21354	22925	30964	33156	24825	25576
25	20573	22277	45167	45473	23629	25007
26	18072	20928	89122	90780	23417	25419
27	19842	22282	63509	64918	21061	23556
28	24089	25387	38502	39313	23745	25133
29	28868	30048	37067	38837	23455	24043
30	66410	67343	29125	30785	17059	18313
31	29146	29559	33913	33635	-	-

Table 3. Daily Influent and Effluent volumes

Condition (5J(c))

5J (c) . If the alternate WWTPWG is established in accordance with condition 5I then the consent holder shall prepare, implement and review a Monitoring Plan in accordance with conditions 5E and 5F, except that the requirement in condition 5F(b) shall be replaced with the following:

i. The consent holder shall engage a suitable qualified coastal ecologist to conduct a visual survey of the quantity and size of range of paua, kina and lobster along the six transects used in the Cawthron (2019) ecological survey. The survey shall be undertaken once before the third anniversary of the commencement of the consent and also be included within the scope of any ecological survey undertaken in accordance with condition 28.

The ecological survey was not required during this reporting period.

Condition (6)

6. The consent holder shall, to the satisfaction of the Manager, identify a suitable place to sample the wastewater after it leaves the treatment plant but prior to it entering the Rakutane Point outfall. That sampling point shall be used for the sampling required by conditions 7 and 10.

Sampling point as required by condition 6 has been established.

Condition (7)

7. The consent holder shall each day, including weekends and public holidays, obtain a representative 24-hour flow-proportioned composite sample of the wastewater from the location identified in accordance with condition 6. This sample shall be analysed for total suspended solids and biochemical oxygen demand.

The results of the analysis required by Condition 7 are reported and assessed under Condition 12.

Condition (8)

8. The consent holder shall each day, including weekends and public holidays, between the hours of 9am and 5pm, obtain a representative grab sample of the wastewater from the location identified in accordance with condition 6. Prior to certification of the enterococci trigger under condition 21B this sample shall be analysed for UV transmissivity, faecal coliforms and enterococci. Following certification of the enterococci trigger under condition 21B the sample shall be analysed for enterococci and UV transmissivity.

See below

The following is a summary of the sampling and testing required under Condition 8. Faecal coliform compliance has been assessed under Condition 35A.¹

Day	July 2024			August 2024			September 2024		
	Faecal Coliforms	Enterococci	UVT	Faecal Coliforms	Enterococci	UVT	Faecal Coliforms	Enterococci	UVT
	cfu/100mL	cfu/100mL	%	cfu/100mL	cfu/100mL	%	cfu/100mL	cfu/100mL	%
1	24	60	54	58	10	59	45	10	58
2	16125	5000	53	134	10	62	10	10	61
3	9487	3600	65	14	10	66	10	10	64
4	13000	No data	65	14	10	66	94	50	58
5	5550	3500	58	100	10	64	10	10	62
6	1960	2200	66	114	10	63	20	10	64
7	1342	1200	64	134	10	62	10	10	66
8	12410	6000	65	10	10	61	10	40	63
9	3391	3300	64	14	10	64	122	10	62
10	361	110	62	74	10	66	77	10	65
11	100	40	60	114	10	62	39	10	63
12	134	50	58	100	10	63	86	10	64
13	59	170	58	10	10	63	10	10	64
14	124	160	60	10	10	59	160	10	65
15	1936	2000	62	32	10	61	53	10	64
16	2694	1700	61	77	10	63	10	10	66
17	678	900	60	10	10	61	14	30	62
18	1744	2000	64	10	10	60	10	10	64
19	438	1200	64	22	10	61	1000	No data ²	66
20	693	1000	63	45	10	62	89	10	65
21	510	360	63	105	40	64	10	10	69
22	2045	3400	63	77	20	66	10	10	67
23	2145	4800	63	10	30	65	63	10	64
24	7348	2600	63	10	10	66	89	10	62
25	10	10	61	10	10	64	114	10	65
26	141	20	63	134	80	65	89	10	63
27	73	10	62	57	10	64	10	10	65
28	10	10	57	45	10	64	122	10	65
29	173	10	54	10	10	65	118	10	64
30	529	10	62	10	10	66	10	10	64
31	566	10	60	41	10	64	-	-	-
Limits	2000	-	-	2000	-	-	2000	-	-

Table 4. Daily Faecal coliform, Enterococci and UVT results

¹ An investigation report was completed for the exceedances highlighted for July.(see, also, Condition 35A)

² No data was received from the lab for this sample making us non compliant with Condition 8

Condition (9)

9. The consent holder shall on at least one occasion each month, on a normal working day, obtain a representative 24-hour flow-proportioned composite sample of the wastewater from the location identified in accordance with condition 6. This sample shall be collected on the same day as the representative receiving water samples are collected under condition 14.

This sample shall be analysed for:

- a) Nitrate Nitrogen
- b) Nitrite Nitrogen
- c) Dissolved Reactive Phosphorus
- d) Total Nitrogen
- e) Total Phosphorus
- f) Total Arsenic
- g) Total Cadmium
- h) Total Chromium
- i) Total Copper
- j) Total Nickel
- k) Total Lead
- l) Total Zinc
- m) Total Mercury
- n) Phenol

Samples have been taken in accordance with Condition 9. The results are reported and assessed in Condition 12A.

Condition (9A)

9A. The consent holder shall on at least one occasion each week, on a normal working day, obtain a representative 24-hour flow-proportioned composite sample of the wastewater from the location identified in accordance with condition 6. This sample shall be analysed for Total Ammonia Nitrogen.

The following are the results of the sampling performed under Condition 9(A).

Day	July 2024	August 2024	September 2024
	Total Ammonia Nitrogen mg/L	Total Ammonia Nitrogen mg/L	Total Ammonia Nitrogen mg/L
1			
2			
3	16.8		
4			10.4
5			
6			
7		25.7	
8			
9			
10	22.9		
11			28.3
12			
13			
14		18.2	
15			
16			
17	35.7		
18			13.5
19			
20			
21			
22			
23			
24	31.4		
25			28.0
26			
27			
28		14.6	
29			
30			
31	15.6		
Limit	6 mg/L	6 mg/L	6 mg/L

Table 5. Weekly Total ammonia nitrogen

Dates, when the Total Ammonia Nitrogen weekly results exceed the 6 mg/L limit stated in Condition 33b are highlighted in red. Investigation of the Total Ammonia Nitrogen concentration increase is ongoing.

Condition (10)

10. The consent holder shall:

- a. At least once a calendar month between the hours of 9am and 5pm, obtain a representative grab sample of the influent to the wastewater treatment plant.
- b. At least once a week between the hours of 9am and 5pm, obtain a representative grab sample of the wastewater from the location identified in accordance with condition 6.

These samples shall be analysed for a suitable viral indicator, such as F-RNA bacteriophage. The requirement in this condition may be varied by certified updates to the Monitoring Plan under condition 10A.

The following are the results of the sampling performed under Condition 10.

July 2024				August 2024				September 2024			
Influent Monthly grab		Effluent Weekly grab		Influent Monthly grab		Effluent Weekly grab		Influent Monthly grab		Effluent Weekly grab	
F-RNA Bacteriophage		F-RNA Bacteriophage		F-RNA Bacteriophage		F-RNA Bacteriophage		F-RNA Bacteriophage		F-RNA Bacteriophage	
Date	PFU/l	Date	PFU/l	Date	PFU/l	Date	PFU/l	Date	PFU/l	Date	PFU/l
23/07/2024	34000000	02/07/2024	590	27/08/2024	130000	06/08/2024	10	24/09/2024	85000	03/09/2024	49
		09/07/2024	50			13/08/2024	10			10/09/2024	20
		16/07/2024	1900			20/08/2024	120			17/09/2024	10
		23/07/2024	15000			27/08/2024	2600			24/09/2024	10
		30/07/2024	10								

Table 6. Viral indicator testing

Condition (11)

11. All sampling techniques employed in respect of the conditions of this consent shall be acceptable to the Wellington Regional Council. All analyses undertaken in the connection with this consent shall be performed by and International Accreditation New Zealand (IANZ) registered laboratory, or otherwise as especially approved by the Wellington Regional Council.

Condition (12)

12. The quality of the wastewater sampled in accordance with condition 7 of this consent shall not exceed the following limits:

a. Suspended solids – The geometric mean of 90 consecutive daily suspended solid values shall not exceed 30 g/m³ and no more than 10% of 90 consecutive daily values shall exceed 75 g/m³

b. Biochemical oxygen demand –The geometric mean of 90 consecutive daily biological oxygen demand values shall not exceed 30 g/m³ and no more than 10% of 90 consecutive daily values shall exceed 75 g/m³

(i) Final Effluent Biochemical Oxygen Demand

Day	July 2024			August 2024			September 2024		
	Results	90-day Geometric Mean	90-day 90th Percent Compliance	Results	90-day Geometric Mean	90-day 90th Percent Compliance	Results	90-day Geometric Mean	90-day 90th Percent Compliance
	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³
1	212	9.8	23.1	8	12	24	9	11.3	21.6
2	8	9.8	23.1	10	12	24	6	11.2	21.6
3	6	9.7	23.1	8	12	24	7	11	21.6
4	4	9.5	23.1	11	12	24	4	10.8	21.6
5	13	9.5	23.1	10	13	24	127	11.2	24
6	8	9.5	23.1	11	13	24	4	11	21.6
7	65	9.8	24.1	10	13	24	7	10.8	21
8	7	9.8	24.1	7	13	24	7	10.7	21
9	5	9.9	24.1	11	13	24	10	10.5	19.4
10	6	9.7	23.1	9	13	24	10	10.5	19.4
11	21	9.8	23.1	11	13	24	9	10.6	19.4
12	37	10.1	24.1	12	13	24	7	10.5	19.4
13	18	10.1	23.1	7	13	24	9	10.5	19.4
14	24	10.1	23.1	6	13	24	11	10.5	19.4
15	21	10.1	23.1	5	13	24	22	10.7	21
16	19	10.2	23.1	12	13	24	15	10.7	21
17	18	10.4	23.1	17	13	24	9	10.7	21
18	16	10.6	23.1	15	13	24	8	10.7	21
19	24	10.8	24	8	13	24	9	10.7	21
20	35	11	24.1	9	13	24	13	10.7	21
21	27	11.2	25.2	6	13	24	12	10.7	21
22	15	11.4	25.2	7	12	24	20	10.8	21
23	15	11.6	25.2	12	12	24	20	10.8	21
24	12	11.6	25.2	8	12	24	23	10.9	21.2
25	12	11.8	25.2	8	12	24	22	11.1	22
26	11	11.9	25.2	10	12	24	37	11.3	22.2
27	9	12	25.2	3	12	23	22	11.4	22.2
28	10	12	25.2	11	12	23	19	11.4	22.2
29	11	12.1	25.2	7	12	23	12	11.1	22
30	13	12.2	25.2	4	11	23	17	11.2	22
31	6	12.2	24.2	15	11	23	-	-	-
Limits	-	30	75	-	30	75	-	30	75

Please note that analytical results highlighted in amber are above the 30g/m³ geometric mean limit. Analytical results highlighted in red are above the 75g/m³ percent compliance limit.

(ii) Final Effluent Suspended Solids

Day	July 2024			August 2024			September 2024		
	Results	90-day Geometric Mean	90-day 90th Percent Compliance	Results	90-day Geometric Mean	90-day 90th Percent Compliance	Results	90-day Geometric Mean	90-day 90th Percent Compliance
	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³	g/m ³
1	75	7.7	27.2	12	8	15	23	8.9	21
2	6	7.4	9	11	8	15	8	9	21
3	6	7.2	7	12	8	15	16	9.1	21
4	6	7.1	7	9	8	15	10	9.1	21
5	6	6.9	6.1	12	8	15	180	9.5	21
6	8	6.9	6.1	13	8	15	6	9.5	21
7	37	7.1	7	8	8	15	7	9.5	21
8	6	7.1	7.0	7	8	15	9	9.5	21
9	6	7.1	7.0	11	8	15	11	9.6	21
10	6	6.9	6.1	9	8	15	8	9.6	21
11	7	6.9	7	12	8	15	6	9.6	21
12	9	6.9	7	14	8	15	9	9.7	21
13	8	6.8	7	6	8	15	11	9.8	21
14	11	6.7	7	6	8	15	11	9.8	21
15	14	6.6	7	9	8	15	8	9.9	21
16	12	6.7	7.1	6	8	15	14	10.3	21
17	13	6.7	8	7	8	15	13	10.1	21
18	10	6.8	8.1	24	9	16	9	10.1	21
19	16	6.9	9.1	6	9	16	11	10.2	21
20	29	7	10.1	10	8	15	8	10.2	21
21	15	7.1	11.1	6	8	15	10	10.3	21
22	14	7.1	12.1	7	8	15	12	10.4	21
23	15	7.2	13.1	12	8	15	7	10.4	21
24	21	7.3	14	6	8	15	13	10.5	21
25	15	7.4	14.1	7	8	15	11	10.5	21
26	25	7.5	15	8	8	15	16	10.7	21
27	6	7.5	15	11	9	15	7	10.7	21
28	7	7.5	15	21	9	16	9	10.7	21
29	21	7.6	15	13	9	16	6	10.4	21
30	19	7.7	15.1	6	9	16	8	10.5	21
31	6	7.7	15.1	31	9	19	-	-	-
Limits	-	30	75	-	30	75	-	30	75

Table 8: Suspended Solid Geometric Mean and Percent Compliance

Please note that analytical results highlighted in amber are above the 30g/m³ geometric mean limit. Analytical results highlighted in red are above the 75g/m³ percent compliance limit.

On 2 July a please explain request was issued by GWRC relating to the discharge of undisinfected wastewater in the previous reporting period, a response was provided in the required timeframe.

Two infringement notices were issued on 3 July and 6 August. Both related to sludge carry-over events in March and April 2024 respectively.

An abatement notice (A1104) was issued on 22 July relating to an unauthorised discharge.

Condition (12A)

12A. Concentrations of metals and other compounds in the sample required under condition 9 shall not exceed:

Metals/metalloids and phenols

- a. Total Arsenic 0.023 g/m³
- b. Total Cadmium 0.055 g/m³
- c. Total Chromium 0.044 g/m³
- d. Total Copper 0.013 g/m³
- e. Total Nickel 0.07 g/m³
- f. Total Lead 0.044 g/m³
- g. Total Zinc 0.08 g/m³
- h. Total Mercury 0.001 g/m³
- i. Phenol 2.7 g/m³

Compound	Units	Limit	July 2024	August 2024	September 2024
Total Arsenic	g/m ³	0.023	0.002	0.004	0.002
Total Cadmium	g/m ³	0.055	0.001	0.001	0.001
Total Chromium	g/m ³	0.044	0.002	0.002	0.002
Total Copper	g/m ³	0.013	0.006	0.004	0.002
Total Nickel	g/m ³	0.07	0.001	0.001	0.001
Total Lead	g/m ³	0.044	0.001	0.001	0.001
Total Zinc	g/m ³	0.08	0.023	0.016	0.005
Total Mercury	g/m ³	0.001	0.001	0.001	0.001
Phenol	g/m ³	2.7	0.01	0.01	0.01
Nitrate Nitrogen	g/m ³	-	0.02	0.03	0.33
Nitrite Nitrogen	g/m ³	-	0.02	0.03	0.33
Dissolved Reactive Phosphorus	g/m ³	-	2.29	0.389	1.54
Total Nitrogen	g/m ³	-	0.32	0.30	1.17
Total Phosphorus	g/m ³	-			

Table 9. Monthly heavy metals and phenol

This condition was compliant for the period.

Condition (12C)

12C The consent holder shall maintain a UV Transmissivity monitoring probe in the Duron UV system. The probe shall be linked to the treatment plant's SCADA system, with records of the hourly average UV transmissivity kept by the consent holder based on values observed at 5-minute intervals.

The graph below summarises the UVT hourly rolling average.

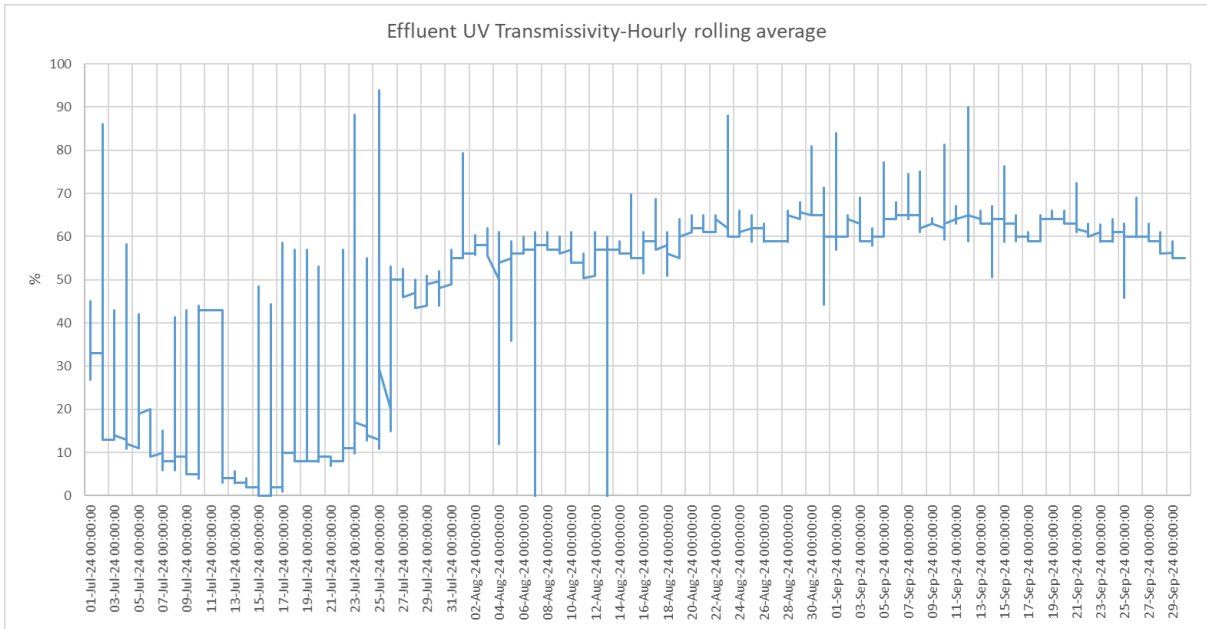


Figure 1: UVT values during July-September 2024 - online measurement

This condition was compliant for the period.

Condition (12D)

12D If the hourly average UV transmissivity recorded in accordance with 12C reduces below 45% then the consent holder shall:

- a. Notify the Manager as soon as practicable; and
- b. Initiate an investigation that meets the following requirements.

The investigation shall:

- i. Be undertaken by a suitably qualified and experienced professional.
- ii. Consider the results of the suspended solids monitoring, UV transmissivity from the daily grab samples, and other relevant plant performance measurements routinely taken by the consent holder.
- iii. Assess the likely cause of the UV transmissivity reducing below 45%.
- iv. If considered necessary, recommend further investigations, improvements, operational actions (including changes to the OMCP) or upgrades to reduce the risk of similar UV transmissivity records occurring in the future.
- v. Include an implementation programme for the recommendations, if any, set out in accordance with (iv).
- vi. Within 10 working days of the hourly average UV transmissivity falling below 45%, the consent holder shall inform the Manager of the outcomes of the investigation and which of the recommendations made in accordance with (iv) and (v) above it proposes to implement or has already implemented.

Refer to the graph for 12C (above) for UVT performance. The UVT value decreased below the 45% limit on a number of occasions during July. This was investigated and two main causes were identified. The first cause was that due to ongoing issues with the Duron system the more reliable TAK UV system was in operation during the hours when the plant was not manned. During this time, there was no flow in the Duron channel, and water was still resulting in unrepresentative UVT readings.

The second cause was identified as an ineffective cleaning chemical and calibration issues. The actual readings from the grab samples indicated in the graph below show that the actual UVT was much higher than what was indicated by the online monitor.

Both these issues were resolved by the end of July resulting in a noticeable increase in the on-line UVT readings.

Condition (14)

14. The consent holder shall collect representative receiving water samples from approximately 150 mm below the surface of water that is at least 500mm deep, once each calendar month at the following locations:

- At or about 140 metres generally east of the outfall.
- At or about 200 metres generally southwest of the outfall.
- Titahi Bay Beach generally at Toms Road.
- A control site, at a location to the satisfaction of the Manager.

Coordinates for all sampling sites shall also be recorded using a handheld GPS and provided in annual monitoring reports required under condition 19.

For each water sample collected under this condition, the consent holder shall record the site name, date, time, weather, wind, tidal conditions, pH, salinity, dissolved oxygen and water temperature at each sampling location.

The following is a summary of the monthly shoreline monitoring performed as part of resource consent WGN200229 [36816], Condition 14,

Date	Enterococci	pH	Salinity	Dissolved Oxygen	Temp.	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	-	g/m3	g/m3	C	--	--	--	--
29/07/2024	10	8.11	34	11.56	13.1	S	Mod	Low	Flood
27/08/2024	300	8.11	2	11.56	13.1	S	Mod	Low	Flood
25/09/2024	10	8.12	33	12.47	14.2	NW	Light	Low	Ebb

Table 11: Shoreline Monitoring- 140m generally eastwards of the outfall

Date	Total Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Dissolved Reactive Phosphorus	Total Nitrogen	Total Phosphorus
dd/mm/yyyy	g/m3	g/m3	g/m3	g/m3	g/m3	g/m3
29/07/2024	0.02	0.01	0.01	0.011	0.1	0.05
27/08/2024	0.32	0.01	0.01	0.011	0.10	0.060
25/09/2024	0.02	0.01	0.01	0.010	0.01	0.025

Table 12: Shoreline Monitoring- 140m generally eastwards of the outfall

Date	Enterococci	pH	Salinity	Dissolved Oxygen	Temp.	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	-	g/m3	g/m3	C	--	--	--	--
29/07/2024	10	8.21	33	11.7	13.5	S	Mod	Low	Flood
27/08/2024	80	8.21	36	11.7	13.5	S	Mod	Low	Flood
25/09/2024	10	8.08	33	12.78	13.9	NW	Light	Low	Ebb

Table 13: Shoreline Monitoring- 200m generally southwestwards of the outfall

Date	Total Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Dissolved Reactive Phosphorus	Total Nitrogen	Total Phosphorus
dd/mm/yyyy	g/m3	g/m3	g/m3	g/m3	g/m3	g/m3
29/07/2024	0.26	0.01	0.01	0.023	0.1	0.122
27/08/2024	0.28	0.01	0.01	0.029	0.05	0.093
25/09/2024	0.18	0.01	0.01	0.022	0.1	0.025

Table 14: Shoreline Monitoring-200m generally southwestwards of the outfall

Date	Enterococci	pH	Salinity	Dissolved Oxygen	Temp.	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	-	g/m3	g/m3	C	--	--	--	--
29/07/2024	30	8.14	-	11.61	13.4	S	Mod	Low	Flood
27/08/2024	320	8.14	-	11.61	13.4	S	Mod	Low	Flood
25/09/2024	10	8.07	-	12.62	14.1	NW	Light	Low	Ebb

Table 15: Shoreline Monitoring- Titahi Bay Beach At Toms Road - Surf Club

Date	Enterococci	pH	Salinity	Dissolved Oxygen	Temp.	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	-	g/m3	g/m3	C	--	--	--	--
29/07/2024	10	8.08	34	11.78	13.1	S	Mod	Low	Flood
27/08/2024	1100	8.08	31	11.78	13.4	S	Mod	Low	Flood
25/09/2024	10	8.14	33	13.91	14.2	NW	Light	Low	Ebb

Table 16: Shoreline Monitoring- Control site

Date	Total Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Dissolved Reactive Phosphorus	Total Nitrogen	Total Phosphorus
dd/mm/yyyy	g/m3	g/m3	g/m3	g/m3	g/m3	g/m3
29/07/2024	0.01	0.01	0.01	0.009	0.1	0.05
27/08/2024	0.02	0.01	0.01	0.010	0.13	0.075
25/09/2024	0.02	0.01	0.01	0.008	0.01	0.025

Table 17: Shoreline Monitoring- Control site

Condition (15)

15. The samples collected from sites (a) to (d) in condition 14 shall be analysed for enterococci. In addition, the samples collected from sites (a), (b) and (d) shall be analysed for total ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, dissolved reactive phosphorus, total nitrogen and total phosphorus.

All monitoring performed for the condition has been provided in the previous sections of this report under Condition 14.

Condition (16)

16. In the event of an incident notified under condition 22A and / or a discharge of partially treated wastewater, the consent holder shall:

- a. Notify the Manager as soon as practicable of the timing of the discharge, and the reason for the incident and / or the partially treated discharge.
- b. Take samples at the locations specified in condition 14 as soon as it is safe to do so, within 24 hours of the discharge commencing, and also approximately 48 hours after the discharge commenced, if it is safe to do so.
- c. Analyse the samples in accordance with condition 15.
- d. Assess compliance with condition 13.

Visible discoloration in the coastal outfall vicinity was observed in August 2024 and investigated.

Condition (28)

28. The consent holder shall commission an ecological survey of the receiving waters for the discharge. The survey shall involve the collection of information on the biota of the intertidal and shallow-subtidal habitats adjacent to the existing outfall at Rakutane Point, at Round point to the west of the existing outfall, and at a reference location 300m east of the outfall. The survey methods should be comparable with those used for the ecological survey included in Appendix F in the application. The results of the survey shall be incorporated into a report prepared by a suitably qualified and experienced coastal ecologist.

As per condition 29, the survey was not required during the reporting period.

Condition (29)

29. A survey and report required under condition 28 shall be completed and submitted to the Manager:
- a) Between the 8th and the 9th anniversary of the commencement of this consent, and
 - b) Between the 14th and 15th anniversary of the commencement of this consent.

The survey was not required during the reporting period.

Condition (35A)

35A. If:

a. Prior to certification of the enterococci trigger under condition 21B, monitoring undertaken in accordance with condition 8 identifies that the concentration of faecal coliforms in the treated wastewater has exceeded 2,000 cfu per 100 millilitres on 2 or more consecutive days; or

b. Following certification of the enterococci trigger under condition 21B, monitoring undertaken in accordance with condition 8 identifies that the enterococci concentration in the treated wastewater has exceeded the enterococci trigger value set in accordance with condition 21B on 2 or more consecutive days, then the consent holder shall:

i. Notify the Manager as soon as practicable after receipt of results showing that the faecal coliforms or enterococci trigger has been exceeded for 2 consecutive days; and

ii. Initiate an investigation that meets the following requirements.

The investigation shall:

c. Be undertaken by a suitably qualified and experienced professional.

d. Consider the results of the UV transmissivity monitoring undertaken in accordance with condition 8.

e. Assess the likely cause of the exceedance of the faecal coliforms or enterococci trigger value.

f. If considered necessary, recommend further investigations, improvements, operational actions or upgrades to reduce the risk of similar exceedances of the trigger value occurring in the future.

g. Include an implementation programme for the recommendations, if any, set out in accordance with (f).

Within 1 calendar month of the receipt of results showing that the faecal coliforms or enterococci trigger has been exceeded for 2 consecutive days, the consent holder shall inform the Manager of the outcomes of the investigation and which of the recommendations made in accordance with (f) and (g) above it proposes to implement.

The faecal coliform results reported under Condition 8 exceeded 2,000 cfu per 100 millilitres on two or more consecutive days in three instances in July and an investigative report was completed and sent to GWRC on 30 August in accordance with this condition.

Condition 5

5. The consent holder shall keep a record of any complaints received. The complaints will be forwarded to the Manager within twenty-four hours of the complaint being received by the consent holder. The consent holder shall record:
- a. The complainant's name (if provided).
 - b. The location of the odour incident.
 - c. The time of the odour incident.
 - d. The wind direction and speed.
 - e. The plant operating conditions at the time of the complaint.

Details on odour complaints are published on the Wellington Water website.

<https://www.wellingtonwater.co.nz/resources/topic/wastewater/wastewater-treatment-plants/porirua-wastewater-treatment-plant/>.

No odour complaints were received during the reporting period.

Condition 6

6. Any incident that may cause or has caused adverse effects on the environment at or beyond the site boundary shall be notified to the Manager within twenty-four hours. This includes any incidents that result in complaints. A written report detailing the reasons for the incident, measures to mitigate the incident and measures to prevent recurrence shall be forwarded to the Manager within seven working days.

Details on odour complaints are published on the Wellington Water website.

<https://www.wellingtonwater.co.nz/resources/topic/wastewater/wastewater-treatment-plants/porirua-wastewater-treatment-plant/>.

No odour complaints were received during the reporting period.

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