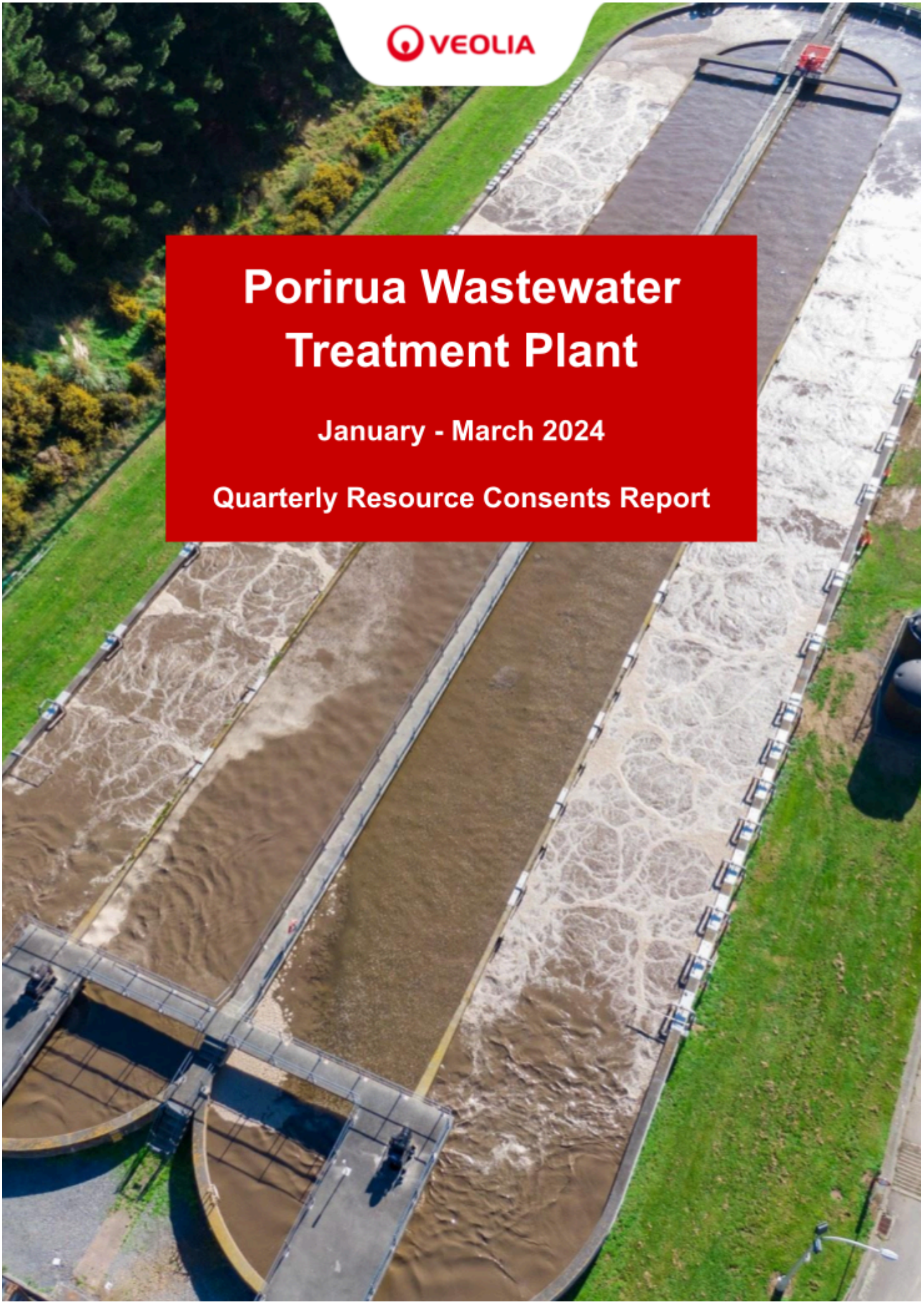

Porirua Wastewater Treatment Plant

January - March 2024

Quarterly Resource Consents Report

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CONTROL SHEET

Document Title: Porirua Wastewater Treatment Plant January-March 2024 Quarterly Resource Consents Report

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DOCUMENT CONTROL REGISTER

Version	Status	Date	Details of Revision
0	Draft	30/04/2024	Original version for review.
1	Final	01/05/2024	Internally reviewed.

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 the following 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 January-March 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	Non-Compliant
5J (c)	Compliant
6	Compliant
7	Compliant
8	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	Non-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 the or about map reference NZMS 260: R27;632.096. The report will cover the quarterly period from January-March 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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WGN200229 [36816]

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.

Wellington Water performed an assessment of the effluent flow meter and determined it was installed improperly. The flow measurements are inaccurate even after several calibrations. An assumption was made that the influent flow rate is equal to the effluent flow rate. Please note the flow rates highlighted in red are above the consented effluent discharge limits as stated in the resource consent. Because the inlet flow rate to the plant is dictated by the wastewater network, this is an excepted obligation.
The effluent flow meter controller has been offline as there has been an electrical issue. For the final flow calculation inlet flow readings from both UV channels (Duron and TAK UV channels) were totalised.

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

Day	January 2024		February 2024		March 2024	
	Daily Volume		Daily Volume		Daily Volume	
	Inflow	Effluent	Inflow	Effluent	Inflow	Effluent
	m^3	m^3	m^3	m^3	m^3	m^3
1	18771	17670	20396	19876.12	17128	17773.41
2	18509	17439	21957	21881.01	18465	17957.51
3	19147	17424	24829	25193.72	21557	19420.88
4	17503	17512	22880	22938.6	32957	28618.27
5	18063	17410	21097	20072.59	21844	21939.96
6	20915	18603	21956	21562.63	19515	20340.78
7	20627	18796	20492	19422.35	17567	16988.22
8	19255	18283	21723	19654.61	17803	17376.84
9	19149	18118	21522	19262.74	19239	18252.08
10	19001	17956	20551	21191.75	20424	18170.89
11	19206	18218	23174	21838.17	18938	17709.24
12	17650	17374	21687	20309.48	18500	17677.1
13	18066	16978	20436	19436.2	18927	18366.44
14	19454	17855	18957	19216.58	18210	17588.91
15	19064	17361	19931	19930.2	20468	19487.29
16	20499	17868	18080	18056.62	19849	20766.17
17	19183	17446	18403	17887.1	21508	20076.89
18	19558	17053	20421	19040.28	20074	18266.01
19	19166	17145	19537	17397.54	18915	#VALUE!
20	19611	17437	20647	17489.71	19561	18456.01
21	18867	17714	18190	18822.19	18417	18510.11
22	21058	18265	19170	19319.63	18588	17801.67
23	18379	17974	19032	18659.42	19703	18202.39
24	20816	17435	22642	21311.46	20900	18426.25
25	18907	17362	22583	26942.8	19758	18802.54
26	20116	17456	21137	20245.98	18882	19753.47
27	26173	26750	20699	19133.03	18562	18554.6
28	21928	22563	19529	19419.24	18293	17349.51
29	20629	21442	18573	17603	20375	18418.6
30	21732	19852	20396	-	19568	18114.09
31	21547	19589	21957	-	17551	17391.6

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 Monitoring plan has been prepared, established and reviewed during the January-March 2024 reporting period. 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.

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

Day	January 2024			February 2024			March 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	10	10	67	35	10	67	212	10	67
2	59	10	67	93	150	62	118	10	67
3	297	10	67	110	10	66	77	140	63
4	83	10	66	17	40	65	148		62
5	10	10	68	1368	250	64	1897	70	60
6	10	10	66	303	80	62	110	10	69
7	10	10	62	392	370	63	10	10	62
8	65	60	64	395	520	66	200	10	66
9	10	10	65	10	10	68	108	10	64
10	14	10	65	162	420	67	22	10	65
11	82	10	67	39	30	67	167	70	62
12	10	10	64	1500	560	65	245	50	60
13	37	30	64	10	10	63	161	10	62
14	14	10	64	5348	2600	65	118	10	61
15	10	20	60	3924	1800	66	63	10	62
16	10	10	64	146	1600	66	30	10	66
17	141	40	64	10	10	68	10	80	65
18	161	10	64	10	10	69	438	10	62
19	110	10	66	28	10	68	30	10	63
20	17	10	68	10	10	62	40	30	62
21	10	10	65	10	10	66	14	10	65
22	10	10	63	77	40	65	46	300	63
23	20	30	65	14	10	67	14	50	64
24	47	10	61	26	10	67	10	70	64
25	10	10	62	361	180	67	20	70	63
26	10	10	67	141	230	69	458	140	62
27	110	20	64	14	10	68	14		64
28	10	10	66	10	10	68	10	200	63
29	390	40	65	10	10	67	130	10	63
30	45	10	67	-	-	-	155	10	65
31	24000	3800	68	-	-	-	148	10	65
Limits	**2000**	**–**	**-**	**2000**	**–**	**-**	**2000**	**–**	**-**

Table 4. Daily Faecal coliform, Enterococci and UVT results

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	January 2024	February 2024	March 2024
	Total Ammonia Nitrogen	Total Ammonia Nitrogen	Total Ammonia Nitrogen
	mg/L	mg/L	mg/L
1			
2			
3	0.14		
4			
5			
6			0.25
7		0.52	
8			
9			
10	0.24		
11			
12			
13			0.08
14		21.6	
15			
16			
17	0.19		
18			
19			
20			0.13
21		3.1	
22			
23			
24	0.61		
25			
26			
27			0.91
28		0.26	
29			
30			
31	0.56		
Limit	6 mg/L	6 mg/L	6 mg/L

Table 5. Weekly Total ammonia nitrogen

Total Ammonia Nitrogen weekly results exceed the 6 mg/L limit stated in Condition 33b on February 14th 2024.

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.

January 2024				February 2024				March 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
07/01/2024	2.00x 10^6	02/01/2024	10	23/02/2024	8.5x 10^5	05/02/2024	110	13/03/2024	1.3X10^6	12/03/2024	39
		09/01/2024	10			13/02/2024	10			19/03/2024	29
		16/01/2024	10			20/02/2024	10			25/03/2024	10
		23/01/2024	110			27/02/2024	120				
		30/01/2024	60								

Table 6. Viral indicator testing

Condition (11)

11. All sampling techniques employed in respect of the conditions of this content 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	January 2024			February 2024			March 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	6	4.4	10.3	4	4.3	9.1	4	4.2	8.1
2	3	4.3	8.2	6	4.3	9.1	3	4.2	8.1
3	3	4.2	8.2	3	4.3	9.1	4	4.2	8.1
4	5	4.3	8.2	2	4.3	9.1	14	4.3	9.0
5	5	4.2	7.1	5	4.2	8.1	3	4.3	9.0
6	6	4.2	7.1	5	4.2	8.1	3	4.3	9.0
7	3	4.2	7.1	2	4.2	8.1	3	4.3	9.0
8	3	4.2	7.1	2	4.1	8.0	3	4.3	9.0
9	3	4.1	7.1	2	4.1	8.0	11	4.3	9.0
10	3	4.1	7.1	2	4.0	8.0	6	4.3	9.0
11	3	4.1	7.1	2	4.0	8.0	9	4.3	9.0
12	8	4.1	8.0	4	4.0	8.0	6	4.3	9.0
13	19	4.2	8.2	10	4.1	8.1	12	4.4	9.1
14	4	4.2	8.2	6	4.1	8.1	12	4.5	10.0
15	2	4.1	8.2	7	4.1	8.1	8	4.5	10.0
16	3	4.1	8.2	12	4.2	9.1	7	4.6	10.0
17	2	4.1	8.2	3	4.2	9.1	48	4.7	10.1
18	2	4.1	8.2	3	4.1	8.1	14	4.8	11.1
19	3	4.1	8.2	6	4.1	8.1	11	4.9	11.1
20	5	4.1	8.2	7	4.1	8.0	21	4.9	12.0
21	17	4.1	10.3	9	4.1	8.1	5	4.9	12.0
22	9	4.2	10.3	4	4.2	8.1	5	5.0	12.0
23	7	4.2	10.3	3	4.2	8.1	7	5.0	12.0
24	8	4.2	10.3	3	4.1	8.1	7	4.9	11.1
25	7	4.2	10.3	4	4.2	8.1	7	4.9	11.1
26	6	4.2	9.1	4	4.2	9.0	6	4.9	11.1
27	8	4.2	9.1	5	4.3	9.0	7	5.0	11.1
28	6	4.3	9.1	3	4.3	9.0	6	5.0	11.1
29	6	4.3	9.1	3	4.2	8.1	5	5.1	11.1
30	4	4.3	9.1	-	-	-	6	5.1	11.1
31	3	4.3	9.1	-	-	-	10	5.1	11.1
Limits	–	30	75	–	30	75	–	30	75

Table 7: BOD_5 Geometric Mean and Percent Compliance

Please note that analytical results highlighted in amber are above the 30g/m^3 geometric mean limit. Analytical results highlighted in red are above the 75g/m^3 percent compliance limit.

(ii) Final Effluent Suspended Solids

Day	January 2024			February 2024			March 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	5	6.7	10.1	6	6.5	8.1	6	6.2	7.0
2	7	6.6	8.2	12	6.5	8.1	6	6.2	7.0
3	5	6.6	8.2	6	6.6	9.1	6	6.3	7.0
4	6	6.6	8.2	6	6.5	8.1	548	6.6	7.0
5	6	6.5	7.1	6	6.4	7.1	6	6.6	7.0
6	6	6.5	7.1	6	6.4	7.1	6	6.6	7.0
7	6	6.5	7.1	6	6.4	7.1	6	6.6	7.0
8	6	6.5	7.1	6	6.3	7.0	6	6.6	7.0
9	6	6.5	7.1	6	6.3	7.0	27	6.7	7.0
10	6	6.5	7.1	6	6.3	7.0	6	6.7	7.0
11	6	6.5	7.1	6	6.3	7.0	7	6.6	7.0
12	6	6.5	7.1	6	6.3	7.0	8	6.7	7.0
13	6	6.5	7.1	6	6.3	7.0	85	6.9	7.1
14	7	6.5	7.1	6	6.3	7.0	12	6.9	8.1
15	6	6.5	7.1	6	6.3	7.0	6	6.9	8.1
16	6	6.5	7.1	6	6.3	7.0	6	6.9	8.1
17	6	6.5	7.1	6	6.3	7.0	82	7.1	9.3
18	6	6.5	7.1	6	6.2	7.0	62	7.3	12.0
19	6	6.5	7.1	6	6.2	7.0	62	7.5	12.0
20	6	6.5	7.1	6	6.1	7.0	25	7.6	12.0
21	22	6.6	8.2	6	6.1	7.0	6	7.6	12.0
22	7	6.6	8.2	6	6.2	7.0	6	7.6	12.0
23	6	6.6	8.2	5	6.2	7.0	6	7.6	12.0
24	6	6.6	8.2	3	6.1	7.0	6	7.6	12.0
25	6	6.6	8.2	6	6.1	7.0	6	7.6	12.0
26	6	6.5	7.1	6	6.2	7.0	6	7.6	12.0
27	6	6.5	7.1	6	6.2	7.0	6	7.6	12.0
28	9	6.5	8.1	12	6.2	7.0	6	7.6	12.0
29	6	6.5	8.1	7	6.2	7.0	10	7.7	12.0
30	6	6.5	8.1	-	-	-	6	7.7	12.0
31	6	6.5	8.1	-	-	-	9	7.7	12.0
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/m^3 geometric mean limit. Analytical results highlighted in red are above the 75g/m^3 percent compliance limit.

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

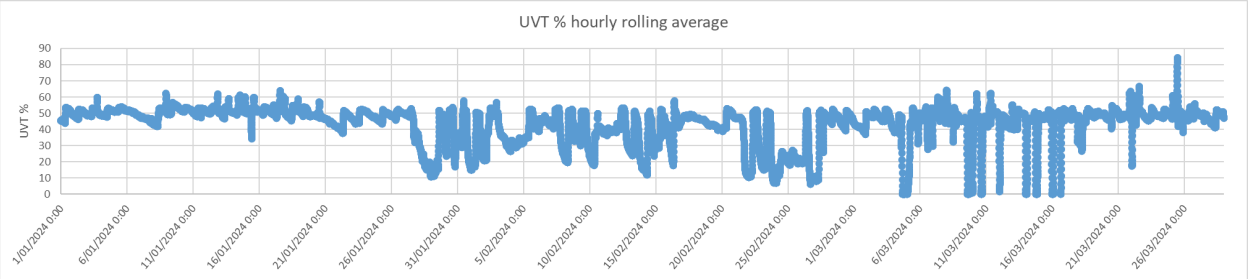
Compound	Units	Limit	January 2024	February 2024	March 2024
Total Arsenic	**g/m^3**	**0.023**	0.002	0.002	0.002
Total Cadmium	**g/m^3**	**0.055**	0.001	0.001	0.001
Total Chromium	**g/m^3**	**0.044**	0.001	0.001	0.002
Total Copper	**g/m^3**	**0.013**	0.002	0.002	0.002
Total Nickel	**g/m^3**	**0.07**	0.018	0.020	0.001
Total Lead	**g/m^3**	**0.044**	0.001	0.001	0.001
Total Zinc	**g/m^3**	**0.08**	0.001	0.001	0.021
Total Mercury	**g/m^3**	**0.001**	0.001	0.001	0.001
Phenol	**g/m^3**	**2.7**	0.010	0.010	0.010
Nitrate Nitrogen	**g/m^3**	**-**	0.26	1.64	1.24
Nitrite Nitrogen	**g/m^3**	**-**	0.11	0.17	0.06
Dissolved Reactive Phosphorus	**g/m^3**	**-**	3.44	2.57	3.54
Total Nitrogen	**g/m^3**	**-**	63.2	3.27	5.26
Total Phosphorus	**g/m^3**	**-**	7.38	3.62	3.59

Table 9. Monthly heavy metals and phenol

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.



It has been observed that the UVT readings are not reliable and have fluctuated significantly since the 19th of September. The instrument supplier was on-site investigating, and they have recommended improvements such as installing the instrument in a horizontal position which might provide a more representative reading. Cleaning method based on air scouring was suggested as well. Adjustments as per recommendations are ongoing at the time of preparing this report.

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.

There have been a number of occasions where the UVT value decreased below 45%. However because of the uncertainty around the conditions of the new resource consent, investigations on these events were initiated in March 2024. Dates for reported events were as follows:

Date	Investigation report submitted	Investigation Outcomes
04/03/2024	11/04/2024	High inlet flows combined with high biomass volume accumulation in the treatment process
15/03/2024	11/04/2024	
16/03/2024	11/04/2024	

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:

a. At or about 140 metres generally east of the outfall.
b. At or about 200 metres generally southwest of the outfall.
c. Titahi Bay Beach generally at Toms Road.
d. 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,

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	--	--	--	--
17/01/2024	10	8.46	33	10.99	22.2	NW	Light	Mid	Flood
26/02/2024	10	7.7	38	9	17.5	None	None	Low	Flood
25/03/2024	20	7.9	39	10	17.3	SW	Strong	High	Flood

Table 4: Shoreline Monitoring

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
17/01/2024	0.170	0.10	0.1	0.05	0.068	0.075
26/02/2024	0.36	0.1	0.1	0.005	0.14	0.012
25/03/2024	0.21	0.1	0.1	0.05	0.47	0.05

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	--	--	--	--
17/01/2024	30	8.35	33	13.11	22.1	NW	Light	Mid	Flood
26/02/2024	10	7.69	38	9	17.8	None	None	Low	Flood
25/03/2024	300	7.4	38	9	17.8	SW	Strong	High	Flood

Table 4: Shoreline Monitoring

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
17/01/2024	0.13	0.10	0.1	0.028	0.59	0.084
26/02/2024	0.34	0.01	0.01	0.015	0.15	0.038
25/03/2024	0.2	0.1	0.1	0.045	2.31	0.1

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	--	--	--	--
17/01/2024	10	8.41	35	9.38	22.42	NW	Light	Mid	Flood
26/02/2024	10	7.6	38	9	28.5	None	None	Low	Flood
25/03/2024	120	8	39	10	17.5	SW	Strong	High	Flood

Table 4: Shoreline Monitoring

Control

Date	Enterococci	pH	Salinity	Dissolved Oxygen	Temp.	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	-	g/m3	g/m3	C	--	--	--	--
17/01/2024	10	8.36	33	10.69	22.5	NW	Light	Mid	Flood
26/02/2024									
25/03/2024									

Table 4: Shoreline Monitoring

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
17/01/2024	0.15	0.10	0.1	0.005	0.59	0.046
26/02/2024						
25/03/2024						

Table 22: Shoreline Monitoring

Samples from the control site have not been collected during February and March since there is no access to the control site due to the road closure.

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 on 4th March and 16 March 2024. Full investigation of the event was conducted and a response to the Please explain letter (V/RWTP/2024/16) was submitted to GWRC on 4 April 2024.

Condition (28)

28.The consent holder shall commision 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 January- March 2024 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 January- March 2024 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 the 14th and 15th of February 2024. An investigation was completed on the 7th March and submitted to WWL.

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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 complaints received during the January-March 2024 reporting period have been published on the Wellington Water website.
https://www.wellingtonwater.co.nz/resources/topic/wastewater/wastewater-treatment-plants/porirua-wastewater-treatment-plant/.

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 complaints received during the January-March 2024 reporting period have been published on the Wellington Water website.
https://www.wellingtonwater.co.nz/resources/topic/wastewater/wastewater-treatment-plants/porirua-wastewater-treatment-plant/.

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