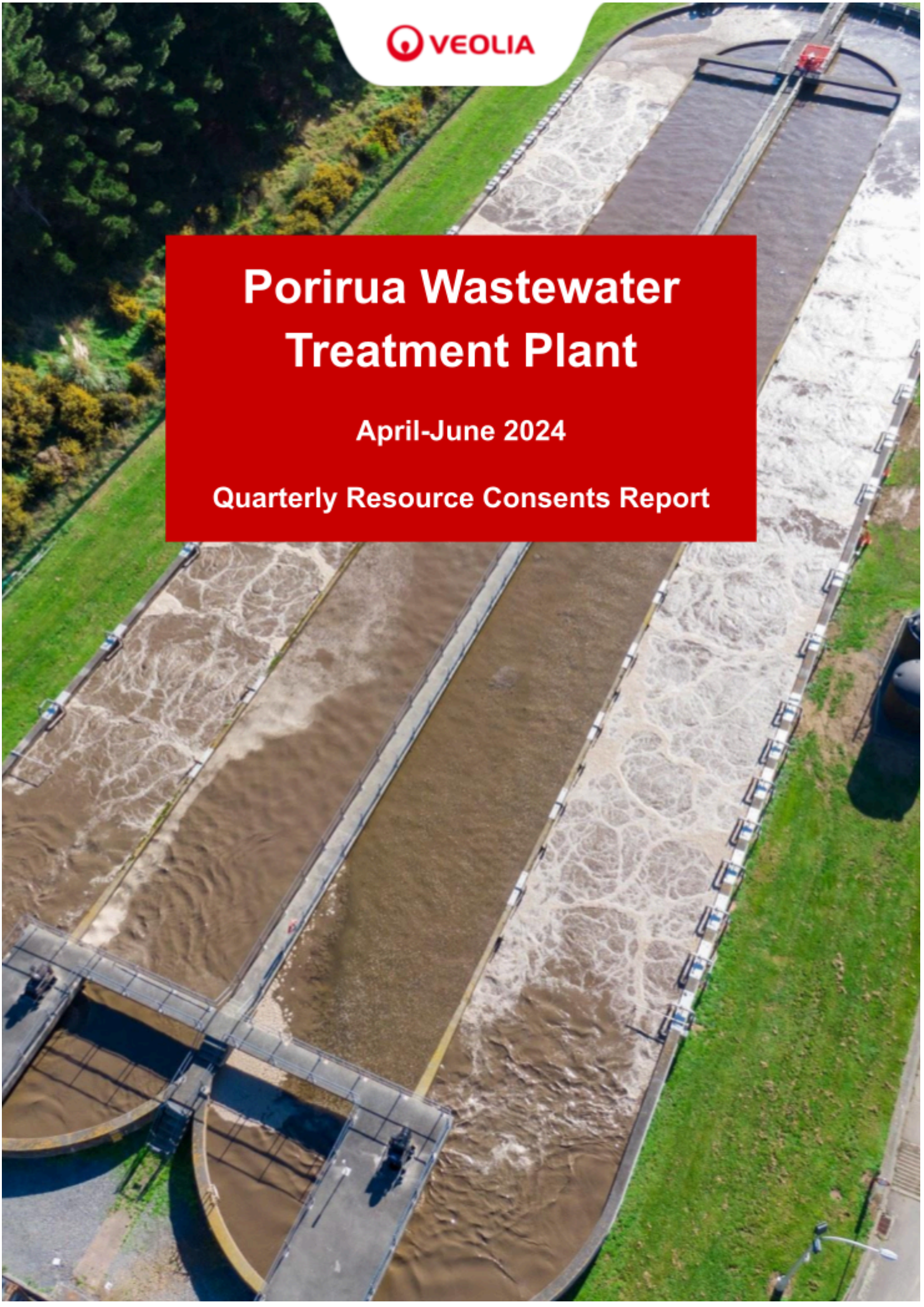

Porirua Wastewater Treatment Plant

April-June 2024

Quarterly Resource Consents Report

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CONTROL SHEET

Document Title: Porirua Wastewater Treatment Plant April-June 2024 Quarterly Resource Consents Report

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0	Draft	31/07/2024	Original version for review.
1	Final	01/08/2024	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 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	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	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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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 accepted exception by all stakeholders.
The effluent flow meter controller was offline due to repair until 12 April. For the final flow calculation in April, inlet flow readings from both UV channels (Duron and TAK UV channels) were totalised. Starting in May, readings from the effluent flow meter have been used.

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

Day	April 2024		May 2024		June 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	19369	18378	50961	49743	19378	21008
2	20573	19449	31179	34393	19374	21693
3	19848	18867	20147	23848	21934	23433
4	22902	22069	20154	23722	19707	21849
5	25336	24257	23846	25227	20474	22102
6	21205	20144	20322	22525	19536	21502
7	22392	20185	20196	22283	18611	20687
8	19851	18061	21526	23626	20204	22321
9	20064	18555	21594	23188	28407	29491
10	20419	18678	19069	22008	24255	26469
11	19589	18536	21833	23544	21551	23513
12	54441	53141	22263	23892	20333	22478
13	49855	47504	20906	22505	21528	23113
14	29176	27224	20576	21953	36437	38260
15	23384	21410	21053	23061	34284	35090
16	20951	25073	19972	22626	32797	34737
17	21012	19177	19601	21435	24437	26419
18	19596	18731	20580	22653	21932	25255
19	19740	18025	21875	23878	22094	23774
20	18353	18271	20626	22986	20574	22743
21	19334	18154	28739	30868	20032	22355
22	20157	18795	25879	27950	20654	22778
23	18838	17782	21121	23678	23930	25991
24	18150	18949	20928	22785	20471	23228
25	18711	19548	21236	23639	29193	30450
26	19173	19752	23564	25213	23152	24221
27	19292	21394	20918	22560	20252	22367
28	20420	22422	20240	22707	21384	23358
29	19885	20281	19904	21884	20310	22072
30	18752	19279	19499	21599	16958	18021
31	-	-	15089	16076	-	-

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	April 2024			May 2024			June 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	134	10	49	10198	3500	68	10	10	64
2	283	20	57	55	10	66	10	10	62
3	755	10	47	51	10	69	10	10	62
4	17	10	39	9487	4000	68	10	10	60
5	14	10	47	22	20	67	35	40	60
6	17	10	46	126	30	63	10	10	61
7	28	10	59	62	10	67	20	10	62
8	17	10	47	71	10	67	173	10	62
9	118	10	48	42	10	67	346	40	60
10	57	10	35	22	10	69	22	10	62
11	10	10	56	10	10	69	3950	160	62
12	10	10	58	10	10	68	40	60	61
13	10	10	65	63	10	66	277	180	62
14	10	10	65	22	10	66	110	10	61
15	24	10	61	10	10		254	180	65
16	10	10	60	10	10	67	663	1000	65
17	10	10	58	10	10	66	45	10	63
18	10	10	56	36	10	67	10	20	62
19	10	10	58	42	10	68	182	120	62
20	10	10	57	24	20	64	110	40	62
21	10	20	61	14	10	66	548	50	60
22	10	10	62	782	20	69	17	10	62
23	10	10	57	10	10	69	10	10	60
24	89	10	60	35	10	68	182	250	60
25	138	10	58	10	10	67	164	200	59
26	7937	4000	62	10	10	67	59	90	60
27	47	10	60	26	10	66	130	200	60
28	48	10	63	36	10	65	265	10	65
29	141	10	62	45	10	66	265	50	63
30	10	10	63	10	10	63	20	70	57
31	-	-	-	45	10	64	-	-	-
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	April 2024	May 2024	June 2024
	Total Ammonia Nitrogen	Total Ammonia Nitrogen	Total Ammonia Nitrogen
	mg/L	mg/L	mg/L
1		0.92	
2			
3	0.37		
4			
5			23.3
6			
7			
8		0.95	
9			
10	0.65		
11			
12			24.9
13			
14			
15		3.97	
16			
17	0.28		
18			
19			24.2
20			
21			
22		7.73	
23			
24	0.51		
25			
26			24
27			
28			
29		17.6	
30			
31			
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.

April 2024				May 2024				June 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
09/04/2024	1.10E+06	2/04/2024	10	21/05/2024	2.20E+07	7/05/2024	20	10/06/2024	2.50E+06	4/06/2024	59
		9/04/2024	10			14/05/2024	10			11/06/2024	300
		16/04/2024	10			21/05/2024	10			18/06/2024	10
		23/04/2024	10			28/05/2024	10			25/06/2024	49
		30/04/2024	49								

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	April 2024			June 2024			July 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	5	11	6	6.0	14.1	11	8.2	20.1
2	47	5	12	4	6.0	14.1	10	8.2	20.1
3	5	5	12	3	6.0	14.1	23	8.4	21.2
4	23	5	12	8	6.1	14.1	17	8.5	21.2
5	14	5	12	8	6.1	14.1	21	8.7	21.2
6	15	6	14	5	6.1	14.1	16	8.9	21.2
7	7	6	14	4	6.1	14.1	5	8.8	21.2
8	6	6	14	3	6.2	14.1	29	9.0	23.0
9	6	6	14	3	6.2	14.1	37	9.1	23.1
10	3	6	14	7	6.3	14.1	21	9.2	23.1
11	34	6	14	9	6.4	14.1	27	9.3	24.1
12	4	6	14	10	6.4	14.1	10	9.3	24.1
13	3	6	14	8	6.4	14.1	8	9.3	24.1
14	29	6	14	7	6.4	14.1	9	9.3	24.1
15	24	6	14	10	6.5	14.1	10	9.2	23.1
16	20	6	15	10	6.4	14.1	10	9.1	23.1
17	5	6	15	15	6.6	15.0	6	9.1	23.1
18	5	6	15	11	6.7	15.0	11	9.0	23.1
19	3	6	15	20	6.8	15.5	9	9.1	23.1
20	5	6	14	16	6.8	16.4	9	9.1	23.1
21	5	6	14	19	6.9	19.1	9	9.2	23.1
22	4	6	14	18	7.0	19.1	12	9.2	23.1
23	5	6	14	19	7.1	19.1	14	9.3	23.1
24	3	6	14	16	7.3	19.1	12	9.4	23.1
25	9	6	14	14	7.4	19.1	12	9.4	23.1
26	4	6	14	11	7.4	19.1	9	9.5	23.1
27	4	6	14	25	7.5	20.0	8	9.5	23.1
28	5	6	14	19	7.7	20.0	8	9.5	23.1
29	6	6	14	27	7.9	20.1	9	9.5	23.1
30	5	6	14	15	8.0	20.1	12	9.6	23.1
31	-	-	-	19	8.1	20.1	-	-	-
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	April 2024			June 2024			July 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	8	12	6	9	62	6	9.6	63
2	137	8	13	6	9	62	6	9.2	62
3	73	8	22	6	9	62	7	9.2	62
4	74	8	25	6	9	62	6	9.2	62
5	27	9	27	6	9	62	6	9.2	62
6	69	9	31	6	9	62	6	9.2	62
7	7	9	31	6	9	62	6	9.0	62.
8	6	9	31	6	9	62	6	9.0	62
9	6	9	31	6	9	62	6	9.0	62
10	6	9	31	6	9	62	6	9.0	62
11	71	9	62	6	9	62	6	8.7	60
12	6	9	62	6	9	62	5	8.6	60
13	6	9	62	6	9	62	6	8.6	60
14	38	9	62	6	9	62	5	8.6	60
15	60	10	62	6	9	62	5	8.3	40
16	29	10	62	7	9	62	6	8.1	30
17	6	10	62	6	9	62	6	7.9	27
18	6	10	62	6	9	62	6	7.8	27
19	6	10	62	6	9	62	6	7.8	27
20	6	10	62	6	9	62	6	7.8	27
21	6	10	62	6	9	62	5	7.8	27
22	5	10	62	86	10	63	6	7.8	27
23	6	10	62	6	10	63	6	7.8	27
24	6	10	62	6	10	63	6	7.8	27
25	6	10	62	6	10	63	6	7.8	27
26	6	10	62	6	10	63	6	7.8	27
27	6	9	62	6	10	63	6	7.7	27
28	6	9	62	6	10	63	6	7.7	27
29	6	9	62	6	10	63	6	7.7	27
30	6	9	62	6	10	63	6	7.7	27
31	-	-		6	10	63	-	-	-
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	April 2024	May 2024	June 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	0.001
Total Copper	**g/m^3**	**0.013**	0.002	0.002	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**	0.019	0.019	0.016
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**	**-**	1.54	3.07	3.8
Nitrite Nitrogen	**g/m^3**	**-**	0.23	0.31	0.49
Dissolved Reactive Phosphorus	**g/m^3**	**-**	1.82	2.35	1.45
Total Nitrogen	**g/m^3**	**-**	1.65	13.39	26.6
Total Phosphorus	**g/m^3**	**-**	1.85	2.14	1.89

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.

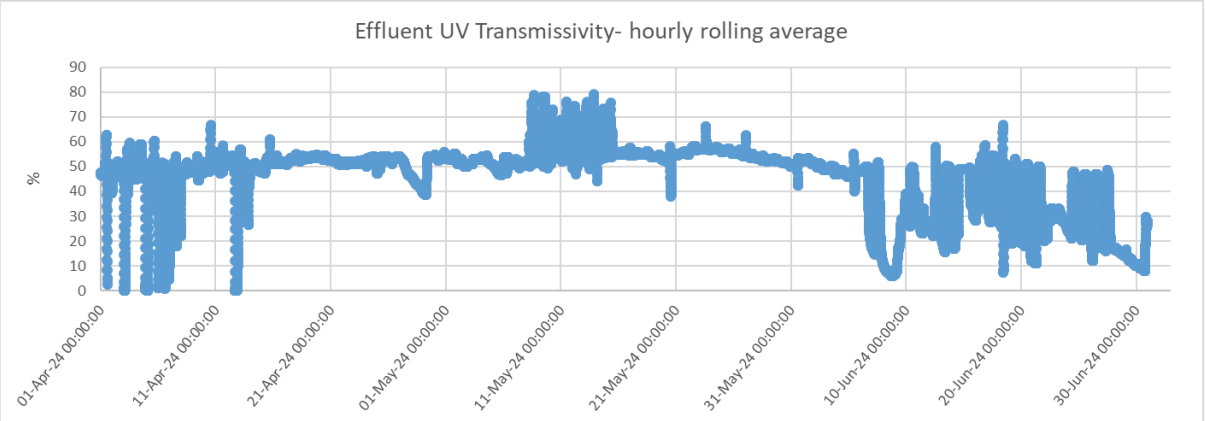

Figure 1: UVT values during April-June 2024 - online measurement

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.

The UVT value decreased below the 45% limit on a number of occasions. A full report covering the period of (May-June) is being prepared at the time of writing this report. Outcomes of the investigation indicate three main contributors. The main reason for the UVT values being below the limit is intermittent operation of the Duron UV system. Due to a mechanical failure of Duron's effluent penstock, the more reliable TAK UV system has been in operation during the hours when the plant is not manned. During this time, there was no flow in the Duron channel, and water was still resulting in unrepresentative UVT readings.

A minor number of UVT decreases are related to elevated suspended solids. UVT decreases related to the solids carry-over events were reported following each event. Dates for reported events were as follows:

Date	Investigation report submitted	Investigation Outcomes
12/04/2024	30/04/2024	High inlet flows combined with high biomass volume accumulation in the treatment process resulted in elevated concentrations of suspended solids and low UVT values.
13/04/2024	30/04/2024	
Other April 2024 events	10/05/2024	

Table 10: UVT values decreases below 45%

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	--	--	--	--
05/04/2024	10	8.3	38	10	16.8	NW	Light	Low	Ebb
27/05/2024	10	8.18	38	11.79	12.9	N	Light	Mid	Flood
24/06/2024	10	8.23	39	11.73	12	None	None	Low	Flow

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
05/04/2024	0.05	0.1	0.1	0.015	0.18	0.05
27/05/2024	0.31	0.1	0.1	0.05	0.35	0.05
24/06/2024	0.12	0.01	0.01	0.016	0.274	0.07

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

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	--	--	--	--
05/04/2024	320	8.1	38	10	18	N	Light	Low	Ebb
27/05/2024	10	8.35	38	11.46	13.8	N	Light	Mid	Flood
24/06/2024	10	8.31	38	10.18	13.7	None	None	Low	Flow

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
05/04/2024	0.05	0.1	0.1	0.068	0.310	0.11
27/05/2024	0.28	0.1	0.1	0.018	0.335	0.01
24/06/2024	0.31	0.01	0.01	0.032	0.642	0.029

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

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	--	--	--	--
05/04/2024	30	8.2	37	10	17.3	NW	Light	Low	Ebb
27/05/2024	30	8.22	38	11.82	13.2	N	Light	Mid	Flood
24/06/2024		8.25		11.52	12.6	None	None	Mid	Flow

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

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	--	--	--	--
05/04/2024	10	7.9	38	10	17.9	NW	Light	Low	Ebb
27/05/2024	10	8.14	38	12	13.8	N	Moderate	High	Flood
24/06/2024	10	8.18	38	13.23	12.2	None	None	Mid	Flow

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
05/04/2024	0.01	0.1	0.1	0.005	0.146	0.05
27/05/2024	0.27	0.1	0.1	0.013	0.237	0.231
24/06/2024	0.19	0.1	0.01	0.013	0.285	0.066

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 on 12 April 2024. Full investigation of the event was conducted and a report was submitted on 30/04/2024.

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 April-June 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 April-June 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 did not exceed 2,000 cfu per 100 millilitres on two or more consecutive days during the April- June 2024 reporting period.

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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 odour complaints are published on the Wellington Water website. https://www.wellingtonwater.co.nz/resources/topic/wastewater/wastewater-treatment-plants/porirua-wastewater-treatment-plant/.

During the reporting period of April-June 2024, no odour complaints were received.

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/.

During the reporting period of April-June 2024, no odour complaints were received.

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