

# Moa Point Wastewater Treatment Plant

October - December 2024

**Quarterly Resource Consents Report** 

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# DOCUMENT CONTROL REGISTER

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0.1	Draft	30 January 2025	Original version for review.
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1.0	Final	3 February 2025	Final and Publish

# **EXECUTIVE SUMMARY**

The following report was prepared by Veolia on behalf of the Wellington City Council (WCC) and Wellington Water for the Greater Wellington Regional Council (GWRC). This report includes results and observations that satisfy the reporting requirements of the following Moa Point Inlet Pump Station (IPS) and Wastewater Treatment Plant (WWTP) resource consents:

### WGN080003 [31505]

Effluent discharge from the Moa Point WWTP is governed by the resource consent under the Greater Wellington Regional Council consent file number WGN8003 [31505]. In general, the consent allows the continuous discharge of up to 260,000 cubic metres per day of secondary treated and disinfected wastewater from Moa Point Wastewater Treatment Plant into coastal marine area via an existing submarine outfall.

Resource Consent Condition	Compliant/Non-Compliant/Not Applicable
Condition 6	Compliant
Condition 9a	Compliant
Condition 9b	Compliant
Condition 10a	Compliant
Condition 10b	Non-Compliant
Condition 10c	Non-Compliant
Condition 11	Compliant
Condition 12	Compliant
Condition 13	Compliant
Condition 14	Compliant
Condition 18	Compliant
Condition 19	Compliant

The following is a brief overview of the compliance with the consent conditions:

Table 1 WGN080003 [31505] Resource Consent Condition Compliance

# WGN080003 [35047]

Discharges from the Moa Point WWTP are governed by consent file number WGN8003 [35047]. In general, the consent allows the discharge up to 4500 litres per second of mixed disinfected secondary treated and milli-screened wastewater to the coastal marine area via an existing submarine outfall during and/or immediately after heavy rainfall, when the quantity of wastewater arriving at the Moa Point Wastewater Treatment Plant exceeds 3000 litres per second. The following is a brief overview of the compliance with the consent conditions:

<b>Resource Consent Condition</b>	Compliant/Non-Compliant/Not Applicable
Condition 8	Non-Compliant <sup>1</sup>
Condition 10	Compliant
Condition 16	Compliant
Condition 18	Compliant

Tables 2 WGN080003 [35047] Resource Consent Condition Compliance

<sup>&</sup>lt;sup>1</sup> There were two discharges in the period and one of these was unconsented because high rainfall within the catchment leading to higher inflows than the existing capacity of the Inlet Pumping Station (IPS). Plant capacity for this event was affected (reduced) by the drain-down of clarifier 3. Only one wet-well was operating.

# WGN080003 [26182]

The outfall pipeline from the Moa Point WWTP is governed by the resource consent under the Greater Wellington Regional Council consent file number WGN8003 [26182]. In general, the WCC is allowed to occupy the foreshore and seabed of the coastal marine area with an existing submarine outfall pipeline.

Resource Consent Condition	Compliant/Non-Compliant/Not Applicable					
Condition 3	Compliant					
Table 3: WGN080003 [26182] Resource Consent Condition Compliance						

# WGN080003 [26183]

Emissions from the Moa Point WWTP are governed by the resource consent under the Greater Wellington Regional Council consent file number WGN8003 [26183]. In general, the WCC is allowed to continuously discharge contaminants (including odour) to air from the Moa Point Wastewater Treatment Plant ventilation system.

The following is a brief overview of the compliance with the consent conditions:

<b>Resource Consent Condition</b>	Compliant/Non-Compliant/Not Applicable
Condition 7	Compliant
Condition 8	Compliant
Condition 9	Non compliant
Condition 10	Complaint
Condition 13	Compliant
Table 4: W/CN090002 [26192] Basey	urea Consent Condition Compliance

Table 4: WGN080003 [26183] Resource Consent Condition Compliance

# WGN960094 [1471]

Emissions from the Moa Point Inlet Pump Station (IPS) are governed by the resource consent under the Greater Wellington Regional Council consent file number WGN960094 [1471]. In general, the WCC is allowed to continuously discharge contaminants (including odour) to air from Moa Point IPS ventilation system.

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
Condition 11	Compliant
Condition 13	Compliant

Table 5: WGN960094 [1471] Resource Consent Condition Compliance

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### Condition 6 - Monitoring flow rates and volume

The permit holder shall continuously monitor and record the flow rate and volume of treated wastewater entering the submarine outfall pipeline, to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. A summary of the records listing the daily discharge volumes and average and maximum flow rates shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council at quarterly intervals, in accordance with condition 19 of this permit.

The following tables list the daily total effluent volume, average daily effluent flow rate, and maximum daily effluent flow rate from the Moa Point WWTP.

	October 2024			N	ovember 202	4	December 2024		
Day	Daily Total Volume	Average Daily Flow Rate	Maximum Daily Flow Rate	Daily Total Volume	Average Daily Flow Rate	Maximum Daily Flow Rate	Daily Total Volume	Average Daily Flow Rate	Maximum Daily Flow Rate
	L/s	m³/hour	m³	L/s	m³/hour	m³	L/s	m³/hour	m <sup>3</sup>
1	650	4,105	56,127	714	4,183	61,724	570	3530	49209
2	666	4,183	57,560	647	3,810	55,941	608	3441	52549
3	730	4,591	63,096	620	3,564	53,601	614	3552	53041
4	659	3,870	56,901	652	3,585	56,368	626	3734	54088
5	649	3,944	56,052	732	3,903	63,271	648	4025	56014
6	720	4,802	62,171	667	3,740	57,656	629	3812	54342
7	697	3,968	60,184	638	3,583	55,158	642	4214	55485
8	696	4,074	60,177	611	3,824	52,818	713	4573	61585
9	568	3,617	49,039	658	3,701	56,890	684	3807	59084
10	661	3,928	57,107	745	3,520	64,345	681	3455	58821
11	645	3,979	55,741	751	2,704	64,900	661	3603	57119
12	630	4,146	54,447	751	2,704	62,196	664	3386	57404
13	1388	10,212	119,930	623	3,513	49,748	687	3608	59345
14	1677	10,501	144,934	1024	5,704	88,472	659	3691	56954
15	865	5,064	74,778	1011	5,429	87,341	627	3697	54205
16	730	4,134	63,045	686	4,151	59,265	800	4823	69139
17	710	3,727	60,056	661	3,645	57,082	651	3640	56239
18	689	3,786	59,548	733	3,877	63,295	654	4422	56467
19	666	3,680	57,559	715	4,207	61,814	1051	5178	89572
20	664	3,720	57,364	721	3,926	62,286	783	5730	67655
21	675	3,706	58,283	709	3,835	61,269	813	4867	70209
22	670	4,023	57,846	662	3,912	57,158	659	4636	56947
23	663	3,580	57,296	620	3,838	53,599	625	4451	54014
24	670	3,543	57,890	622	3,492	53,747	558	3418	48252
25	703	4,163	60,772	636	3,715	54,987	552	3713	47725
26	935	4,946	80,755	636	3,246	54,961	640	3713	55282
27	670	3,574	57,860	629	3,365	54,340	573	3637	49492
28	716	3,685	61,847	630	3,395	54,410	543	3433	46913
29	751	3,784	64,877	593	3,423	51,233	525	2623	45402
30	873	5,523	75,459	702	3,655	38,094	602	3610	51972
31	902	4,214	48,418				820	4271	44521
Limit	260,000	N	/A	260,000	N	/A	260,000	N	I/A

Table 6: Effluent Flow Rate

# Condition 9 a) - Effluent Quality

The permit holder shall obtain daily representative 24-hour flow-proportional composite samples of the treated wastewater discharged from the treatment plant to the outfall. These samples shall be analysed for total suspended solids and 5-day carbonaceous biochemical oxygen demand (cBOD5).

The effluent cBOD5 and suspended solids results from daily representative 24-hour flow-proportional composite samples can be found under resource consent WGN080003 [31505] Condition 10 a) and b).

# Condition 9 b) - Analysis of Effluent

The permit holder shall between the hours of 9:00 am and 5:00 pm each day, obtain a representative grab sample of the treated wastewater discharged from the treatment plant to the outfall. This sample shall be analysed for faecal coliforms.

The effluent faecal coliforms results from daily representative grab samples can be found under resource consent WGN080003 [31505] Condition 10 c).

# Condition 10 - Effluent Quality Criteria

The wastewater discharged from the Moa Point Wastewater Treatment Plant to the coastal waters shall comply with the following effluent quality criteria:

- cBOD5 The geometric mean of 90 consecutive daily sampling results shall not exceed 20 g/m<sup>3</sup> and no more than 10% of 90 consecutive sample results shall exceed 45 g/m<sup>3</sup>.
- Suspended solids The geometric mean of 90 consecutive daily sampling results shall not exceed 30g/m<sup>3</sup> and no more than 10% of 90 consecutive daily values shall exceed 68g/m<sup>3</sup>.
- c. Faecal Coliforms

The geometric mean of 90 consecutive daily sampling results shall not exceed 200 colony forming units per 100mL and no more than 10% of 90 consecutive sample results shall exceed 950 colony forming units per 100mL. Compliance with the effluent quality criteria shall be determined from the results of wastewater monitoring undertaken in accordance with conditions (9)(a) and (9)(b) of this permit, with a running geometric mean and ninetieth percentile calculated following each sampling event using the preceding 90 consecutive sample results.

### a) 5-Day Carbonaceous Biochemical Oxygen Demand

The following is a summary of the daily results, geometric mean, and ninetieth percentile for carbonaceous biochemical oxygen demand.

		October 2024	4	N	November 2024 December 2024			December 2024		
Day	Daily Results	Geometric Mean	90th Percentile	Daily Results	Geometric Mean	90th Percentile	Daily Results	Geometric Mean	90th Percentile	
	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	
1	6	12	43	10	11	36	11	10	21	
2	17	12	43	9	11	36	17	10	20	
3	7	12	43	10	12	36	21	10	21	
4	6	12	43	9	12	36	17	10	21	
5	7	12	42	10	12	36	21	11	21	
6	14	12	42	8	12	36	15	11	21	
7	8	12	42	8	12	36	14	11	21	
8	10	12	42	4	12	36	15	10	21	
9	9	12	42	4	12	36	11	11	21	
10	9	12	42	7	12	36	14	11	21	
11	11	12	42	8	12	36	13	11	21	
12	8	12	42	17	12	36	10	10	20	
13	81	12	48	8	12	36	11	10	18	
14	21	12	48	9	12	36	21	10	18	
15	7	12	48	9	12	36	19	10	17	
16	7	12	48	13	11	33	20	10	19	
17	10	12	48	5	11	33	12	10	19	
18	8	12	42	6	11	33	8	10	19	
19	8	12	42	63	11	36	8	10	19	
20	9	12	42	15	11	36	11	10	19	
21	17	12	42	12	11	36	9	10	19	
22	23	12	42	7	11	36	6	10	19	
23	13	12	42	6	11	36	6	10	19	
24	15	12	42	8	11	33	6	10	19	
25	15	12	42	6	11	28	6	10	19	
26	13	12	42	6	11	28	6	10	17	
27	9	12	42	6	11	25	6	10	17	
28	8	12	42	7	11	25	6	10	17	
29	11	11	36	10	10	22	3	10	17	
30	13	11	36	9	10	21	6	10	17	
31	9	11	36				6	10	17	
Limits	N/A	20	45	N/A	20	45	N/A	20	45	

 Table 7: 5-Day Carbonaceous Biochemical Oxygen Demand Results, Geometric Mean, and 90th Percentile

 Please note that analytical results highlighted in amber are above the 20g/m<sup>3</sup> geometric mean limit.

 Analytical results highlighted in red are above the 45g/m<sup>3</sup> percent compliance limit. This does not affect the compliance with the resource consent.

### b) Suspended Solids

The following is a summary of the daily results, geometric mean, and ninetieth percentile for the suspended solids.

		October 2024			November 2024			December 2024	
Day	Daily Results	Geometric Mean	90th Percentile	Daily Results	Geometric Mean	90th Percentile	Daily Results	Geometric Mean	90th Percentile
	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³
1	18	29	99	29	31	95	38	32	84
2	48	29	99	23	31	95	62	31	76
3	10	29	99	30	32	95	61	31	76
4	29	29	99	25	32	95	69	32	76
5	22	29	99	28	33	95	58	32	76
6	45	29	98	22	33	95	72	33	76
7	23	29	98	21	33	95	42	33	76
8	26	29	98	13	34	95	61	33	72
9	22	30	98	14	34	95	43	33	72
10	24	30	98	21	34	95	46	33	72
11	33	30	98	29	34	95	55	34	72
12	25	30	98	51	34	95	48	34	69
13	268	30	103	23	34	95	60	34	69
14	44	30	103	27	34	95	101	34	69
15	19	30	104	29	34	95	82	34	69
16	12	30	103	44	33	94	78	34	72
17	23	29	103	20	32	94	40	34	72
18	22	29	98	18	32	94	42	34	72
19	27	29	98	204	33	95	55	35	72
20	35	29	98	65	34	95	39	35	72
21	61	29	98	43	34	95	44	35	72
22	143	30	103	26	35	95	20	35	72
23	83	30	103	20	34	94	32	35	72
24	88	31	103	31	33	92	33	35	72
25	75	32	103	26	33	92	33	35	72
26	36	32	103	20	33	92	25	35	72
27	27	32	103	19	32	92	26	35	72
28	32	31	98	20	32	92	28	35	72
29	35	31	95	28	32	88	10	35	72
30	33	30	95	40	31	84	10	34	72
31	25	31	95	223	30	95	16	34	72
Limits	N/A	30	68	N/A	30	68	N/A	30	68

Table 8: Suspended Solids Results, Geometric Mean, and 90th Percentile

Please note that analytical results highlighted in amber are above the 30g/m<sup>3</sup> geometric mean limit. Analytical results highlighted in red are above the 68g/m<sup>3</sup> percent compliance limit. This does not affect the compliance with the resource consent.

# c) Faecal Coliforms

The following is a summary of the daily results, geometric mean, and ninetieth percentile for faecal coliforms.

	October 2024			N	ovember 202	24	December 2024		
Day	Daily Results	Geometric Mean	90th Percentile	Daily Results	Geometric Mean	90th Percentile	Daily Results	Geometric Mean	90th Percentile
	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL
1	35	948	32755	346	2581	56673	1697	2201	57550
2	23238	984	32755	1849	2611	56673	693	2146	57550
3	49193	1025	37107	10000	2664	56673	346	2179	57550
4	60000	1041	43780	693	2783	56673	6387	2192	57550
5	13000	1054	43780	26	2619	56673	169	2173	57550
6	35944	1077	43780	66	2549	56673	3200	2181	57550
7	24819	1130	43780	110	2403	56673	1285	2303	57550
8	1073	1107	43780	20	2299	56673	190	2184	57550
9	10817	1198	43780	488	2208	56673	877	2296	57550
10	57966	1210	49355	28	2030	56673	1000	2195	57550
11	60000	1302	51171	40	1877	56673	279	2067	56777
12	7937	1386	51171	11533	1843	55982	155	2032	56777
13	51961	1464	53519	11619	1871	55982	800	1996	56777
14	60000	1564	56106	3175	1943	55982	648	1924	56777
15	63	1504	56106	5477	2028	55982	1237	1852	56777
16	2323	1519	56106	53	1904	55982	248	1913	56777
17	10	1442	56106	5441	1914	55982	134	1858	56629
18	10583	1524	56106	30397	2073	55982	17	1869	56629
19	761	1602	56106	2683	2059	55982	14	1723	56629
20	30983	1757	56106	60000	2241	56673	35	1628	56629
21	60000	1829	56770	60000	2276	57550	128	1521	52562
22	1497	1936	56770	4243	2251	57550	20	1533	52562
23	24980	2053	56770	358	2140	57550	209	1440	49470
24	14422	2204	56770	938	2140	57550	600	1368	37269
25	4517	2274	56770	2569	2012	57550	193	1314	37269
26	566	2245	56770	5550	1991	57550	14	1211	37269
27	268	2192	56673	3989	2129	57550	14	1194	37269
28	205	2218	56673	28	2154	57550	17	1113	37269
29	214	2232	56673	1327	2215	57550	14	1028	37269
30	800	2345	56673	8367	2201	57550	24	1024	37269
31	4472	2511	56673				10	939	37269
Limits	N/A	200	950	N/A	200	950	N/A	200	950

Table 9: Faecal Coliform Results, Geometric Mean, and 90th Percentile

Please note that analytical results highlighted in amber are above the 200cfu/100mL geometric mean limit. Analytical results highlighted in red are above the 950cfu/100mL percent compliance limit. This does not affect the compliance with the resource consent.

# Condition 11 - Analysis for metals and other

The permit holder shall at least once every three months obtain a treatment plant to the outfall. This sample shall be analysed for an	sample of the treated wastewater discharged from the nd not exceed the following:
Total arsenic	0.26 g/m <sup>3</sup>
Total cadmium	0.08 g/m <sup>3</sup>
Total chromium	0.48 g/m <sup>3</sup>
Total copper	0.14 g/m <sup>3</sup>
Total lead	0.48 g/m <sup>3</sup>
Total mercury	0.01 g/m <sup>3</sup>
Total nickel	0.77 g/m <sup>3</sup>
Total zinc	1.65 g/m <sup>3</sup>
Phenol	0.80 g/m <sup>3</sup>
Cyanide as CN	0.10 g/m <sup>3</sup>
This sample shall also be analysed for:	
pH Ammoniacal Nitrogen Oil and Grease	

Below is a summary of the quarterly metals and other specified compounds analytical results. The results can be found in Appendix i: Heavy Metals Analysis.

Compound	Units	Limit	18/10/2024
Total Arsenic	g/m³	0.26	0.002
Total Cadmium	g/m³	0.08	0.001
Total Chromium	g/m³	0.48	0.001
Total Copper	g/m³	0.14	0.005
Total Lead	g/m³	0.48	0.001
Total Mercury	g/m³	0.01	0.001
Total Nickel	g/m³	0.77	0.001
Total Zinc	g/m³	1.65	0.022
Phenol	g/m³	0.80	0.01
Cyanide as CN	g/m³	0.10	0.005
рН			8.0
Ammoniacal Nitrogen	g/m³		2.13
Oil and Grease	g/m³		4.0

Table 10: Analytical Results for Quarterly Metals and other Specified Compounds

# Condition 12 - Monitoring Results' Reporting

The results of monitoring undertaken in accordance with conditions 9a, 9b and 11 of this permit shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council on a quarterly basis, in accordance with condition 19 of this permit.

All monitoring performed at the Moa Point WWTP has been provided in the previous sections of this report under the designated resource consent conditions. A summary of the monitoring parameters, the resource consent condition the data is listed under, the monitoring frequency, the limits for each parameter, and compliance with the resource consent can be found under WGN080003 [31505] Condition 19.

# Condition 13 - Notification of Non Compliant Effluent

The permit holder shall notify the Manager, Environmental Regulation, Wellington Regional Council immediately in the event that a running geometric mean and/or ninetieth percentile effluent quality value or other value calculated following each wastewater quality sampling event exceeds the criteria stipulated in conditions 10 and 11 of this permit for more than three consecutive sampling events. Such a notification shall include the likely reason for exceedance, and measures to be undertaken by the permit holder to remedy the situation.

The permit holder shall also immediately notify the Medical Officer of Health of any such event.

Moa Point WWTP was compliant with both the BOD5 90-day percentile and 90-day geometric mean for the reporting period. The Total Suspended Solids 90-day geomean became non compliant on 24 October and remained so for the duration of this reporting period. The Total Suspended Solids 90-day percentile and Faecal Coliforms were non-compliant throughout the reporting period.

Greater Wellington requested an explanation for these non-compliances on 20 December 2024. These matters were under investigation at the time of preparing this report, with a response to be provided in February 2025.

## Condition 14 - Noticeable Effects Beyond the Discharge Point

The discharge shall not result in any of the following effects beyond a 100-metre radius of the discharge point (described in condition 3 of this permit):

- a. The production of any conspicuous oil or grease films, scums or foams or floatable or suspended material;
- b. Any conspicuous change in colour or visual clarity;
- c. Any emission of objectionable odour; or
- d. Any significant adverse effects on aquatic life.

Nothing to report.

# Condition 18 - Complaints

The permit holder shall keep a record of any complaints that are received. The record shall contain the following details, where practicable:

- a. Name and address of the complainant;
- b. Identification of the nature of the complaint;
- c. Date and time of the complaint and of the alleged event;
- d. Weather conditions at the time of the complaint; and
- e. Any measures taken to address the cause of the complaint.

The permit holder shall notify the Manager, Environmental Regulation, Wellington Regional Council of any complaints relating to the exercise of this permit within 24 hours of being received by the permit holder or the next working day.

There were no complaints received regarding this resource consent for the reporting period.

Condition 19 - Quarterly Reporting

A quarterly monitoring report for each three-month period ending 31 March, 30 June, 30 December and 31 December shall be provided to the Manager, Environmental Regulation, Wellington Regional Council within 30 days of the end of each three month period.

The quarterly report shall include, but not be limited to, the following:

- a. The results of all monitoring undertaken, as required by conditions 9a, 9b and 11 of this permit. These results shall be provided in an electronic format and a hard-copy format;
- b. An assessment of compliance with conditions 10, 11 and 14 of this permit; and
- c. Reasons for any non-compliance and subsequent actions undertaken to remedy any non-compliance.

All monitoring performed at the Moa Point WWTP has been provided in the previous sections of this report under the designated resource consent conditions. The following is a summary of the monitoring parameters, the resource consent condition the data is listed under, the monitoring frequency, the limits for each parameter, and compliance with the resource consent:

Monitoring Parameters	WGN080003 [31505] Condition	Monitoring Frequency	Limits	Compliance
Carbonaceous Biochemical	9a	Deile		Compliant
Oxygen Demand	10a	Daily	Geometric Mean < 20g/m <sup>3</sup> 90th Percentile < 45g/m <sup>3</sup>	Compliant
Suspended	9a			Compliant
Solids	10b	Daily	Geometric Mean < 30g/m <sup>3</sup> 90th Percentile < 68g/m <sup>3</sup>	Non-compliant
	9b			Compliant
Faecal Coliforms	10c	Daily	Geometric Mean < 200cfu/100mL 90th Percentile < 950cfu/100mL	Non-compliant
Total arsenic		Quarterly	0.26g/m <sup>3</sup>	Compliant
Total cadmium		Quarterly	0.08 g/m <sup>3</sup>	Compliant
Total chromium		Quarterly	0.48g/m <sup>3</sup>	Compliant
Total copper		Quarterly	0.14g/m <sup>3</sup>	Compliant
Total lead		Quarterly	0.48g/m <sup>3</sup>	Compliant
Total mercury		Quarterly	0.01g/m <sup>3</sup>	Compliant
Total nickel	11	Quarterly	0.77g/m <sup>3</sup>	Compliant
Total zinc		Quarterly	1.65g/m <sup>3</sup>	Compliant
Phenol		Quarterly	0.80g/m <sup>3</sup>	Compliant
Cyanide as CN		Quarterly	0.10g/m <sup>3</sup>	Compliant
рН		Quarterly		Compliant
Ammoniacal Nitrogen		Quarterly		Compliant
Oil and Grease		Quarterly		Compliant

Table 11: Analytical Results for Quarterly Metals and other Specified Compounds

# Condition 8 - Reporting Bypass Discharges

The permit holder shall monitor and record the flow rate, total volume and duration of any bypass discharge from the Moa Point Wastewater Treatment Plant to the long outfall, and calculate and record a dilution ratio (secondary treated: screened effluent) for each bypass event based on average rates of flow during that event. The results of this monitoring shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council, within 10 working days of the bypass discharge occurring.

Date	Duration	Average Inlet Flow	Peak Inlet Flow	Average Discharge Flow	Peak Discharge Flow	Total Volume of Discharge	Dilution Ratio	Consented	Cause	Monitoring Results
d/m/y	hr:min	L/s	L/s	L/s	L/s	m³		Y/N		
14/10	3:00	2827	3252	41	247	7.4	69:1	Y	High rain	Signs opened along the shoreline, notifications submitted, and a sampling campaign initiated.

Date	Duration	Average Inlet Flow	Peak Inlet Flow	Average Discharge Flow	Peak Discharge Flow	Total Volume of Discharge	Dilution Ratio	Consented	Cause	Monitoring Results
d/m/y	hr:min	L/s	L/s	L/s	L/s	m³		Y/N		
15/11	8:39	1626	1712	314	689	9777	NA	N	High rain	Signs opened along the shoreline, notifications submitted, and a sampling campaign initiated.
Comment         Discharge of untreated wastewater through the short outfall occurred. High rainfall within the catchment higher inflows than the existing capacity of the Inlet Pumping Station (IPS). Plant capacity was af because the pumping station was only operating with 1 pump.           Any discharge that occurs when the inlet flows are below 3000 L/s is unconsented and, therefore, this was unconsented									e catchment led to city was affected erefore, this event	

Tables 12 - 13: Discharges

# Condition 10 - Shoreline Monitoring Sites

During a bypass discharge (if during normal working hours) and on days one, two and three after the discharge, the permit holder shall take a grab sample of coastal water at each of the following locations, providing safe access is available:

- Dorrie Leslie Park at boat ramp;
- Hue Te Taka Peninsula;
- Tarakena Bay Beach at boat ramp;
- Tarakena Bay Beach, Western side;
- Hue te Taka Peninsula, Western side;
- Moa Point Road, opposite number 49;
- Lyall Bay Beach, Eastern side;
- Dorrie Leslie Park, South side of boat ramp;
- Dorrie Leslie Park, West of boat ramp;
- Peninsula at Queens Drive and The Esplanade;
- Houghton Bay, Western side;
- Marine Centre, Island Bay, Eastern side;
- Island Bay, Western side

Each sample shall be analysed for faecal coliforms and enterococci.

The permit holder shall identify and record the location of the sampling points (including map references) and supply this information to the Manager, Environmental Regulation, Wellington Regional Council, within three months of the commencement of this permit.

The details of the monitoring programme, as outlined in the Overflow Contingency Plan (required under condition 12 of this permit), shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Note: These sample locations have been selected to act as audit sites to determine if the results obtained from the modelling undertaken in regards to public health risks from bypass discharges are substantiated by sample results.

The resource consent WGN080003 [35047], Condition 10 was amended on 13 December 2017 to add another ten (10) shoreline monitoring sites. These additional shoreline monitoring sites are located near storm water discharges which may affect the monitoring results.

The following map displays the (13) sites for shoreline sampling:



Figure 1: Moa Point WWTP Shoreline Monitoring Sites

### **Shoreline Monitoring**

The following is a summary of the shoreline monitoring performed as part of resource consent WGN080003 [35047], Condition 10 for the October event.

Please note:

- The tests for enterococci and faecal in shoreline monitoring were analysed by the contract laboratory.
- Bathing beach guidelines were used to generate the colouring for the Enterococci samples.
- Fresh water guidelines were used to generate the colouring for the Faecal Coliform samples.

Pastarial Spasias	Amber Limit	Red Limit	
Bacterial Species	cfu/100mL	cfu/100mL	
Enterococci	140	280	
Faecal Coliforms	260	550	

Table 14: Shoreline Monitoring Guidelines

**Dorrie Leslie Park** 

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL			-	-
14/10/2024	130	420	S	Strong	High	Flood
15/10/2024	30	40	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

Table 15: Shoreline Monitoring

Dorrie Leslie Park - West End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions				
dd/mm/yyyy	cfu/100mL	cfu/100mL								
14/10/2024	30	110	S	Strong	High	Flood				
15/10/2024	10	20	S	Light	Low	Ebb				
16/10/2024	20	10	SW	Moderate	Low	Ebb				
	Table 16: Shoreline Monitoring									

Dorrie Leslie Park - South End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
14/10/2024	20	80	S	Strong	High	Flood
15/10/2024	10	40	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

Hue te Taka Peninsula

Table 17: Shoreline Monitoring
--------------------------------

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
14/10/2024	10	20	S	Strong	High	Flood
15/10/2024	50	10	S	Light	Low	Ebb
16/10/2024	10	40	SW	Moderate	Low	Ebb

Table 18:Shoreline Monitoring

#### Hue te Taka Peninsula - Western Side

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				-
14/10/2024	10	20	S	Strong	High	Flood
15/10/2024	10	40	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

#### Table 19: Shoreline Monitoring

Tarakena Bay

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				-
14/10/2024	160	60	S	Strong	High	Flood
15/10/2024	10	10	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

Table 20: Shoreline Monitoring

### Tarakena Bay - North End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
14/10/2024	30	10	S	Strong	High	Flood
15/10/2024	10	20	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

Table 21: Shoreline Monitoring

49 Moa Road

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
14/10/2024	10	10	S	Strong	High	Flood
15/10/2024	10	20	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

Table 22: Shoreline Monitoring

#### Eastern End of Lyall Bay

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL		-		
14/10/2024	10	10	S	Strong	High	Flood
15/10/2024	10	10	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

Table 23: Shoreline Monitoring

#### Waitaha Cove Southern End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL	-	-	-	-
14/10/2024	50	340	S	Strong	High	Flood
15/10/2024	10	40	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

**Table 24: Shoreline Monitoring** 

Houghton Bay - Western Side

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions							
dd/mm/yyyy	cfu/100mL	cfu/100mL											
14/10/2024	40	40	S	Strong	High	Flood							
15/10/2024	20	40	S	Light	Low	Ebb							
16/10/2024	10	10	SW	Moderate	Low	Ebb							
		Table 25: Sh	oreline Mor	nitoring		Table 25: Shoreline Monitoring							

Island Bay - Marine Centre

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				-
14/10/2024	260	150	S	Strong	High	Flood
15/10/2024	50	90	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

Table 26: Shoreline Monitoring

Island Bay - Western End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL			-	
14/10/2024	1100	600	S	Strong	High	Flood
15/10/2024	10	80	S	Light	Low	Ebb
16/10/2024	10	10	SW	Moderate	Low	Ebb

Table 27: Shoreline Monitoring

The following is a summary of the shoreline monitoring performed as part of resource consent WGN080003 [35047], Condition 10 for the November event.

Discharge of untreated wastewater through the short outfall occurred. High rainfall within the catchment led to higher inflows than the existing capacity of the Inlet Pumping Station (IPS). Plant capacity was affected because the pumping station was only operating with 1 pump. Any discharge that occurs when the inlet flows are below 3000 L/s is unconsented and, therefore, this event was unconsented.

Dorrie Leslie Park

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	330	80	N	Light	High	Ebb
16/11/2024	390	600	S	Moderate	High	Ebb
17/11/2024	10	50	S	Light	High	Flood

**Table 28: Shoreline Monitoring** 

#### Dorrie Leslie Park - West End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	60	40	N	Light	High	Ebb
16/11/2024	250	600	S	Moderate	High	Ebb
17/11/2024	10	20	S	Light	High	Flood

Table 29: Shoreline Monitoring

### Dorrie Leslie Park - South End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	500	500	N	Light	High	Ebb
16/11/2024	300	150	S	Moderate	High	Ebb
17/11/2024	700	60	S	Light	High	Flood

Table 30: Shoreline Monitoring

#### Hue te Taka Peninsula

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	400	300	N	Light	Mid	Ebb
16/11/2024	70	40	S	Moderate	High	Ebb
17/11/2024	1400	30	S	Light	High	Flood

Table 31:Shoreline Monitoring

#### Hue te Taka Peninsula - Western Side

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	190	10	N	Light	Mid	Ebb
16/11/2024	10	50	S	Moderate	High	Ebb
17/11/2024	10	10	S	Light	High	Flood

Table 32: Shoreline Monitoring

# Tarakena Bay

Date Enterococci		Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	80	30	N	Light	High	Ebb
16/11/2024	450	60	S	Moderate	High	Ebb
17/11/2024	10	30	S	Light	High	Flood

Table 33: Shoreline Monitoring

#### Tarakena Bay - North End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	800	600	N	Light	Mid	Ebb
16/11/2024	320	130	S	Moderate	High	Ebb
17/11/2024	50	10	S	Light	High	Flood

Table 34: Shoreline Monitoring

#### 49 Moa Road

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	10	10	N	Light	Mid	Ebb
16/11/2024	100	30	S	Moderate	High	Ebb
17/11/2024	10	10	S	Light	High	Flood

#### Eastern End of Lyall Bay

#### Table 35: Shoreline Monitoring

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	10	10	N	Light	High	Ebb
16/11/2024	100	40	S	Moderate	High	Ebb
17/11/2024	60	20	S	Light	High	Flood

#### Table 36: Shoreline Monitoring

#### Waitaha Cove Southern End

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	80	10	N	Light	High	Ebb
16/11/2024	450	200	S	Moderate	High	Ebb
17/11/2024	10	40	S	Light	High	Flood

#### Table 37: Shoreline Monitoring

### Houghton Bay - Western Side

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions		
dd/mm/yyyy	cfu/100mL	cfu/100mL						
15/11/2024	30	10	N	Light	High	Ebb		
16/11/2024	20	10	S	Moderate	High	Ebb		
17/11/2024 1400 60 S Light High Floor								
	Table 38: Shoreline Monitoring							

### Island Bay - Marine Centre

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	360	170	N	Light	High	Ebb
16/11/2024	500	400	S	Moderate	High	Ebb
17/11/2024	20	30	S	Light	High	Flood

#### Island Bay - Western End

Table 39: Shoreline Monitoring

Date	Enterococci	Faecal Coliforms	Wind Direction	Wind Strength	Tide	Sea Conditions
dd/mm/yyyy	cfu/100mL	cfu/100mL				
15/11/2024	600	120	N	Light	High	Ebb
16/11/2024	160	120	S	Moderate	High	Ebb
17/11/2024	40	10	S	Light	High	Ebb

Table 40: Shoreline Monitoring

# Condition 16 - Monitoring of bypass discharges

- 1. The permit holder shall provide suitable wastewater sampling locations for monitoring the quality of:
  - a. the bypass flows; and
  - b. secondary treated wastewater (i.e. both wastewater streams prior to mixing) during bypass discharges.
- The permit holder shall obtain grab samples of both wastewater streams within the first two hours of a bypass discharge occurring during normal working hours or as soon as practicable for those events occurring outside normal working hours. These samples shall be analysed for:
  - cBOD5
  - suspended solids
  - faecal coliform
  - pH
  - ammoniacal nitrogen
  - oil and grease
- On at least one bypass event each year these samples shall also be analysed for the following indicator contaminants:
   Total cadmium
  - Total chromium
  - Total copper
  - Total lead
  - Total nickel
  - Total zinc

The wastewater quality results, together with the results of wastewater flow monitoring shall be used to calculate, by mass balance, the quality of the wastewater discharge after both wastewater streams have mixed. The mass balance calculation for a contaminant (a) is:  $C_{\text{trial}}^*Q_{\text{tr}} + C_{\text{by(a)}}^*Q_{\text{try}} + C_{\text{by(a)}}^*Q_{\text{try}}$ 

Where:

C is contaminant concentration

Q is the flow rate (litres/sec)

tr subscript relates to parameter of the secondary treated wastewater stream

by subscript relates to parameter of the bypassed wastewater stream

mixed subscript relates to parameter of the mixed secondary treated and bypassed wastewater streams

The calculated mixed wastewater discharge quality results shall be reported to the Manager, Environmental Regulation, Wellington Regional Council, within 10 working days of the overflow event occurring.

- 1. Sampling locations are set out above see Condition 10 (above) for this Consent.
- 2. Samples were taken on the day of each discharge (and the following two days).
- 3. Sampling for contaminants was undertaken after the October bypass event (on 18 October). See WGN080003 [31505], Condition 11.

# Condition 18 - Complaints

The permit holder shall keep a record of any complaints that are received. The record shall contain the following details, where practicable:

- a. Name and address of the complainant;
- b. Identification of the nature of the complaint;
- c. Date and time of the complaint and of the alleged event;
- d. Weather conditions at the time of the complaint; and
- e. Any measures taken to address the cause of the complaint.

The permit holder shall notify the Manager, Environmental Regulation, Wellington Regional Council of any complaints relating to the exercise of this permit, within 24 hours of being received by the permit holder or the next working day. The permit holder shall forward to the Manager, Environmental Regulation, Wellington Regional Council a copy of any complaints recorded annually.

No complaints were received regarding this resource consent for the reporting period.

# WGN080003 [26182] - Occupying foreshore and seabed with outfall pipeline

# Condition 3 - Annual Outfall Inspection and Assessment

The permit holder shall undertake an annual physical assessment of the condition of the outfall pipeline. This assessment shall include, but not be limited to, the following:

a. An assessment of the structural condition of the pipeline;

- b. An inspection of the diffuser ports;
  c. An assessment of the erosion or scour around exposed sections of the pipeline; and
- Recommend any maintenance that is required. d.

The results of the assessment shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council no later than three months after the assessment has been undertaken.

The outfall pipeline inspection was conducted on 21st March 2024 and the subsequent report was submitted to GWRC for review. The next inspection is scheduled for the next reporting period (January - March 2025).

# Condition 7 - Monitoring

The permit holder shall monitor air quality in the vicinity of the plant to confirm the absence of faecal coliforms and salmonella originating from the plant. Sampling is to be carried out at least once every six months. The sampling method and locations are to be agreed with the Manager, Environmental Regulation, Wellington Regional Council within three months of the granting of this permit. Tests are to be carried out at a minimum of three sites downwind and three sites upwind of the plant, with at least one in the vicinity of Air New Zealand kitchens and one at a level of Kekerenga Street. The other sites are to be located outside of/and within 100 metres of the site boundary. The results shall be provided annually in the annual report required under condition 14 of this permit, or on request. Should the presence of faecal coliforms or salmonella be measured at any time, the Wellington Regional Council may direct that the applicant sample at least once every month for six months before returning to the six monthly sampling regime.

Notwithstanding that air quality test results are to be provided in an annual report, tests were undertaken in the previous reporting period (on 14 August) and results were set out in that report.

# Condition 8 - Monitoring of Hydrogen Sulphide (H<sub>2</sub>S)

**Hydrogen sulphide** ( $H_2S$ ) and other reduced sulphur compounds shall be monitored in the deodorised gas discharge. Monitoring shall be undertaken in the stack leading from the chemical scrubber system on a monthly basis. The results shall be provided annually in the annual report required under condition 14 of this permit, or on request.

The hydrogen sulphide ( $H_2S$ ) concentration in the deodorised gas discharged from the Moa Point WWTP scrubber system is continuously monitored by an online analyser. To meet the requirements of this consent condition, the daily maximum value is recorded for each day. The maximum of these values is reported as the monthly maximum  $H_2S$  concentration. For all the maximum values please see Appendix ii:  $H_2S$  and TRS Concentrations.

The total reduced sulphur compounds (TRS) concentration are measured once a month by an independent contractor. The Daily Maximum H2S Concentrations reports can be found in Appendix ii.

Date	Hydrogen Sulphide	Total Reduced Sulphur Compound	
MMM YYYY	ppm	ppm	
October 2024	0.0001	0.161	
November 2024	0.0000	0.093	
December 2024	0.0000	0.347	
Limit	0.01	0.05	

Table 41: H<sub>2</sub>S and TRS Concentrations

# Condition 9 - H2S and TRS Concentrations Limits

The discharge to air from the chemical scrubber system shall contain no more than **0.01ppm hydrogen sulphide** ( $H_2S$ ) and no more than **0.05ppm total reduced sulphur** compounds (including  $H_2S$ ).

The limits have been included in the table listed under WGN080003 [26183] Condition 8 and Appendix ii:  $H_2S$  and TRS Concentrations. Hydrogen sulphide concentration met the requirements given in Condition 9. Total Reduced Sulphur exceeded the condition limit.

# Condition 10 - Smoke Testing

The permit holder shall undertake **smoke testing** of the Moa Point wastewater treatment plant and ventilation system. The smoke tests are to be carried out on an **annual** basis between the months of August and November.

The results of the smoke test shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council within one month of the testing being carried out by the permit holder. A copy of the analysed results shall also be provided to the Community Liaison Group, if requested.

Smoke testing of the Moa Point WWTP was undertaken in this reporting period (November) and the report will be provided in the next reporting period.

# Condition 13 - Complaints

The permit holder shall keep a permanent record of any complaints received alleging adverse effects from the permit holder's operations. The complaints record shall contain the following where practicable:

- a. The name and address of the complainant, if supplied;
- b. Identification of the nature of the complaint;
- c. Date and time of the complaint and alleged event;
- d. Weather conditions at the time of the alleged event;
- e. Results of the permit holder's investigations; and
- f. Any mitigation measures adopted.

The permit holder shall notify the Manager, Environmental Regulation, Wellington Regional Council of any complaints relating to the exercise of this permit, within twenty-four hours of being received by the permit holder or the next working day.

The permit holder shall forward to the Manager, Environmental Regulation, Wellington Regional Council a copy of any complaints recorded in the annual report required by condition 14 of this permit.

There was one complaint on 12 November. GW responded but no odour was detected.

# WGN960094 [1471] - Discharge to Air - Moa Point Inlet Pumping Station

# Condition 11 - Monitoring of Hydrogen Sulphide (H<sub>2</sub>S)

The following monitoring shall be carried out and the results shall be forwarded to the Wellington Regional Council:

- a. The pumping station stack shall be tested for hydrogen sulphide and total reduced sulphur compounds. The concentrations shall not exceed 0.01ppm and 0.05ppm respectively. This testing shall be carried out monthly for the first six months of operation of the pumping station. The Regional Council shall then review the frequency. The method of testing shall be agreed to with the Wellington Regional Council.
- b. Records of the pH and the Oxidation Reduction potential of the scrubber solutions shall be kept by the consent holder and made available to the Wellington Regional Council. The form of these records shall be agreed to with the Wellington Regional Council prior to commissioning of the pumping station.

#### a) H<sub>2</sub>S and TRS

The  $H_2S$  concentration in the deodorised air discharged from the Moa Point IPS scrubber system is continuously monitored by an online analyser. To meet the requirements of this consent condition, the daily maximum value is recorded for each day. The maximum of these values is reported as the monthly maximum  $H_2S$  concentration. For all the maximum values please see Appendix ii:  $H_2S$  and TRS Concentrations.

The total reduced sulphur compounds (TRS) concentration are measured once a month by an independent contractor. The reports can be found in  $H_2S$  and TRS Concentrations.

Date	Hydrogen Sulphide	Total Reduced Sulphur Compound	
MMM YYYY	ppm	ppm	
October 2024	0.0011	<0.002	
November 2024	0.0001	<0.002	
December 2024	0.0005	<0.002	
Limit	0.01	0.05	

Table 42: H<sub>2</sub>S and TRS Concentrations

#### b) pH and Oxidation Reduction Potential

This information has not been requested by GWRC.

### Condition 13 - Complaints

The consent holder shall keep a record of any complaints they receive. The complaints shall be forwarded to the Wellington Regional Council within twenty-four hours of being received by the consent holder.

No complaints in the period.

Appendix i: Heavy Metals Analysis

The heavy metals sampling was conducted on 18 October 2024.

<b>(</b> )	eurofin	s				AR-24-NW-066035-01 Page 1 of 3	
		E	s hoc	Water Te	sting		
	ANALYTICAL REPORT						
REPOR	T CODE	AR	-24-NW-	066035-01	REPORT DATE	28/10/2024	
Attention	Veolia Water -	Wellingto	n				
	COA Email						
	Wastewater Tr	eatment F	Plant				
	WELLINGTON	6041					
	Wellington						
	NEW ŽEALAN	D					
Phone	(04) 388 0067						
Email	anz.eurofins.coa.a	II.groups@v	/eolia.com				
Contact	for your orders:	Deb Bott Mos Poir	rill t Regular	Testing	Order code:	EUNZWE-00211885	
Contract	6	wida Poli	it Negulai	resurg	Purchase Order Nu	mber: 7300403950	
SAMPLE	E CODE	812-202	4-001548	188			
Samplin	a Point code:	MOA EF	F G 1Q		Sampling Point na	me: Moa Effluent Grab 1Quarterly	
Receptio	on Date & Time:	18/10/20	24 12:10				
Analysis	Started on:	19/10/20	24		Analysis Ending Da	ate: 28/10/2024	
Product	Туре	Waste wa	ater		Sampled Date & Tir	me 18/10/2024 09:05	
	(5)	Gr	DESI	TE	Sampled by Euron	SPECIFICATIONS	
NIMOOLI	0.1		RESU	213	LOQ	SPECIFICATIONS	
NWUUU	2.3.4.6-Tetrachloroph	enol	<0.01	mail	0.01		
	2.4-Dichlorophenol	enor	<0.01	ma/l	0.01		
	2,6-Dichlorophenol		<0.2	mg/l	0.2		
	2-Chlorophenol (o-ch	lorophenol)	<0.01	mg/l	0.01		
	3,4,5-Trichlorophenol	l.	<0.01	mg/l	0.01		
	4-Chloro-3-cresol		<0.01	mg/l	0.01		
	Pentachlorophenol		<0.005	mg/l	0.005	c0.90 mail mail / Olioni Procification	
	Phenol		<0.01	mg/l	0.01	<0.80 mg/L mg/L v Client Specification	
	Total of 2,4,5 & 2,4,6 -Trichlorophenol		<0.02	mg/i	0.02		
			RESU	LTS	LOQ	SPECIFICATIONS	
NW676	Ammonia Nitroge	n					
	Ammonia nitrogen		21.8	mg/l	0.01		
NW679	Cyanide						
	Cyanide		<0.005	mg/l	0.005	<0.10 mg/L mg/l 🗸 Client Specification	
NW192	Oil & Grease						
	Total Oil and Grease		<4	mg/l	4		
NW195	pH (Tested beyond	d 15 minu	te APHA I	olding time)			
NUM 40	per		8.0		0.1		
NW149	Arsenic (As)		<0.002	mail	0.002	<0.26 mg/L mg/l ✓ Client Specification	
NW154	Total Cadmium		-0-004		0.002		
	Cadmium (Cd)		<0.001	mg/l	0.001	<0.08 mg/L mg/l 🗸 Client Specification	
NW157	Total Chromium			-			
	Chromium (Cr)		0.001	mg/l	0.001	<0.48 mg/L mg/l 🗸 Client Specification	
NW159	Total Copper						
Eurofine El	Slimited				Phone	+64 4 576 5016	
85 Port Ro	ad				www.eurofins.co.n	Z ATTING SCREDITES	
Seaview							
Lower Hutt Wellington	5010						
NEW ZEAL	AND					The CABORNER STRO LABORNER	

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# Food & Water Testing

		F00	od & wa	ter I	esting						
			RESULTS		1	.00	SPECIFICATIONS				
NW159	Total Cop	per									
	Copper (C	u) 0	.005	mg/l		0.002	<0.14 mg/L mg/l	1	Client Specification		
NW161	Total Lea	d									
	Lead (Pb)	<	0.001	mg/l		0.001	<0.48 < mg/L mg/l	1	Client Specification		
NW165	Total Mer	cury									
	Mercury (H	(g) <	0.001	mg/l		0.001	<0.01 mg/L mg/l	1	Client Specification		
NW167	Total Nic	kel									
	Nickel (Ni)	<	0.001	mg/l		0.001	<0.77 mg/L mg/l	1	Client Specification		
NW177	Total Zin	6									
	Zinc (Zn)	0	022	mg/l		0.005	<1.65 mg/L mg/l	1	Client Specification		
LIST OF	METHOD	s									
NWOOU	Chlorophe	nois: Internal Method. LC	-MS/MS		NW149	Total Arseni	ic: APHA Online Edition 3	125 F	3 mod.		
NW154	Total Cade	ium: APHA Online Editio	n 3125 B mod		NW157	Total Chron	aium: APHA Online Editio	n 312	5 B mod		
NW159	<ul> <li>Total Capmer: APHA Online Edition 3125 B mod.</li> <li>Total Capmer: APHA Online Edition 3125 B mod.</li> </ul>					Total Leads	ad: ADMA Online Edition 3125 B mod				
NW185	Total Copper: APHA Online Edition 3125 B mod.					Total Niekel	au, AFRA Online Edition 3120 6 mod.				
NW177	Total Mercury: APHA Online Edition 3125 B mod.				NMHOR		SKet: APMA Online Edition 3125 B mod.				
NW105	Total Zinc: APHA Online Edition 3125 B mod.				NW878	Oll & Greas	rease: APHA Online Edition 5520 B mod.				
1447155	APHA 24th	Edition 4500-H B	A notaing time	(DA)							
NW679	Cyanide: A	PHA Online Edition 4500	CN C & E								
2	mbace	abrol	1	TM	Int	_	Divita	C,	agojon		
Ganes	hllancko	Supervisor Eurofins ELS Limited	Gabi	iela Ihaes	Limited Description	nit Manager -	Lagazon	Limi	ted		
EXPLANATORY NOTE Test is not accredited Test is subcontracted within Eurofins group and is accredited Test is subcontracted within Eurofins group and is not accredited Test is subcontracted outside Eurofins group and is not accredited Test is subcontracted outside Eurofins group and is not accredited Test is subcontracted by the customer and is not accredited Tested at the sampling point by Eurofins and is not accredited Tested at the sampling point by Eurofins and is accredited Test is RLP accredited Test is subcontracted within Eurofins group and is RLP accredited					N/A means Not Applicable Not Detected means not detected at or above the Limit of Quantification (LOQ) LOQ means Limit of Quantification and the unit of LOQ is the same as the result unit (Unsatisfactory) means does not meet the specification (Satisfactory) means meets the specification MAV means Maximum Allowable Value						

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Appendix ii: H<sub>2</sub>S and TRS Concentrations

# Daily Maximum $H_2S$ Concentrations from the Moa Point IPS and WWTP

	October 2024		Novem	ber 2024	December 2024					
Day	IPS	WWTP	IPS	WWTP	IPS	WWTP				
	ppm		p	pm	ppm					
1	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
2	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
3	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
4	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
5	0.0000	0.0000	0.0000	0.0000	0.0007	0.00				
6	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
7	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
8	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
9	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
10	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
11	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
12	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
13	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
14	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
15	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
16	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
17	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
18	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
19	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
20	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
21	0.0000	0.0000	0.0000	0.0000	0.0002	0.00				
22	0.0000	0.0000	0.0000	0.0000	0.0001	0.00				
23	0.0000	0.0000	0.0000	0.0000	0.0005	0.00				
24	0.0000	0.0000	0.0000	0.0000	0.0003	0.00				
25	0.0011	0.0000	0.0000	0.0000	0.0001	0.00				
26	0.0000	0.0000	0.0001	0.0000	0.0001	0.00				
27	0.0000	0.0000	0.0001	0.0000	0.0001	0.00				
28	0.0000	0.0000	0.0024	0.0000	0.0001	0.00				
29	0.0000	0.0000	0.0013	0.0000	0.0002	0.00				
30	0.0000	0.0000	0.0016	0.0000	0.0005	0.00				
31	0.0000	0.0000			0.0001	0.00				
Limit	0.0100									