

# Seaview Wastewater Treatment Plant

Annual Resource Consents Report 2023/2024



This report has been prepared solely for the benefit of **Greater Wellington Regional Council**.

No liability is accepted by this company or any employee or sub-consultant of this company with respect to its use by any other person.

This disclaimer shall apply notwithstanding that the report may be made available to other persons for an application for permission or approval or to fulfil a legal requirement.

## **Control Sheet**

Document Title:	Seaview Wastewater Treatment Plant Annual Resource Consents Report 2023/2024
Prepared by:	Craig Shuttleworth
Reviewed by:	Joemar Cacnio
Approved by:	Blair Johnson

#### **Document Control Register**

Version	Status	Date	Details of Revision
0	Draft		Initial draft for review
1	Final	31/7/2024	Approved, Manager Wastewater Contracts

# **Executive Summary**

This report has been prepared on behalf of the Hutt City Council (HCC) for compliance with several resource consents. The resource consents have been divided into the following categories:

- Plant Discharge

-

- WGN050359 [24539]
- Wet Weather Discharge
  - WGN 120142 [33406]
- Maintenance Discharge
  - WGN 120142 [33407]
  - o WGN 120142 [33408]
  - o WGN 120142 [31740]
- Discharge to Air
  - WGN 950162 (01)
  - WGN 930193 (01)
  - WGN 930193 (02)
- Others
  - o WGN 930194

This annual report will cover the period from 1 July 2023 to 30 June 2024.

# **Table of Contents**

#### 2023/2024

Control Sheet	2
Executive Summary	3
Resource Consents	6
WGN050359 [24539]	9
Condition (2)	9
Condition (9)	10
Condition (10)	12
Condition (11)	13
Condition (14)	16
Condition (17)	16
Condition (18)	17
Section (a)	17
Section (b)	
Section (c)	23
Section (d)	23
Section (e)	23
Condition (19)	24
Condition (20)	25
Condition (22)	26
Section (a)	26
Section (b)	26
WGN120142 [33406]	27
Condition (4)	27
Condition (9)	28
Condition (10)	30
Condition (11)	31
Condition (12)	32
Condition (14)	33
Condition (15)	34
Condition (16)	35
Condition (20)	36
Condition (23)	37

Condition (25)
WGN 120142 [33407]
Condition 30
WGN120142 [33408]
Condition 3540
WGN950162 (1492)
Condition (6)41
Condition (15)41
Condition (16)43
Appendix I: Daily Effluent Quality Results44
Appendix II: Inflow and Infiltration Report
Appendix III. Trade Waste Report60
Appendix IV: Seaview Wastewater Treatment Plant Assessment of Effects of Overflow Discharges to Waiwhetu Stream61
Appendix V: Photographs of Discharge to Waiwhetu Stream April, May, June (2024) 62
Appendix VI: Record on Non-compliance notices issued64

## **Resource Consents**

## WGN050359 [24539]

Effluent discharge from the Seaview WWTP is governed by the resource consent under the Greater Wellington Regional Council consent file number WGN050359 [24539]. In general, this coastal permit allows the discharge of treated and disinfected wastewater to the coastal marine area through an existing outfall at Bluff Point. The outfall is located at map location NZMS 260: R27; 649.808.

The following report will outline the conditions in this resource consent that are required for that annual report.

### WGN120142 [33406]

In addition to the above resource consent, the discharge from the Seaview WWTP is governed by the resource consent under the Greater Wellington Regional Council consent file number WGN120142 [33406]. This discharge permit allows the temporary discharge of treated wastewater to the Waiwhetu Stream during and/or immediately after heavy rain events when flows exceed the capacity of the main outfall pipeline and the storm tank system is fully utilized. The location of the discharge is at map reference NZTM 1759407.5433210.

The following report will outline the conditions in this resource consent that are required for that annual report.

### WGN120142 [33407]

Another resource consent that governs the discharge from the Seaview WWTP is under the Greater Wellington Regional Council consent file number WGN120142 [33407]. This discharge permit allows the temporary discharge of treated wastewater from Seaview Wastewater Treatment Plant to the coastal marine area, and onto the land where it may enter streams or coastal marine area from:

- Planned repairs
- Unplanned repairs
- Leaks associated with temporary repairs, and
- Minor leaks

in relation to the main outfall pipeline from Seaview Wastewater Treatment Plant to Pencarrow Head.

The following report will outline the conditions in this resource consent that are required for that annual report.

### WGN120142 [33408]

Another resource consent that governs the discharge from the Seaview WWTP is under the Greater Wellington Regional Council consent file number WGN120142 [33408]. This discharge permit allows the temporary discharge of treated wastewater from Seaview Wastewater Treatment Plant to the Waiwhetu Stream when the main outfall pipeline is being repaired. The location of the discharge is at map reference NZTM 1759407.5433210.

The following report will outline the conditions in this resource consent that are required for that annual report.

### WGN120142 [31740]

The coastal permit under the Greater Wellington Regional Council consent file number WGN120142 [31740] allows the construction of a temporary channel on the foreshore to direct treated wastewater discharged from the scour valves on the main outfall pipeline into the sea to allow pipeline repair to be undertaken. The locations for these discharges are between map locations NZTM 1759804.5433065 and NZTM 1754999.5420657.

The following report will outline the conditions in this resource consent that are required for that annual report.

### WGN950162 (01)

The discharge to air resource consent permits the Seaview WWTP to discharge contaminants to the air from operation. The plant can discharge up to  $7m^3/s$  of combustion products and up to  $53m^3/s$  of air from the facility.

The following report will outline the conditions in this resource consent that are required for that annual report.

### WGN930193 (1)

The coastal permit allows the Seaview WWTP to continuously discharge contaminants to the air from the outfall venting structures and vents. The discharge location is at map reference NZMS 260 R27:650.808.

This resource consent does not contain any conditions that require annual reporting.

### WGN930193 (2)

The coastal permit allows the Seaview WWTP to continuously discharge contaminants to the air from the sewage outfall structure and the sewage effluent. The discharge location is at map reference NZMS 260 R27:650.808.

This resource consent does not contain any conditions that require annual reporting.

### WGN930194

The coastal permit allows the HCC to occupy the foreshore and seabed of the coastal marine area for the purposes of continued use of the existing sewage pipeline and outfall structure. The location is at map reference NZMS 260 R27:650.808.

This resource consent does not contain any conditions that require annual reporting.

# WGN050359 [24539]

## Condition (2)

The rate of discharge shall not exceed:

3,100L/s or 268,000 m3/day (peak wet weather flow)

Figure 1 below is a summary of the effluent flow for FY2023/2024. The flows are below the consent limit of 268,000 cubic metres/day.



Figure 1: WWTP Effluent Flow Summary

### **Condition (9)**

The following effluent standards shall apply at all times: Carbonaceous Biochemical Oxygen Demand (cBOD5) Compliance is based on daily 24 hour flow proportioned composite sampling, with a running geometric mean and eighty-percentile calculated each day using 90 consecutive daily test results. The geometric mean of 90 consecutive daily cBOD5 values shall not exceed 50g/m3 and more than 20% of 90 consecutive daily values shall exceed 85g/m3. Suspended solids Compliance is based on daily 24 hour flow proportioned composite sampling, with a running geometric mean and eighty-percentile calculated each day using 90 consecutive daily test results. The geometric mean of 90 consecutive daily suspended solids values shall not exceed 50g/m3 and more than 20% of 90 consecutive daily values shall exceed 85g/m3. **Faecal Coliforms** Compliance is based on daily grab samples to be taken between the hours of 10am and 4pm with a running geometric mean and eighty percentile calculated each day using 90 consecutive daily test results. The geometric mean of 90 consecutive daily faecal coliform values shall not exceed 1000 per 100mL and no more than 20% of 90 consecutive daily values shall exceed 5000 per 100mL.

Figure 2 below is a summary of the 90-day geometric mean and 90-day 80<sup>th</sup> percentile for the effluent Carbonaceous Biochemical Oxygen Demand (cBOD5). The facility has been compliant to cBOD5 requirements this FY2023/2024.





Figure 3 below is a summary of the 90-day geometric mean and 90-day 80<sup>th</sup> percentile for the effluent total suspended solids. The facility has been compliant to the effluent suspended solids requirements this FY2023/2024.



Figure 3: Effluent TSS Summary

Figure 4 below is a summary of the 90-day geometric mean and 90-day 80<sup>th</sup> percentile for effluent faecal coliform.



Figure 4: Effluent Faecal Coliform Summary

The plant was non-compliant for the faecal coliform requirements during this consent period.

## Condition (10)

The permit holder shall notify the Manager, Environmental Regulation, Wellington Regional Council immediately in the event that a running geometric mean and/or 80 percentile calculated daily from the monitoring programme exceeds the values stipulated in condition 9 for more than three consecutive days. Such a report 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.

The plant was non-compliant for the faecal coliform requirements during this consent period. On 1<sup>st</sup> October 2023 the 80<sup>th</sup> percentile limit of 5000 cfu/100Ml was breached. The limit for 90-day Geomean limit was also breached on 28<sup>th</sup> October 2023. Both faecal coliform parameters have remained non-compliant for the rest of the reporting period.

GWRC were notified when the geometric mean and/or 80<sup>th</sup> percentile limits were exceeded.

The non-compliance was caused by reduction of UV disinfection effectiveness due to the following reasons:

- The UV system is nearing the end of its expected life (a major refurbishment is scheduled for July/August 2025 and the UV renewal project expected to be completed within the 3-year LTP period)
- Petrochemical contamination entering the plant has reoccurred multiple times throughout the year negatively impacting the biological treatment process, most notably the UV system performance
- Significant wet weather events elevate faecal coliform levels
- Various mechanical failures in the primary sedimentation tanks (PST) which negatively impacted the downstream processes including the UV system.

Capital renewal projects are underway to renew the assets in the treatment plant which includes the UV system and PST.

### Condition (11)

Based on 24 hour flow-proportioned composite samples collected and analyzed once each month in accordance with conditions 6, 7 and 8 and Schedule 1 of this permit, all wastewater discharged through the outfall shall meet the following standards:

Analyte	Units	Standard:
		Over each 12-month period, from 1 July to 30 June, no more than 2 sample
		results shall exceed:
Dissolved Arsenic	mg/L	0.115
Dissolved	mg/L	0.035
Cadmium	mg/L	0.220
Dissolved	mg/L	0.065
Chromium	mg/L	0.350
Dissolved Copper	mg/L	0.220
Dissolved Nickel	mg/L	0.750
Dissolved Lead	mg/L	0.005
Dissolved Zinc	mg/L	0.200
Dissolved Mercury	mg/L	0.500
Cyanide		
Phenol		
Note:		
		<ol> <li>Two exceedances out of 12 samples is permitted to meet a 95-percentile discharge compliance standard, based on a discharger's risk of no more than 10% (from 'New Zealand Municipal Wastewater Monitoring Guidelines' NZWERF/MfE 2002)</li> </ol>
		2 The tweeted westerneter standards above are based on the ANZECC (2000)
		2. The treated wastewater standards above are based on the ANZECC (2000) marine water trigger levels for 'slightly to moderately disturbed ecosystems' multiplied by a factor of 50 to allow for reasonable mixing (the 50:1 dilution contour extends approximately 400 meters from the outfall).

Table 1 below summarises the monthly heavy metal analysis for the effluent. While there were some slight fluctuations, all parameters were below their consent limits.

Analyte	Limit	Unit	Geomean	Min	Max	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
Dissolved Arsenic	0.115	mg/L	0	0.001	0.02	0.00200	0.00200	0.00100	0.00100	0.00200	0.00300	0.00200	0.02	0.00100	0.00	0.001	0.001
Dissolved Cadmium	0.035	mg/L	0.0002	0.0002	0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.0002	0.00020	0.0002	0.0002	0.0002
Dissolved Chromium	0.220	mg/L	0.00133	0.001	0.002	0.00200	0.00100	0.00100	0.00100	0.00100	0.00200	0.00100	0.002	0.00100	0.001	0.001	0.002
Dissolved Copper	0.065	mg/L	0.00341	0.0024	0.0041	0.0036	0.0041	0.0036	0.0024	0.0031	0.0036	0.0039	0.0037	0.0039	0.003	0.0034	0.0026
Dissolved Nickel	0.350	mg/L	0.00819	0.0012	0.019	0.0180	0.0190	0.0080	0.0080	0.0080	0.0120	0.0100	0.0014	0.0100	0.0013	0.0014	0.0012
Dissolved Lead	0.220	mg/L	0.00112	0.0005	0.0024	0.00240	0.00150	0.00130	0.00090	0.00120	0.00210	0.00150	0.0005	0.00050	0.0005	0.0005	0.0005
Dissolved Zinc	0.750	mg/L	0.00391	0.0005	0.015	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.009	0.0014	0.01	0.015	0.008
Dissolved Mercury	0.005	mg/L	0.0005	0.0005	0.0005	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.0005	0.00050	0.0005	0.0005	0.0005
Cyanide	0.200	mg/L	0.01433	0.005	0.025	0.005	0.005	0.009	0.014	0.025	0.017	0.017	0.024	0.016	0.024	0.011	0.005
Phenol	0.500	mg/L	0.01	0.01	0.01	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.01
Oil and Grease	n/a	n/a	4.66667	4	10	4	4	4	4	4	4	4	4	6	4.000	10	4.000
Nitrate-Nitrogen	n/a	mg/L	2.695	0	6.58	0.00	0.00	0.00	4.06	2.69	0	2.28	4.62	4.33	6.58	3.37	4.41
Dissolved Reactive Phosphorus	n/a	mg/L	1.05625	0.03	2.23	0.1	0.1	0.2	0.575	1.86	0.1	0.03	1.97	1.93	1.79	1.79	2.23
pH	n/a		7.30833	7	7.9	7	7	7.5	7.5	7.4	7	7.00	7.60	7.20	7.4	7.2	7.9
Conductivity	n/a	mS/m	157.583	91	237	188	91	139	106	148	122	237	220	168	179	170	123
Ammonia Nitrogen	n/a	mg/L	23.6273	18	29	27.2	18	29	22	23.3	27	25.7	23.5	19.5	20.2	24.5	
Total Phosphorus	n/a	mg/L	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

 Table 1: Effluent Heavy Metal
 and other compounds analysis

#### **Condition (13)**

The permit holder shall collect representative coastal water samples from knee deep water at the following locations, once each month for six months through November to April inclusive each year, for the duration of this permit:

Fitzroy Bay 400 m SE of outfall (R27:651.807) Fitzroy Bay 100 m SE of outfall (R27:650.808) Fitzroy Bay 100 m NW of outfall (R27:648.808) Fitzroy Bay 400 m NW of outfall (R27:647.810) Pencarrow Head at Lighthouse (R27:647.816) Inconstant Point (R27:650.825) Hinds Point (R27:655.839)

The water samples shall be analyzed for faecal coliform and enterococci bacteria.

Table 2 summarises the coastal water sampling from November 2023 to April 2024. There were elevated bacteriological results in Fitzroy Bay 100m northwest of the outfall in November 2023. The likely cause of the elevated result is unknown however, the bacteriological levels in the succeeding sampling campaign returned to normal levels.

	Fitzroy Bay 4	00m SE of Outfall	Fitzroy Bay 1	.00m SE of Outfall	Fitzroy Bay 100m NW of Outfall		Fitzroy Bay 400m NW of Outfall		Pencarrow Head at Lighthouse		Inconstant Point		Hinds Point	
Date	Enterococci	Faecal Coliforms	Enterococci	Faecal Coliforms	Enterococci	Faecal Coliforms	Enterococci	Faecal Coliforms	Enterococci	Faecal Coliforms	Enterococci	Faecal Coliforms	Enterococci	Faecal Coliforms
	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml	cfu/100ml
21/11/2023	130	20	60	20	500	1400	50	220	10	20	10	110	10	10
14/12/2023	10	10	10	10	20	10	10	10	60	10	10	10	10	10
19/01/2024	10	10	10	10	10	10	10	10	10	10	60	80	10	10
9/02/2024	10	10	10	10	10	10	10	10	10	10	10	10	10	10
27/03/2024	10	20	10	10	40	10	10	30	10	10	10	20	10	50
3/04/2024	10	20	10	10	40	10	10	30	10	10	10	20	10	50

**Table 2: Coastal Water Sampling** 

## **Condition (14)**

The permit holder shall collect three replicate composite samples of the green-lipped mussel (Perna canaliculus) from the near shore waters at each of the following location during February or March of every second year, for the duration of this permit:

Fitzroy Bay 100 m NW of outfall (R27:648.808) Fitzroy Bay 400 m NW of outfall (R27:647.810) Pencarrow Head at Lighthouse (R27:647.816)

The flesh of the mussel samples shall be analysed for arsenic and trace metal (cadmium, chromium, copper,

mercury, lead, nickel and zinc) concentrations.

No green-lipped mussels were collected in this reporting period and no mussel species have been found in the locations stated by the consent.

An application to delete condition 14 of the coastal permit WGN050359 [24539] was lodged on 20 June 2024 to the Regional Council.

## Condition (17)

The permit holder shall make the results of all monitoring undertaken, as required by conditions of this permit, available to the Manager, Environmental Regulation, Wellington Regional Council on request, including provision of results in electronic format, and a monitoring report for each three-month period ending March, June, September and December shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council within 30 days after the end of each three month period. The quarterly report shall include reasons for any non-compliance and subsequent actions undertaken to remedy the non-compliance.

This annual report also intends to comply with this quarterly report requirement for the period April to June 2024. The required information for the conditions listed above can be found in this report.

## **Condition (18)**

The permit holder shall provide to the Wellington Regional Council an annual monitoring report by 31 July each year summarising compliance with the conditions of this permit. This report shall include as a minimum:

- a) A summary of all monitoring undertaken in accordance with the conditions of this permit and a critical analysis of the information in terms of compliance and adverse environmental effects;
- b) A comparison of data with previously collected data in order to identify any emerging trends;
- c) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this permit;
- d) Any measures that have been undertaken, to improve the environmental performance of the wastewater treatment and disposal system; and
- e) Any other issues considered to be important;

#### Section (a)

Table 3 summarises the treatment plant data monitored from July 2023 to June 2024. The median, minimum and maximum values are tabulated for each parameter.

Parameter	Units	Geomean	Minimum	Median	80 <sup>th</sup>
		Limit			Percentile
WWTP Effluent	m <sup>3</sup>	268 000	33 695	18 191	57.489
Discharge		200,000	55,055	-0,-9-	57,405
Daily Effluent BOD	g/m <sup>3</sup>	50	1	11	22
		50	4	11	22
Daily Effluent	g/m <sup>3</sup>				
Suspended Solids		50	3	15	24.8
Daily Effluent	cfu/100mL	1 000	10	12061	E7 446
Faecal Coliform		1,000	10	12901	57,440

#### **Table 3: Summary of Monitoring Results**

Effluent BOD and suspended solids are expected to have less than minor effect in the receiving environment as these parameters were compliant for the whole reporting period.

An assessment of environmental effects (AEE) for the ongoing non-compliance in faecal coliform requirements in Seaview WWTP has been commissioned by Wellington Water. The AEE report is provided in Appendix IV.

#### Section (b)

Below is the comparison of the effluent flow rates for the last five financial years.

#### WWTP Effluent Discharge Volume:

WWTP effluent discharge volume is used to establish a trend. In figure 5, it can be noted that the plant's effluent discharge volume is affected during wet weather.



Figure 5: Effluent Discharge Flow

#### WWTP Effluent BOD<sub>5</sub>:

To establish a trend, effluent BOD₅ 90-day rolling geometrical mean and 80<sup>th</sup> percentile in the last five financial years has been used. The plant is below the compliance limits.



Figure 5: Effluent cBOD5 Compliance

#### WWTP Effluent Suspended Solids:

To establish a trend, effluent suspended solids 90-day rolling geometrical mean and 80<sup>th</sup> percentile in the last five financial years has been used. The plant is below the compliance limits.



Figure 6: Effluent Suspended Solids Compliance

#### **WWTP Faecal Coliforms:**

To establish a trend, effluent faecal coliform 90-day rolling geometrical mean and 80<sup>th</sup> percentile in the last five financial years has been used. The plant has failed to consistently meet the effluent faecal coliform requirements since FY2020/21. The failure to meet consistent compliance can be attributed to the poor condition of the assets in the treatment plant especially the UV system, environmental factors such as proliferation of algae during summer, treatment process issues and presence of petrochemicals in the wastewater.



#### Figure 7: Effluent Faecal Coliform Compliance

A graphical representation of the daily effluent results can be found in Appendix I: Daily Effluent Results.

Table 4 below shows the statistical analysis of the analyte monitoring requirements as stated in schedule 11. The values are well below the limits throughout FY2023/2024.

Analyte	Limit	Unit	Geomean	Min	Max
Dissolved Arsenic	0.115	mg/L	0	0.001	0.02
Dissolved Cadmium	0.035	mg/L	0.0002	0.0002	0.0002
Dissolved Chromium	0.220	mg/L	0.0013333	0.001	0.002
Dissolved Copper	0.065	mg/L	0.0034083	0.0024	0.0041
Dissolved Nickel	0.350	mg/L	0.0081917	0.0012	0.019
Dissolved Lead	0.220	mg/L	0.0011167	0.0005	0.0024
Dissolved Zinc	0.750	mg/L	0.0039083	0.0005	0.015
Dissolved Mercury	0.005	mg/L	0.0005	0.0005	0.0005
Cyanide	0.200	mg/L	0.0143333	0.005	0.025
Phenol	0.500	mg/L	0.01	0.01	0.01
Oil and Grease	n/a	n/a	4.6666667	4	10
Nitrate-Nitrogen	n/a	mg/L	2.695	0	6.58
Dissolved Reactive Phosphorus	n/a	mg/L	1.05625	0.03	2.23
рН	n/a		7.3083333	7	7.9
Conductivity	n/a	mS/m	157.58333	91	237
Ammonia Nitrogen	n/a	mg/L	23.627273	18	29
Total Phosphorus	n/a	mg/L	0	0	0

 Table 4: Heavy metals and other monitoring compounds statistical analysis.

Table 5 below is the statistical analysis of the analyte monitoring requirements for coastal water sampling. The results are consistent throughout FY2023/2024 with the exception of the bacteriological levels in Fitzroy Bay 100 NW of the outfall. This sampling site had elevated results in November 2023 which increased the geomean results.

Location	Analyte	Unit	Geomean	Min	Max
Fitzroy Bay 400m SE of Outfall	Enterococci	cfu/100ml	30.00	10	130
Fitzroy Bay 400m SE of Outfall	Faecal Coliforms	cfu/100ml	15.00	10	20
Fitzroy Bay 100m SE of outfall	Enterococci	cfu/100ml	18.33	10	60
Fitzroy Bay 100m SE of outfall	Faecal Coliforms	cfu/100ml	11.67	10	20
Fitzroy Bay 100m NW of outfall	Enterococci	cfu/100ml	103.33	10	500
Fitzroy Bay 100m NW of outfall	Faecal Coliforms	cfu/100ml	241.67	10	1400
Fitzroy Bay 400m NW of outfall	Enterococci	cfu/100ml	16.67	10	50
Fitzroy Bay 400m NW of outfall	Faecal Coliforms	cfu/100ml	51.67	10	220
Pencarrow Head at Lighthouse	Enterococci	cfu/100ml	18.33	10	60
Pencarrow Head at Lighthouse	Faecal Coliforms	cfu/100ml	11.67	10	20
Inconstant Point	Enterococci	cfu/100ml	18.33	10	60
Inconstant Point	Faecal Coliforms	cfu/100ml	41.67	10	110
Hinds Point	Enterococci	cfu/100ml	10.00	10	10
Hinds Point	Faecal Coliforms	cfu/100ml	23.33	10	50

 Table 5: Coastal Water Monitoring statistical analysis

#### Section (c)

The plant was non-compliant for the faecal coliform requirements during this consent period.

In summary the non-compliance was caused by a reduction of UV disinfection effectiveness due to the following reasons:

- The UV system is nearing the end of its expected life
- Petrochemical contamination entering the plant has occurred multiple times throughout the year, negatively impacting the biological treatment process, most notably the UV system performance
- Significant wet weather events elevate faecal coliform levels
- Various mechanical failures in the primary sedimentation tanks (PST) which negatively impacted the downstream processes including the UV system.

#### Section (d)

The poor compliance performance can mostly be attributed to poor condition of the assets across the treatment plant. These assets have been identified and programmed for renewal subject to councils funding.

Wellington Water is developing a compliance plan which will lay out the activities that will need to be undertaken for the plant to meet the consent more consistently. The plan will consist of different workstreams such as:

- 1. Process control and operational administration
- 2. Maintenance
- 3. Capital Renewal Programme

The compliance plan will document a large range of inter-related actions and renewal projects that need to be completed before reliable compliance can be achieved. Process control and operational administration, and maintenance are mainly short-term measures, while the renewal programme is longer term.

The compliance plan is currently at the very early stage of planning and the timeline still needs to be agreed by relevant stakeholders.

#### Section (e)

A number of non-compliance notices including an Abatement were received from GWRC in relation to this consent condition for FY2023/24, these can be found in more detail in Appendix VI.

## Condition (19)

The permit holder shall take reasonable steps to investigate ways and means of minimizing infiltration and stormwater ingress into the sewerage system and provide the Manager, Environmental Regulation, Wellington Regional Council, with an annual report by 31 July on progress.

A report for inflow and infiltration can be found in Appendix II: Inflow and Infiltration Report.

## **Condition (20)**

The permit holder shall take reasonable steps to monitor and manage trade waste inflows into the sewerage system so as to minimize the risk of disruption to the wastewater treatment process. The permit holder shall provide the Manager, Environmental Regulation, Wellington Regional Council, with an annual report on trade waste which summarises issues arising and actions taken by 31 July.

A report compiled by the Hutt City Tradewaste team can be found in Appendix III: HCC Trade Waste Report 2023/24.

## **Condition (22)**

The permit holder shall submit an annual report for the main outfall pipeline, which addresses activities undertaken during the previous year, to the Manager, Environmental Regulation, Wellington Regional Council, by 31 July each year. This report shall include, but not be limited to, the following elements:

- (a) Details of works (including any repairs and replacements) undertaken during the past year; and
- (b) Collation and assessment of the results of any environmental monitoring undertaken during the year.

#### Section (a)

There were no repairs, planned or unplanned, to the main outfall pipeline in 2023/24.

#### Section (b)

There was no environmental monitoring related to the main outfall for FY23/24 since there was no physical works undertaken in the outfall during this financial year.

# WGN120142 [33406]

## **Condition (4)**

The consent holder shall establish a consultation group by 1 March 2013 of within a longer timeframe approved by the Manager, Environmental Regulation, Wellington Regional Council. As a minimum the group shall be made up of those individuals/community groups that submitted on this consent who wish to participate and interested persons put forward by those submitters who wish to participate.

The functions of the consultation group is to provide:

- Comment on the Public Notification Strategy required by condition 5 of this consent
- Comment on the Overflow Contingency Plan required by condition 22 of this consent
- Comment on the option assessment report required by condition 26 of this consent directly to Wellington Regional Council, and
- Be a line of communication between the consent holder, the submitters, and the wider community for the duration of the consent

The consent holder shall notify the Manager, Environmental Regulation, Wellington Regional Council of the establishment of consultation group by 1 March 2013.

Note 1: The consultation group is considered "established" when the consent holder has collated contact details for all submitters/interested persons joining the group, and the group has been provided with a plan of how the consultation process will be facilitated.

Note 2: The consultation group is not a decision making group, but is a forum for the dissemination of information from the consent holder and provides and opportunity for the group to comment on consent compliance and the development of specific plans.

Note 3: The consultation group is expected to provide comments to the consent holder within two weeks of being sent information/plans to review.

Note 4: The need for and the frequency of the meetings shall be determined by the consultation group following the receipt of the reports/plans received in accordance with this condition.

The Seaview WWTP CLG meeting took place on 21<sup>st</sup> March 2024 at the Pelorus Sports House, Lower Hutt. The minutes of the meeting were circulated to the group and shared to the Wellington Water website for public perusal.

### **Condition (9)**

The consent holder shall monitor the flow rate, duration and total volume of all overflows discharged from the treatment plant into the Waiwhetu Stream and shall report the results to Wellington Regional Council in accordance with condition 25 of this consent, or upon request.

The flow monitoring devices shall be capable of measuring wastewater flows of magnitudes up to and beyond peak instantaneous flow rates, and calibrated and maintained to ensure that the measurement error is no more than +/- 10%.

The following Table 8 is a summary of the flow rates, duration, and total volume of overflow discharges from the Seaview WWTP to the Waiwhetu Stream:

Date	Duration	Volume	Mean Flow	Peak Flow	Consented	Reason
	hrs/mins	m³	L/s	L/s		
24 Jul 2023	60hr 03m	4,371	202	722	Yes	Wet Weather
28 Jul 2023	62hr 31m	26,394	500	1,118	Yes	Wet Weather
02 Aug 2023	19hr 44m	346	192	674	Yes	Wet Weather
16 Aug 2023	21hr 34m	29,480	427	984	Yes	Wet Weather
20 Aug 2023	01hr 35m	1,393	310	691	Yes	Wet Weather
27 Sep 2023	102hr 57m	18,548	140	1,667	Yes	Wet Weather
25 Oct 2023	02hr 08m	540	70	181	Yes	Wet Weather
17 Dec 2023	05hr 46m	4,742	227	2,951	Yes	Wet Weather
31 Jan 2024	00hr 24m					Power outage but conveyed to the Coastal Marine Area (CMA) not the stream

04 Mar 2024	00hr 30m	20.83	11.20	91.98	Yes	Wet Weather
08 Mar 2024	01hr 10m	2283.5	536.03	547.9	No	Power outage but conveyed to the CMA not the stream
07 Apr 2024	01hr 20m	1118.62	230.17	244.59	No	Power outage but conveyed to the CMA not the stream
12 Apr 2024	32hr 58m	39.314	460	1,267	Yes	Wet Weather
01 May 2024	13hr 18m	27,063	622	1,396	Yes	Wet Weather
22 May 2024	05hr 40m	5411.80	328	749	Yes	Wet Weather

 Table 8: Seaview WWTP Discharge Events

## **Condition (10)**

The consent holder shall install, commission and operate a flow sensor as close as practicable to the discharge point in the Waiwhetu Stream by 1 August 2013 to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council that is capable of continuously monitoring and logging flow in the stream during a discharge event.

Note: It is recommended that the design, specification and operation of the flow sensor are discussed with Greater Wellington Flood Protection and Environmental Monitoring and Investigation Departments prior to installation.

The Waiwhetu River flow rates were submitted to GWRC as trends in the discharge notifications. The average, minimum, and maximum flow rates of the Waiwhetu Stream are included in every discharge report.

Please note due to instrument failure the stream flow records were not available for the discharges occurring from October – May 2024. After unsuccessful attempts to repair the original stream flow device, the decision was made in May to replace and upgrade the instrument with this being installed and commissioned in May 2024.

## Condition (11)

The consent holder shall take a grab sample of treated wastewater as it leaves the treatment plant prior to entering the overflow pipe each day that a discharge occurs for more than one hour. The sample shall be analyzed for parameters specified in condition 14.

A complete list of all the analytical results can be found in Appendix IV: Seaview Wastewater Treatment Plant Assessment of Effects of Overflow Discharges to Waiwhetu Stream.

## Condition (12)

Each day a discharge occurs and one day after the cease of a discharge the consent holder shall take representative grab samples of Waiwhetu Stream water at <del>two levels in the water column, namely 0.5 centimetres and</del> 15 centimetres below the surface. The samples shall be collected from the true left bank of the Waiwhetu Stream at locations specified in Table 1.1:

Table 1.1 Water quality monitoring locations

Site	NZTM		
	Easting	Northing	
Immediately upstream of the port Road Bridge	1759345	5433136	
Adjacent to the Waiwhetu Pa site and downstream of the public walkway	1759539	5433352	
Immediately downstream of the Bell Road Bridge	1760431	5433523	

The consent holder shall record the date, time (NZ standard time), weather (in particular wind direction and strength) and tidal conditions (low/medium/high and ebb/flood tide) at the stream mouth when the samples are taken. Where practicable, the sampling should be undertaken at least three house after any ebb tide starts.

Note: This condition does not apply to overflows with a duration of less than one hour.

An assessment was performed on the overflow discharges of treated wastewater from the Seaview treatment plant to the Waiwhetu Stream during wet weather events. The report contains a map of the sampling sites and all the environmental conditions at the time of sampling. A copy of the report can be found in Appendix IV: Seaview Wastewater Treatment Plant Assessment of Effects of Overflow Discharges to Waiwhetu Stream.

## **Condition (14)**

The samples collected in accordance with conditions 11 and 12 shall be analyzed for:

- Faecal Coliforms (cfu/100mL)
- Carbonaceous Biochemical Oxygen Demand (g/m<sup>3</sup>)
- Enterococci(no./100mL)
- Escherichia coli (no./100mL)
- Dissolved Reactive Phosphorus (g/m<sup>3</sup>)
- Ammoniacal Nitrogen (g/m<sup>3</sup>)
- Nitrate Nitrogen (g/m<sup>3</sup>)
- Nitrite Nitrogen (g/m<sup>3</sup>)

In addition, on each sampling occasion at the three locations along the Waiwhetu Stream as described in condition 12 the consent holder shall ensure the following in-situ measurements are recorded:

- Water temperature
- pH
- Salinity, and
- Dissolved oxygen.

An assessment of the above results shall be provided in the annual report required by condition 25. Copies of the water quality monitoring results shall be provided in both electronic and hardcopy format to the Manager, Environmental Regulation, Wellington Regional Council upon request.

A complete list of all the analytical results can be found in Appendix IV: Seaview Wastewater Treatment Plant Assessment of Effects of Overflow Discharges to Waiwhetu Stream.

## Condition (15)

- (a) The discharge shall not result in any of the following effects on the water of the Waiwhetu Stream beyond the reasonable mixing zone boundary defined as 100m downstream of the Waiwhetu Stream outfall (i.e. immediately upstream of Port Road Bridge) and 100m upstream the Waiwhetu Stream outfall (i.e. adjacent to Lot 2 DP 421395):
  - 1) The product of any conspicuous oil or grease or grease films, scums or foams or floatable or suspended materials, or
  - 2) Any conspicuous change in colour or clarity
  - 3) Any emission of objectionable odour, or
  - 4) Any significant adverse effects on aquatic life
- (b) During each sampling event required by condition 12, the consent holder shall take photographs of the point of discharge and immediate receiving waters around the point of discharge to shower the presence of any of effects (1-4) listed in condition 15 (a) and any obvious undesirable biological growths or visible die-offs. The consent holder shall forward to the Manager, Environmental Regulation, Wellington Regional Council a copy of the photographs in the annual report required by condition 25 of this consent or upon request.

All photographs were submitted to GWRC as part of the quarterly resource consent compliance reports. Please refer to the following documents:

Wastewater Project – Resource Consent Compliance Report: July – September 2023/2024 Wastewater Project – Resource Consent Compliance Report: October – December 2023/2024 Wastewater Project – Resource Consent Compliance Report: January – March 2023/2024

Appendix V: Photographs of Discharge to Waiwhetu Stream April, May, June (2024) (Note: there were no discharges in June 2024 thus no photos)

## **Condition (16)**

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

- Name and address of complaint (if provided)
- Identification of the nature of the complaint
- Date and time of the complaint and of the alleged event
- Weather conditions at the time of alleged event, and
- Any measures taken to address the cause of the complaint

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

Notification can be sent to the Manger, Environmental Regulation, Wellington Regional Council at <u>notifications@gw.govt.nz</u>. Please include the consent reference WGN120142 [31523] and the name and phone number of a contact person responsible for the discharge. The consent holder shall forward to the Manger, Environmental Regulation, Wellington Regional Council a copy of the complaints record, in the annual report required by condition 25 of this consent.

There were no complaints recorded relating to the effluent discharge of Seaview WWTP in this reporting period.

## Condition (20)

The results of the monitoring required by the TWVMP, shall be reported to the Manager, Environmental Regulation, Wellington Regional Council, on an annual basis, by 1 August, once the TWVMP has been approved. The assessment of the monitoring results shall be undertaken by a suitably qualified person that is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

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

- The results of all monitoring undertaken under the TWVMP
- A discussion of the likely impact the discharges are having/had on the cultural values of the waterbody including cumulative effects, if possible
- A comparison of these results with any previous monitoring undertaken in accordance with the TWVMP
- Any recommendations for changes to the TWVMP (e.g. indicator species, monitoring sites), and why
- Any recommendations for mitigation and minimizing the impact of the discharges on cultural values of the waterbody, if possible
- Copies of any comments on the monitoring results that have been received from the organisations included in condition 18, and
- Any other relevant information

The report shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

A copy of the TWVM report shall be provided to the Te Runanganui o Taranaki Whanui kit e Upoko o te Ika Maui, Port Nicholson Block Settlement Trust and the Wellington Regional Council.

Development of the TWVMP has been delayed. GWRC needs to provide further information for this to proceed.

## **Condition (23)**

The consent holder shall investigate and implement ways and means of reducing stormwater infiltration and inflow (I&I) into the sewerage system with the aim of minimising overflow discharges. Investigations shall include but no be limited to:

- CCTV and pressure testing monitoring to identify faulty mains requiring replacement, and
- Flow monitoring and system assessment to identify the sources of inflow and infiltration, system performance and options to reduce the infiltration and inflow

The investigations and works undertaken to reduce I&I shall be reported on in the annual report required by condition 25.

An update regarding infiltration and inflow can be found in Appendix II: Inflow and Infiltration Report.

## Condition (25)

The consent holder shall prepare and submit comprehensive annual report to the Manager, Environmental Regulation, Wellington Regional Council, Regional Public Health and members of the consolation group as required by condition 4 of this consent by 1 August each year (covering the year 1 July to 30 June). The annual report shall include as a minimum:

- A summary of overflow events (including dates, volumes discharged, duration and cause)
- A summary of consolation group involvement
- The flow monitoring results (carried out under conditions 9 and 10 of this consent)
- The treated wastewater and water quality monitoring results (carried out under conditions 11 and 12 of this consent)
- A critical evaluation by an appropriately qualified and experienced scientist of the previous years monitoring results, in particular the environmental effects of each overflow discharge event. This evaluation shall utilize the treated wastewater and stream quality and flow monitoring data for each overflow event comparing the data against relevant environmental guidelines
- Photographs from the visual inspections undertaken under condition 15(b) of this consent
- Complaints record as required by condition 16
- Summary of II investigations, and work undertaken to reduce I&I into the sewerage network as required by condition 23
- Summary of investigations undertaken, a list of investigations scheduled for the upcoming year (required by condition 24), and timeframes for implementation of any upgrades and/or consent applications, and
- Any other matters the consent holder considers relevant.

The report shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

An assessment was performed on the overflow discharges of treated wastewater from the Seaview Treatment Plant to the Waiwhetu Stream. The majority of the reporting requirements are contained within that report. A copy of the report can be found in Appendix IV: Seaview Wastewater Treatment Plant Assessment of Effects of Overflow Discharges to Waiwhetu Stream.

Other reporting requirements not found in the AEE report can be found under the various conditions of resource consent WGN 120142 [33406].

# WGN 120142 [33407]

The permit allows the temporary discharge of treated wastewater to the coastal marine area, and onto land where it may enter streams or the coastal marine area from:

- Planned repairs
- Unplanned repairs
- Leaks associated with temporary repairs and
- Minor leaks

In relation to the main outfall pipeline from Seaview WWTP to Pencarrow Head.

## **Condition 30**

The consent holder shall prepare and submit a comprehensive annual report to the Manager, Environmental Regulation, Wellington Regional Council and Regional Public Health and members of the consultation group as required by condition 10 of this consent by 1 August each year (covering the year 1 July to 30 June). The annual report shall include as a minimum:

A detailed summary of repairs undertaken on the pipeline in the last twelve months (i.e. planned and unplanned repair work) including detail on the length and location of repairs and any associated monitoring
Repair work planned for the upcoming year

•The condition of temporary repairs made on the pipeline and programme for permanent repair

•A critical evaluation by an appropriately qualified and experienced scientist of the previous years monitoring results, in particular the environmental effects of each discharge event. This evaluation shall utilise the treated wastewater and water quality data, comparing the data against relevant environmental guidelines

•Summary of consultation group involvement

•Photographs of scour valves (required by condition 17 (b)) accompanied by field observations or comments as appropriate

- •The complaints record (required by condition 22)
- Summary of investigations undertaken, a list of investigations scheduled for the upcoming year (required by condition 28), and timeframes for implementation of any upgrades and/or consent applications, and
  Any other matters the consent holder considers relevant

The report shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

There were no planned or unplanned repairs to the main outfall pipeline for FY23/24 hence this consent was not utilised for this reporting period.

# WGN120142 [33408]

To temporarily discharge treated wastewater from the Seaview WWTP to the Waiwhetu Stream when the main outfall pipeline is being repaired.

### **Condition 35**

The consent holder shall prepare and submit a comprehensive annual report to the Manager, Environmental Regulation, Wellington Regional Council, Regional Public Health and the consultation group as required by condition 7 of this consent by 1 August each year (covering the year 1 July to 30 June). The annual report shall include as a minimum:

• A summary of overflow events (including dates, volume discharged, tidal conditions during discharges, the discharge duration and cause)

•Flow monitoring results (carried out under conditions 12 and 13 of this consent);

• Treated wastewater and water quality monitoring results (carried out under conditions 14 and 15 of this consent)

•Summary of consultation group involvement

• A critical evaluation by an appropriately qualified and experienced scientist of the previous years monitoring results, in particular the environmental effects of each overflow discharge event. This evaluation shall utilise the treated wastewater and stream water quality and flow monitoring data for each discharge event comparing the data against relevant environmental guidelines

•Photographs from the visual inspections undertaken under condition 18 (b) of this consent

There were no planned or unplanned repairs to the main outfall pipeline for FY23/24 hence this consent was not utilised for this reporting period.

# WGN950162 (1492)

## **Condition (6)**

On completion of commissioning, there shall be no discharges to air that are noxious, dangerous, offensive or objectionable at or beyond the boundary of the property. These discharges include odour and dust.

The plant's odour control system is in poor condition which affected the sites overall odour treatment performance. This caused many odour complaints from the community and the regional council to issue non-compliance notices related to the odour treatment performance of the treatment plant.

To resolve the odour issue, the Seaview Odour control renewal project has been initiated. The project is being delivered in three stages: Stage 1 - Biofilter renewal works Stage 2 - Milliscreen ducting, milliscreen odour building treatment and dryer building odour treatment Stage 3 - Remaining sources – e.g. dryer

Regular updates are being released to the community and relevant stakeholders on the progress of the project.

## Condition (15)

The consent holder shall carry out monitoring of air-borne pathogens to demonstrate compliance with condition 6. Monthly sampling at agreed sites for the first three months after commissioning and then at three monthly intervals thereafter for the first two years of operation with this frequency to be reviewed at the end of this period.

The location of the samples sites shall be mutually agreed between the consent holder and the Manager, Consents Management, Wellington Regional Council.

The testing shall be carried out by a standard method to the satisfaction of the Manager, Consents Management, Wellington Regional Council.

Ambient microbe monitoring has been carried out on 25<sup>th</sup> January 2024. The results of the monitoring was forwarded to Regional council and is shown in the table below.

Site	Total		Filter 1 Brea	kdown of To	otal Count		Fil	lter 2		Filter 3	
	(CFU/m <sup>3</sup> ) <sup>1</sup>	Total Bacteria (CFU/m³)ª	Total Actinomycettes (CFU /m³)ª	Total F/Fungi <sup>b</sup> (CFU /m <sup>3</sup> )ª	Total Yeasts (CFU/m³)ª	Aspergillus Fumigatus º (CFU /m³)ª	Gram Negative (CFU/m³)ª	Enterococci (CFU /m³)ª	Salmonella Present/Absent	Total Coliforms Present/Absent	Faecal Coliforms Present/Absent
Site 1	385	59	<2	326	<2	<2	3	<3	Absent	Absent	Absent
Site 2	305	68	<4	233	4	<4	<4	<4	Absent	Absent	Absent
Site 3	765	247	<3	518	<3	<3	<3	<3	Absent	Absent	Absent

a) CFU/m<sup>2</sup> = Colony forming units
 b) F/Fungi = Filamentous Fungi

Aspergillus fumigatus count is included in the Total Fungi count

Table 9 Seaview Wastewater Treatment Plant Ambient Microbe Monitoring, 25 January 2024

It has been agreed with GWRC that the ambient microbe monitoring will be carried out once per year.

The agreed sampling location sites are shown below:

#### Locations

- All sampling shall be taken at the boundary;
- 1. At the gate of the plant
- 2. At the eastern boundary
- 3. Southern boundary near Wareham place
- 4.1 x downwind location (determined on day of sampling)



Figure 1: sampling locations for airborne pathogen testing

## **Condition (16)**

The consent holder shall keep a record of any complaints received. The complaints shall be forwarded to the Manager, Consents Management within twenty-four hours of being received by the consent holder.

The consent holder shall endeavour to record the complainants name, time of incident that caused the complaint, wind direction and speed and plant operating conditions at the time of the complaint.

Any incident that could have caused or has caused adverse effects on the environment at or beyond the boundary of the site shall be notified to the Wellington Regional Council within twenty-four hour. This includes any incidents that result in complaints.

Wellington Water received a total of 244 odour complaints associated to Seaview WWTP for this reporting period 2023/24. This was primarily in relation to the biofilter issues in the summer period before the media was replaced. A full list of these complaints detailing the above requirements can be forwarded upon request.

In response to public concern over increased odour, Wellington Water combined the annual Community Liaison Group meeting with a joint session dedicated to the elevated odour complaints where members of the local community could express their concerns and share opinions on the matter. This also gave the project team opportunity to provide assurances and convey their plans to address the issues in both the short and long term. The minutes for this meeting were uploaded on the Wellington Water website. Wellington Water has since committed to keeping the community informed on progress of the projects that concern odour treatment at the plant, on a regular basis.

A number of non-compliance notices were issued GWRC in relation to this condition in the reporting period, these can be found in more detail in Appendix VI.

# **Appendix I: Daily Effluent Quality Results**







It can be noted that the sample threshold for faecal coliforms seems to have been limited to 60,000 cfu/100mL by the laboratory during analysis. The figures were likely greater than this, discussions about raising the threshold have taken place and will likely be increased in the FY 24/25 to give a more indicative trend.

BOD	)
-----	---

Day	April 2024			May 2024			June 2024		
	Results	90-Day Geometric Mean	90-Day 80th Percentile	Results	90-Day Geometric Mean	90-Day 80th Percentile	Results	90-Day Geometric Mean	90-Day 80th Percentile
	g/m³	g/m³	g/m₃	g/m³	g/m³	g/m³	g/m³	g/m₃	g/m³
1	10	14.38	22.00	44	13.39	19.20	6	10.93	17.00
2	15	14.32	20.40	10	13.13	19.00	10	10.99	17.00
3	10	14.15	20.00	6	12.92	18.20	10	10.90	17.00
4	45	14.34	20.40	5	12.85	18.20	10	10.83	17.00
5	11	14.21	20.00	16	12.95	18.20	9	10.74	16.20
6	27	14.45	20.40	9	12.91	18.20	10	10.62	16.00
7	17	14.51	20.40	7	12.85	18.20	10	10.50	16.00
8	9	14.40	20.40	7	12.79	18.20	7	10.39	15.20
9	10	14.29	20.40	8	12.76	18.20	8	10.24	14.20
10	10	14.20	20.40	6	12.68	18.20	7	10.12	13.20
11	13	14.11	20.00	6	12.54	18.20	8	9.96	13.00
12	108	14.40	20.40	6	12.42	18.20	13	9.81	13.00
13	21	14.66	21.20	6	12.34	18.20	13	9.78	13.00
14	9	14.50	20.20	5	12.21	18.20	10	9.72	12.20
15	22	14.49	20.20	8	12.14	18.20	10	9.72	12.20
16	12	14.34	20.00	8	12.09	18.20	14	9.81	13.00
17	10	14.08	20.00	7	11.96	18.20	13	9.85	13.00
18	10	13.87	20.00	7	11.78	18.00	10	9.83	13.00
19	7	13.70	20.00	8	11.72	18.00	15	9.93	13.00
20	8	13.57	20.00	5	11.56	18.00	15	10.00	13.00
21	9	13.45	19.20	12	11.56	18.00	5	9.90	13.00
22	9	13.37	19.20	10	11.51	18.00	6	9.90	13.00
23	10	13.34	19.20	9	11.54	18.00	6	9.85	13.00
24	8	13.26	19.20	5	11.50	18.00	6	9.73	13.00
25	8	13.17	19.20	9	11.50	18.00	7	9.74	13.00
26	16	13.09	19.00	12	11.45	18.00	11	9.78	13.00
27	6	13.09	19.00	7	11.33	18.00	10	9.74	13.00
28	16	13.15	19.00	8	11.21	18.00	9	9.73	13.00
29	8	13.11	19.00	7	11.10	17.20	7	9.66	13.00
30	17	13.10	19.00	7	10.98	17.00	7	9.63	13.00
31				6	10.93	17.00			
Limits	N/A	50	85	N/A	50	85	N/A	50	85

#### Suspended Solids

	April 2024			May 2024			June 2024		
Day	Results	90-Day Geometric Mean	90-Day 80th Percentile	Results	90-Day Geometric Mean	90-Day 80th Percentile	Results	90-Day Geometric Mean	90-Day 80th Percentile
	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³	g/m³
1	13	17.98	23.00	59	17.85	24.00	7	13.88	21.00
2	17	17.92	23.00	10	17.39	24.00	9	13.66	20.20
3	31	18.09	23.20	15	17.17	22.40	6	13.46	20.00
4	61	18.33	24.00	14	17.16	22.40	6	13.30	20.00
5	19	18.48	24.00	20	17.22	22.40	8	13.28	20.00
6	37	18.68	24.00	15	17.17	22.40	14	13.22	20.00
7	21	18.69	24.00	9	17.02	22.40	10	13.19	20.00
8	13	18.57	24.00	9	16.89	22.40	11	13.12	20.00
9	25	18.62	24.20	9	16.78	22.40	7	13.02	20.00
10	16	18.66	24.20	7	16.65	22.40	8	12.95	20.00
11	29	18.85	25.00	11	16.49	22.00	7	12.80	20.00
12	159	19.25	25.00	8	16.36	22.00	8	12.69	20.00
13	14	19.18	25.00	6	16.13	22.00	11	12.60	19.20
14	9	19.06	25.00	6	15.99	22.00	10	12.52	19.20
15	35	19.13	25.00	7	15.91	22.00	12	12.50	19.20
16	16	18.84	25.00	12	15.94	22.00	26	12.57	20.00
17	11	18.45	24.20	10	15.78	22.00	17	12.60	20.00
18	10	18.22	24.00	6	15.56	22.00	8	12.45	19.20
19	9	18.07	24.00	8	15.54	22.00	16	12.56	19.20
20	10	17.94	24.00	6	15.34	22.00	16	12.53	19.00
21	15	18.00	24.00	33	15.40	22.00	6	12.39	19.00
22	10	17.90	24.00	10	15.24	21.20	5	12.30	19.00
23	19	18.07	24.00	67	15.53	22.00	5	12.14	19.00
24	12	18.04	24.00	6	15.30	21.20	5	11.96	19.00
25	6	17.84	24.00	6	15.17	21.20	8	11.89	19.00
26	9	17.56	24.00	6	15.00	21.20	11	11.87	19.00
27	6	17.45	24.00	6	14.81	21.20	9	11.85	19.00
28	22	17.51	24.00	6	14.39	21.00	8	11.82	19.00
29	21	17.65	24.00	47	14.45	21.00	7	11.72	19.00
30	21	17.64	24.00	6	14.20	21.00	9	11.68	19.00
31				6	14.03	21.00			
Limits	N/A	50	85	N/A	50	85	N/A	50	85

#### Faecal coliforms

	April 2024			May 2024			June 2024		
Day	Results	Geometric Mean	90-Day 80th Percentile	Results	Geometric Mean	90-Day 80th Percentile	Results	Geometric Mean	90-Day 80th Percentile
	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL	cfu/100mL
1	2245	13412	60000	60000	10928	57446	765	3820	47787
2	3464	12993	60000	31464	10920	57446	1470	3713	47787
3	4195	12615	60000	34641	11186	57446	4596	3754	47787
4	7348	12343	60000	51962	11168	57082	115	3502	40605
5	5657	12031	60000	47487	11240	57082	36469	3652	40605
6	54772	12182	60000	26153	11363	57082	849	3595	40605
7	60000	12182	60000	3606	11251	57082	735	3545	40605
8	60000	12293	60000	10247	11140	57082	5477	3537	40605
9	60000	12293	60000	17321	11345	57082	2245	3471	40605
10	60000	12293	60000	6481	11263	57082	18708	3678	40605
11	51381	12271	60000	794	10777	57082	60000	3679	40605
12	34641	12197	60000	742	10264	56582	60000	3715	47787
13	38884	12143	60000	1549	9899	56582	9798	3700	47787
14	60000	12143	60000	675	9432	56582	30984	3727	47787
15	60000	12143	60000	133	8855	56582	60000	3775	49468
16	60000	12143	60000	837	8472	56582	60000	3929	51497
17	52440	12131	60000	490	8068	56582	54772	4166	52057
18	13964	11936	60000	7183	7884	55114	5292	4204	52057
19	11314	11815	60000	1073	7539	53887	23238	4454	52057
20	57446	11809	60000	2510	7278	52685	19339	4674	52057
21	14283	11622	59193	10	7046	52685	22361	4826	52057
22	1187	11127	57755	160	6650	52685	60000	5136	52685
23	10392	10912	57446	53	6377	52685	60000	5509	53887
24	10488	10716	57446	346	6105	52685	1000	5618	53887
25	53666	10783	57446	112	5743	52685	3674	5606	53887
26	22627	10686	57446	193	5388	52057	6928	5573	53887
27	775	10375	57446	10	4892	51497	18330	5579	53887
28	56480	10657	57446	30	4498	49468	245	5405	53887
29	25000	10554	57082	99	4189	48990	45	5179	53887
30	48990	10544	57082	39	3869	47787	173	5034	53887
31				4266	3816	47787			
Limits	N/A	1000	5000	N/A	1000	5000	N/A	1000	5000

# **Appendix II: Inflow and Infiltration Report**

### **Condition (19)**

The permit holder shall take reasonable steps to investigate ways and means of minimizing infiltration and stormwater ingress into the sewerage system and provide the Manager, Environmental Regulation, Wellington Regional Council, with an annual report by 31 July on progress.

### **Inflow and Infiltration Report**

A variety of mitigation measures have been undertaken to reduce Inflow and Infiltration (I&I) and to contain wastewater within the reticulated wastewater network. This work aims to reduce the demand on the Seaview Wastewater Treatment Plant (WWTP) and to also improve waterway health. The catchment for Seaview WWTP includes both Hutt City Council (HCC) and Upper Hutt City Council (UHCC) areas. Details of works undertaken have been provided below for each council area.

### **Hutt City Council and Upper Hutt City Council**

#### **Inflow Surveys**

Inflow Survey work in the Hutt Valley area is undertaken by the HCC Drainage Team with various catchments completed over many years. Figure 1 below shows the catchments in progress in blue and the catchment planned for commencement in 2023-2024 in red.

The Belmont catchment is currently in progress. The various catchments shown in green have all previously had an inflow survey completed over the last 20 years by HCC.

In addition to works completed by HCC, the Drainage Investigation Team at Wellington Water also completed smoke/dye testing and CCTV inspections for both wastewater and stormwater assets. The investigations were able to identify private and public faults. The inspections completed for HCC areas focused on Waiwhetu, Fairfield and Naenae.



Figure 1 - Inflow Survey Project Locations for Seaview WWTP catchment

Flow Monitoring and Rain Gauge Monitoring

There are 6 flow and 27 overflow monitoring sites and one site which measures both within Hutt City and Upper Hutt City catchment area. Figure 2 below shows the monitoring sites managed under the long-term monitoring contract and also from the SCADA system.

Another 17 rainfall gauges are located across the Hutt Valley catchment, monitoring data is used to understand network performance and the extent of inflow and infiltration in various catchments where possible. This data also enables the investigation of network issues and the maintenance of hydraulic models.

Sensor Id	Location	Туре	Purpose
			Overflow
HEATH	9 Heath Street	Level sensor	monitoring
			Overflow
FRASER	54 Fraser Street	Level sensor	monitoring
			Overflow
HYDE LTOF	29 Hyde Street	Level sensor	monitoring
			Overflow
ROWE	21 Rowe Parade	Level sensor	monitoring
			Overflow
Rossiter Bifurcation	53 Rossiter Avenue	Level sensor	monitoring
			Overflow
Black Creek	95 Main Road	Level sensor	monitoring
			Overflow
UHCC_WW003440	14 Somme Road	Level sensor	monitoring
			Overflow
Howard Road	81 Howard Road	Level sensor	monitoring
			Overflow
HCC_WW011820	93 Hutt Road	Level sensor	monitoring
			Overflow
HCC_WW011257	465 Jackson Street	Level sensor	monitoring
			Overflow
HCC_WW009288	520 Riverside Drive	Level sensor	monitoring
			Overflow
HCC-WWPS417	445 Marine Drive	Level sensor	monitoring
			Overflow
HCC-WWPS404	3 Bauchop Road	Level sensor	monitoring
			Overflow
HCC-WWPS418	24 Matai Street	Level sensor	monitoring
			Overflow
HCC-WWPS432	25 Pukatea Street	Level sensor	monitoring
			Overflow
HCC-WWPS421	75 Marine Parade	Level sensor	monitoring
			Overflow
HCC-WWPS422	7 Rossiter Avenue	Level sensor	monitoring
			Overflow
HCC-WWPS423	123 Marine Drive	Level sensor	monitoring

#### Table 1 - Monitors of the network

			Overflow
HCC-WWPS409	82 Woburn Road	Level sensor	monitoring
			Overflow
UHCC_WW000321	540 Main Road North	Level sensor	monitoring
			Overflow
HCC-WWPS425	21 Titiro Moana Road	Level sensor	monitoring
			Overflow
HCC-WWPS426	75 Totara Crescent	Level sensor	monitoring
			Overflow
HCC-WWPS427	45 Victoria Street	Level sensor	monitoring
			Overflow
HCC-WWPS429	2/10 Waitui Crescent	Level sensor	monitoring
			Overflow
HCC-WWPS430	1 Kereru Road	Level sensor	monitoring
			Overflow
HCC-WWPS431	22 Wood Street	Level sensor	monitoring
			Overflow
PS453	16 Mckay Street	Level sensor	monitoring
Moohan	1 Moohan Street	Flow meter	Flow monitoring
TELECOM	75 Main Road	Flow meter	Flow monitoring
PARENGA	110 Wood Street	Flow meter	Flow monitoring
MAIN	1 Stanley Street	Flow meter	Flow monitoring
GIBB0042	34 Gibbons Street	Flow meter	Flow monitoring
East0095	410 Eastern Hutt Road	Flow meter	Flow monitoring
Phms0005	2 Field Street	Flow meter	Flow monitoring
RIVER0098SM	Willow Grove	Flow meter	Flow monitoring
HVMS 006SM	Fergusson Drive	Flow meter	Flow monitoring
Stokes Valley DFM	434 Eastern Hutt Road	Flow meter	Flow monitoring
Melling DFM	26 Blue Mountains Road	Flow meter	Flow monitoring
Wakefield DFM	94 Wakefield Street	Flow meter	Flow monitoring
SEDDON ST GAUGING	8 Seddon Street	Flow meter	Flow monitoring
HCC_WW010638	163 Randwick Road	Flow meter	Flow monitoring
Akatarawa River at	1029C Akatarawa Road,	Rainfall	
Cemetery	Upper Hutt	gauge	Rainfall gauging
Hutt River at Birch	210 Knights Road, Lower	Rainfall	
Lane	Hutt	gauge	Rainfall gauging
Hutt River at			
Haywards Hill	10 Haywards Hill Road,	Rainfall	
Reservoir	Lower Hutt	gauge	Rainfall gauging
Hutt River at Mabey	4/66 Mabey Road, Lower	Rainfall	
Road Depot	Hutt	gauge	Rainfall gauging
Hutt River at Regent		Rainfall	
Street	2/2A Udy Street, Lower Hutt	gauge	Rainfall gauging
Hutt River at	32 Ronald Scott Grove,	Rainfall	
Riverstone Terrace	Upper Hutt	gauge	Rainfall gauging

Hutt River at Savage		Rainfall	
Park	29 Logan Street, Upper Hutt	gauge	Rainfall gauging
Hutt River at		Rainfall	
Shandon Golf Club	Shandon Golf Club	gauge	Rainfall gauging
Hutt River at Te		Rainfall	
Marua	Te Marua	gauge	Rainfall gauging
Korokoro Stream at		Rainfall	
Belmont Trig	Belmont Trig	gauge	Rainfall gauging
Mangaroa River at			
Maymorn Pump	1160 Maymorn Road, Upper	Rainfall	
Station	Hutt	gauge	Rainfall gauging
Mangaroa River at			
Tasman Vaccine		Rainfall	
Limited	Tasman Vaccine Limited	gauge	Rainfall gauging
		Rainfall	
NRFA at Belmont	Belmont	gauge	Rainfall gauging
Orongorongo River at		Rainfall	
Orongo Swamp	Orongo Swamp	gauge	Rainfall gauging
Pinehaven Stream at	42 Wyndham Road, Upper	Rainfall	
Pinehaven Reservoir	Hutt	gauge	Rainfall gauging
Waiwhetu Stream at	15 Wareham Place, Lower	Rainfall	
Seaview WWTP	Hutt	gauge	Rainfall gauging
Wainuimata River at	3 Reservoir Road, Lower	Rainfall	
Wainui Reservoir	Hutt	gauge	Rainfall gauging



Figure 2- Monitors location Seaview catchment

#### **Condition Assessments**

Condition Assessment involves using closed-circuit television (CCTV) footage or other inspection techniques of pipe networks to identify faults, determine the condition of assets, and inform repair and renewal programs.

Condition assessments completed as of June 2023 are shown in Figure 3 below. The primary inspection techniques were CCTV and laser profiling for wastewater pipes and CCTV for stormwater pipe assets. The western hill culvert in Udy Street was successfully inspected after some attempts, the condition assessment results will provide insights and enable engineering to propose options to reduce the risk of failure. Sewer inspection in Jackson Street was undertaken to inform an opportunistic renewal to combine stormwater and wastewater. Inspection in Belmont is still underway to remediate the risk of sewer overflow toward the reserve. Furthermore, other proactive inspections have been carried out in Panorama Grove and Marine Drive to understand the condition of aged assets. In the Upper Hutt inspection of the sewer and stormwater will help to determine the solutions to resolve flooding issues.



Figure 3 - Map of CCTV of UHCC and HCC Wastewater and Stormwater Mains undertaken as of June 2023

#### **Wastewater Modelling**

The Hutt Valley model was recently calibrated and is in the final stages of system performance. The Wainuiomata Catchment Model was also updated in 2020. The integrated trunk model which incorporates both HCC and UHCC Trunk Networks has also recently been updated.

#### **Stormwater and Wastewater Capital Projects**

The following table provides a summary of planned capital projects for wastewater and stormwater assets that were undertaken in 2023-2024 or are scheduled for 2024-2025. The projects are proposed and subject to approval by council. Ongoing operational work such as investigations and reactive maintenance and renewals are also carried out in addition to the planned work listed below. Some projects in the table below are noted in both columns as the project is delivered over multiple years or ongoing programmes of work.

Project	Туре	Reference
Naenae Sewer Renewals - Wilkie	Wastewater	
Swanson & Grierson Seddon St	Network Renewals	
Wellesley College stream inlet and outlet erosion protection	Erosion protection	
Dowse Dr Stormwater	Stormwater	
Improvement	Network Renewals	
Avaion www Renewals Programme Stage 1	Network Renewals	
Wainui Gardiner Gr Reid Rd Petrie	Wastewater	
St wright St WW Renewals	Network Renewals	
Martin Street WW Renewals	Wastewater	
	INCLIVOIR IVEILEWAIS	

#### Table 2- HCC and UHCC Capital Projects for Stormwater and Wastewater 23-24

Avalon WW Renewals Programme	Wastewater	
Stage 1	Network Renewals	
Epuni and Woburn WW Network	Wastewater	
Upgrades	Network Renewals	

#### Table 3 - HCC and UHCC Capital Projects for Stormwater and Wastewater 24-25

Project	Туре
Wainuiomata Sewer Renewals - Stage 3 (Wood St, Peel Place, Willow Grove & Herbert St)	Wastewater network renewals
Avalon WW Renewals Programme Stage 2	Wastewater network renewals
Logan St Wastewater Renewal	Wastewater network renewals
HCC Bell Road works	Wastewater network renewals
Naenae Sewer Renewals - Wilkie Swanson & Grierson Seddon St	Wastewater network renewals
Trunk Type B Network Development - Barber Grove to Wastewater Treatment Plant Duplication	Wastewater network upgrades



Figure 4- Status of capital projects

# **Appendix III. Trade Waste Report**

Appendix IV: Seaview Wastewater Treatment Plant Assessment of Effects of Overflow Discharges to Waiwhetu Stream.

# Appendix V: Photographs of Discharge to Waiwhetu Stream April, May, June (2024)

#### April Discharge

Date	Seaview WWTP Effluent	Upstream of Port Road Bridge	Waiwhetu Pa Site	Downstream of Bell Road Bridge
12/04/2024				
13/04/2024				
14/04/2024				

#### May Discharges

Date	Seaview WWTP Effluent	Upstream of Port Road Bridge	Waiwhetu Pa Site	Downstream of Bell Road Bridge
02/05/2024				
03/05/2024				
04/05/2024				
22/05/2024				
23/05/2024				
24/05/2024				

# Appendix VI: Record on Noncompliance notices issued

Month Issued	Facility	Non-compliance Notice	Description
04/10/2023	Seaview WWTP	Please Explain Letter	PX Letter issued by GWRC seeking explanation of non-compliant effluent quality under condition 9(c) of WGN050359[24539] as of 30/09/2023, Seaview WWTP became non- compliant with condition 9 (c) of the RC with faecal coliforms exceeding the percentile limit of 5000 cfu /100ml
08/11/2023	Seaview WWTP	Formal Warning	<ul> <li>Formal Warning for Dry Weather Discharges to Waiwhetu Stream on five occasions between July 2022 and 14 March 2023 received on 08/11/2023. GWRC issued a formal warning alerting WWL to the breaches of the Resource Management Act 1991 (RMA) that WWL are responsible for. GWRC have considered the response from Wellington Water to these discharges and allowed time for improvements to be made. Dates in detail: <ul> <li>17 July 2022, there was a 36-minute discharge to the Waiwhetu Stream due to instrumentation failure within the plant.</li> <li>23 November 2022, there was a 3- minute discharge to the Waiwhetu stream.</li> <li>23 February 2023 there was an 11- minute dry weather discharge due to a power outage</li> <li>2 March 2023 there was an 8-minute dry weather discharge due to electrical failure within the plant and undisinfected effluent was discharged into the Waiwhetu stream.</li> <li>14 March 2023 there was a 7-minute dry weather discharge due to power outage and undisinfected effluent was discharged into the Waiwhetu stream.</li> </ul> </li> <li>Note: Four of the dry weather discharges (all except 17 July 2022) occurred when effluent quality was noncompliant under WGN050359 for faecal coliforms geometric means and 80th percentile.</li> </ul>
15/11/2023	Seaview WWTP	Infringement Notice I952 & I953 and for non-compliant effluent quality	GWRC issued Infringement Notice 1952 & 1953 and for non-compliant effluent quality from the Seaview Wastewater Treatment Plant (SWWTP). WWL have been charged \$750 for each of the infringement notice.

24/11/2023	Seaview WWTP	Please Explain Letter	GWRC issued a PX letter in relation to an investigation into offensive and objectionable odour from Seaview WWTP beyond the boundary.
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	<b>11008</b> - Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 1 November 2023. Date: 1 November 2023 Time: 16:37
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	<b>11009</b> , GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 9 November 2023. Date: 9 November 2023 Time: 08:46
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1010, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 10 November 2023. Date: 10 November 2023 Time: 19:18
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1011, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 18 November 2023. Date: 18 November 2023 Time: 13:25
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1012, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 20 November 2023. Date: 20 November 2023 Time: 19:00
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1013, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 21 November 2023. Date: 21 November 2023 Time: 19:45
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1014, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the

			property on 25 November 2023. Date: 25 November 2023 Time: 15:01
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1015, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 26 November 2023. Date: 26 November 2023 Time: 11:58
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1016, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on29 November 2023. Date: 29 November 2023 Time: 15:30
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1017, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 01 December 2023. Date: 1 December 2023 Time: 12:28
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1019, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 04 December 2023. Date: 4 December 2023 Time: 10:04
19/12/2023	Seaview WWTP	Infringement notice -For Breaches of RMA S15(1)(c)	I 1020, GWRC issued infringement notice, Offence: WWL discharged offensive and objectionable odour from Seaview Wastewater Treatment Plant – a trade premise, to air, beyond the boundary of the property on 11 December 2023. Date: 11 December 2023 Time: 11:00
19/12/2023	Seaview WWTP	Infringement notice – For Breaches of Abatement Notice A956	I <b>1021,</b> GWRC issued infringement notice, Offence: On the 1 November 2023, WWL permitted the discharge of objectionable and offensive odour beyond the boundary of Seaview Wastewater Treatment Plant. These discharges contravene abatement notice A956, issued to WWL on 14 June 2021. Date: 1 November 2023 Time: 16:37
19/12/2023	Seaview WWTP	Infringement notice – For Breaches of	I 1022, GWRC issued infringement notice, Offence: On 9 November 2023, WWL permitted the discharge of objectionable and offensive odour beyond the boundary of

		Abatement Notice A956	Seaview Wastewater Treatment Plant. These discharges contravene abatement notice A956, issued to WWL on 14 June 2021. Date: 9 November 2023 Time: 08:46
19/12/2023	Seaview WWTP	Infringement notice – For Breaches of Abatement Notice A956	I 1023, GWRC issued infringement notice, Offence: On 10 November 2023, WWL permitted the discharge of objectionable and offensive odour beyond the boundary of Seaview Wastewater Treatment Plant. These discharges contravene abatement notice A956, issued to WWL on 14 June 2021. Date: 10 November 2023 Time: 19:18
19/12/2023	Seaview WWTP	Infringement notice – For Breaches of Abatement Notice A956	I 1024, GWRC issued infringement notice∖, Offence: On 18 November 2023, WWL permitted the discharge of objectionable and offensive odour beyond the boundary of Seaview Wastewater Treatment Plant. These discharges contravene abatement notice A956, issued to WWL on 14 June 2021. Date: 18 November 2023 Time: 13:25
19/12/2023	Seaview WWTP	Infringement notice – For Breaches of Abatement Notice A956	I 1025, GWRC issued infringement notice, Offence: On 20 November 2023, WWL permitted the discharge of objectionable and offensive odour beyond the boundary of Seaview Wastewater Treatment Plant. These discharges contravene abatement notice A956, issued to WWL on 14 June 2021.Date: 20 November 2023 Time: 19:00
19/12/2023	Seaview WWTP	Infringement notice – For Breaches of Abatement Notice A956	I 1026, GWRC issued infringement notice, Offence: On 21 November 2023, WWL permitted the discharge of objectionable and offensive odour beyond the boundary of Seaview Wastewater Treatment Plant. These discharges contravene abatement notice A956, issued to WWL on 14 June 2021. Date: 21 November 2023 Time: 19:45
19/12/2023	Seaview WWTP	Infringement notice – For Breaches of Abatement Notice A956	I 1027, GWRC issued infringement notice, Offence: On 25 November 2023, WWL permitted the discharge of objectionable and offensive odour beyond the boundary of Seaview Wastewater Treatment Plant. These discharges contravene abatement notice A956, issued to WWL on 14 June 2021. Date: 25 November 2023 Time: 15:01
19/12/2023	Seaview WWTP	Infringement notice – For Breaches of Abatement Notice A956	I 1028, GWRC issued infringement notice, Offence: On 26 November 2023, WWL permitted the discharge of objectionable and offensive odour beyond the boundary of Seaview Wastewater Treatment Plant. These discharges contravene abatement notice A956,

			issued to WWL on 14 June 2021. Date: 26
			November 2023 Time: 11:58
19/12/2023	Seaview WWTP	Infringement	I 1029, GWRC issued infringement notice,
		notice – For	Offence: On 29 November 2023, WWL
		Breaches of	permitted the discharge of objectionable and
		Abatement	offensive odour beyond the boundary of
		Notice A956	Seaview Wastewater Treatment Plant. These
			discharges contravene abatement notice A956,
			issued to WWL on 14 June 2021. Date: 29
			November 2023 Time: 15:30
19/12/2023	Seaview WWTP	Infringement	I 1030, GWRC issued infringement notice,
		notice – For	Offence: On 01 December 2023, WWL
		Breaches of	permitted the discharge of objectionable and
		Abatement	offensive odour beyond the boundary of
		Notice A956	Seaview Wastewater Treatment Plant. These
			discharges contravene abatement notice A956,
			December 2022 Time: 12:28
10/12/2022		Infringoment	L1022 GWPC issued infringement notice
19/12/2023	Seaview wwwir	notice - For	Offence: On 04 December 2023, W/W/
		Breaches of	permitted the discharge of objectionable and
		Abatement	offensive odour beyond the boundary of
		Notice A956	Seaview Wastewater Treatment Plant. These
			discharges contravene abatement notice A956.
			issued to WWL on 14 June 2021. Date: 04
			December 2023 Time: 10:04
19/12/2023	Seaview WWTP	Infringement	I 1033, GWRC issued infringement notice,
		notice – For	Offence: On 11 December 2023, WWL
		Breaches of	permitted the discharge of objectionable and
		Abatement	offensive odour beyond the boundary of
		Notice A956	Seaview Wastewater Treatment Plant. These
			discharges contravene abatement notice A956,
			issued to WWL on 14 June 2021. Date: 11
			December 2023 Time: 10:04
13/03/2024	Seaview WWTP	Please explain	GWRC issued a please explain letter requesting
		Letter	an explanation for the discharges of
			undisinfected wastewater in relation to the
			power outages between $12.22am$ to $12.40am$ ,
			March 2024 from the Seaview Wastewater
			Treatment Plant to the Coastal Marine Area
			outfall at Bluff Point.
03/05/2024	Seaview WWTP	2 Formal	GWRC issued a Formal warning for
		Warnings	Undisinfected Discharges to Coastal Marine
			Area on 31 January 2024 and 08 March 2024.
			On 09/04/2024, WWL provided a response to
			the PX issued by GWRC. The information WWL
			provided was considered in reaching a decision
			on the outcome of the incidents and GWRC
			decided to issue WWL with two (2) formal

			<u>warnings alerting WWL to the</u> breaches of the Resource Management Act 1991 (RMA)
10/05/2024	Seaview WWTP	Please explain Letter	GWRC issued a PX letter seeking explanation of events around the continued discharge of non-compliant effluent quality under condition 9(c) of WGN050359 [24539] starting on 30 September 2023 from Seaview Wastewater Treatment Plant (Seaview WWTP).