

# Moa Point Wastewater Treatment Plant

Annual Resource Consents Report (2024/2025)



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# Control Sheet

**Document Title:** Moa Point Wastewater Treatment Plant Annual Resource Consents 2024/2025

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**Approved by:** Blair Johnson

## Document Control Register

Version	Status	Date	Details of Revision
0	Draft	28/07/2025	First version of report for review
1	Final	31/07/2024	Approved, Head of Wastewater Contracts

# Executive Summary

This report has been prepared on behalf of the Wellington City Council (WCC) for compliance with the following resource consents:

WGN080003 [31505]

This discharge permit allows WCC to continuously discharge up to 260,000 cubic meters per day of secondary treated and disinfected wastewater from the Moa Point Wastewater Treatment Plant into the coastal marine area via an existing submarine outfall. The coastal marine area is designated between map references NZMS 260: R27; 2660742.5982398 and NZMS 260: R27; 2660710.5982311.

WGN080003 [35047]

This coastal permit allows WCC to occasionally 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 coastal marine area is designated between map references NZMS 260: R27; 2660742.5982398 and NZMS 260: R27; 2660710.5982311.

WGN080003 [26182]

This coastal permit allows WCC to occupy the foreshore and seabed of the coastal marine area with an existing submarine outfall pipeline. The coastal marine area is designated between map references NZMS 260: R27; 2660742.5982398 and NZMS 260: R27; 2660710.5982311.

WGN080003 [26183]

This discharge permit allows WCC to continuously discharge contaminants (including odour) to air from the Moa Point Wastewater Treatment Plan ventilation system. The Moa Point WWTP is located at map reference NZMS 260: R27; 2661614.5984078.

WGN960094 [1471]

In general, this discharge permit outlines the conditions relating air discharge from the operation Moa Point inlet pumping station (IPS).

The report will cover the period from 1 July 2024 to 30 June 2025.

# Table of Contents

<b>Control Sheet</b> .....	<b>2</b>
<b>Executive Summary</b> .....	<b>3</b>
<b>Resource Consent</b> .....	<b>6</b>
WGN080003 [31505].....	6
WGN980003 [35047].....	6
WGN980003 [26182].....	6
WGN980003 [26183].....	6
WGN960094 [1471].....	6
<b>WGN080003 [31505]</b> .....	<b>7</b>
Condition (5).....	7
Condition (6).....	7
Condition (10).....	9
Condition (11).....	11
Condition (13).....	12
Condition (19).....	12
Condition (20).....	13
Section (b) .....	15
Section (c).....	17
Section (d) .....	18
Section (e) .....	18
Section (f) .....	18
Section (g).....	19
<b>WGN080003 [35047]</b> .....	<b>20</b>
Condition (8).....	20
Condition (10).....	22
Condition (13).....	24
Condition (16).....	25
Condition (19).....	26
Section (a).....	26
Section (b) .....	26
Section (c & d) .....	28
Section (e) .....	28
Section (f) .....	28

Section (g).....	28
<b>WGN 080003 [26182] .....</b>	<b>30</b>
Condition (3).....	30
<b>WGN 080003 [26183] .....</b>	<b>30</b>
Condition (7).....	30
Condition (8).....	31
Condition (9).....	32
Condition (10).....	33
Condition (14).....	33
Section (a).....	33
Section (b) .....	34
Section (c).....	35
Section (d) .....	35
Section (e) .....	35
Section (f).....	35
Section (g).....	36
Section (h) .....	36
<b>WGN9600094 [1471] .....</b>	<b>37</b>
<b>Appendix I: Daily Effluent Results .....</b>	<b>39</b>
<b>Appendix II: Inflow and Infiltration Report.....</b>	<b>41</b>
<b>Appendix III: Non-compliance notices .....</b>	<b>49</b>
<b>Appendix IV: Outfall Pipeline Assessments .....</b>	<b>50</b>
<b>Appendix V: Ambient Microbe Monitoring.....</b>	<b>51</b>
<b>Appendix VI: Smoke Test Report.....</b>	<b>52</b>
<b>Appendix VIII: Shoreline Sample Results .....</b>	<b>54</b>

# Resource Consent

## 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.

The following outlines the conditions of this resource consent required for this report.

## WGN980003 [35047]

In addition to the above resource consent, the discharge from the Moa Point WWTP is governed by another resource consent under the Greater Wellington Regional Council 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 when the quantity of wastewater arriving at the Moa Point Wastewater Treatment Plant exceeds 3000 litres per second.

The following will also outline the conditions of this resource consent required for this report.

## WGN980003 [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.

The following will also outline the conditions of this resource consent required for this report.

## WGN980003 [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 Moa Point Wastewater Treatment Plant ventilation system.

## WGN960094 [1471]

Air discharge from the Inlet Pumping Station (IPS) is governed by the resource consent under the Greater Wellington Regional Council consent file number WGN960094 [1471]. In general, WCC is allowed to continuously discharge contaminants to air through the IPS ventilation system.

The following will also outline the conditions of this resource consent required for this report.

# WGN080003 [31505]

## Condition (5)

The permit holder shall continue to engage with the Moa Point Community Liaison Group (CLG) established and maintained under the Wellington City Council destination.

A summary of each meeting that includes, but is not limited to, issues discussed, actions agreed upon and any follow-up on agreed actions from previous meetings shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council within 10 working days of each CLG meeting.

A CLG meeting was held on 16 April 2025. The minutes of the meeting were circulated to the group and shared to the Wellington Water website for public perusal.

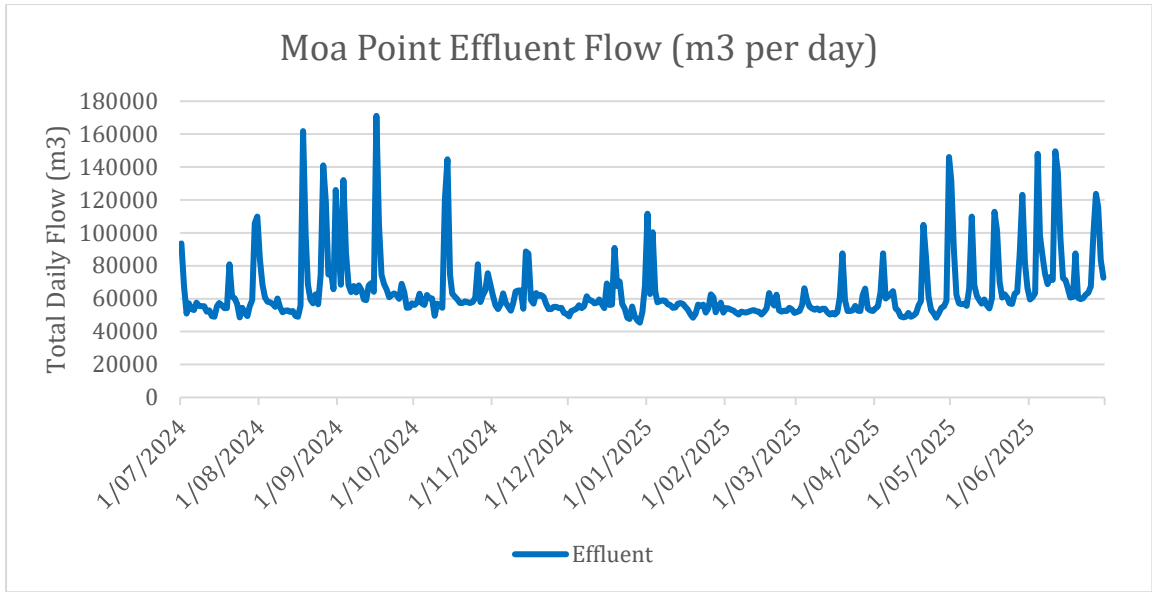
## Condition (6)

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 effluent flow records for 2024/25 are shown in Figure 1: Moa Point WWTP Effluent Discharge Volume.

The pumping capacity of the Inlet Pumping Station was reduced to half from October 2024 to December 2024 to enable the final phase of the riser pipe renewal project to be completed.

The full treatment capacity of the treatment plant was reduced to approximately 2,200 L/s (from 3000 L/s that the consent requires) in two separate periods during 2024/25. This was due to the planned refurbishments of two of the three clarifiers after the first refurbishment occurred during the 2022/23 reporting period. The full treatment capacity in Moa Point was returned to 3000 L/s on 14th July 2025 after the Clarifier #1 project was completed.



**Figure 1: Moa Point WWTP Influent and Effluent Discharge Volume**

The daily average and 95<sup>th</sup> percentile flow rates for effluent are displayed below:

	<b>Average</b>	<b>95<sup>th</sup> percentile</b>
<b>Effluent (m<sup>3</sup>)</b>	64,381	111,177

## Condition (10)

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

(a) cBOD<sub>5</sub>

The geometric mean of 90 consecutive daily sampling results shall not exceed 20g/m<sup>3</sup> and no more than 10% of 90 consecutive sample results shall exceed 45g/m<sup>3</sup>.

(b) 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 sample results 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 running geometric mean and ninetieth percentile calculated following each sampling event using the preceding 90 consecutive sample results.

### Section (a)

Below is a summary of the geometric mean and 90<sup>th</sup> percentile for the Carbonaceous Biological Oxygen Demand. The plant was non-compliant for the 90<sup>th</sup> percentile limit for a short period during the reporting period.

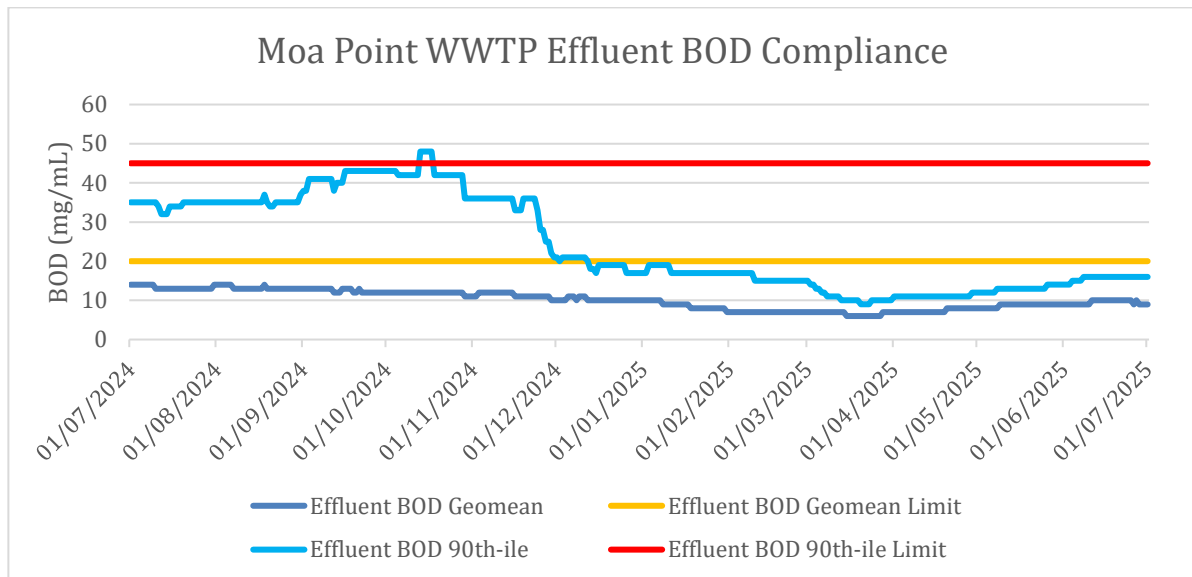


Figure 2: Effluent Carbonaceous Biological Oxygen Demand Results Geometric Mean and 90th Percentile

### Section (b)

Below is a summary of the geometric mean and ninetieth percentile for the Suspended Solids. The plant was non-compliant for both the geomean and the 90th percentile limits during the reporting period.

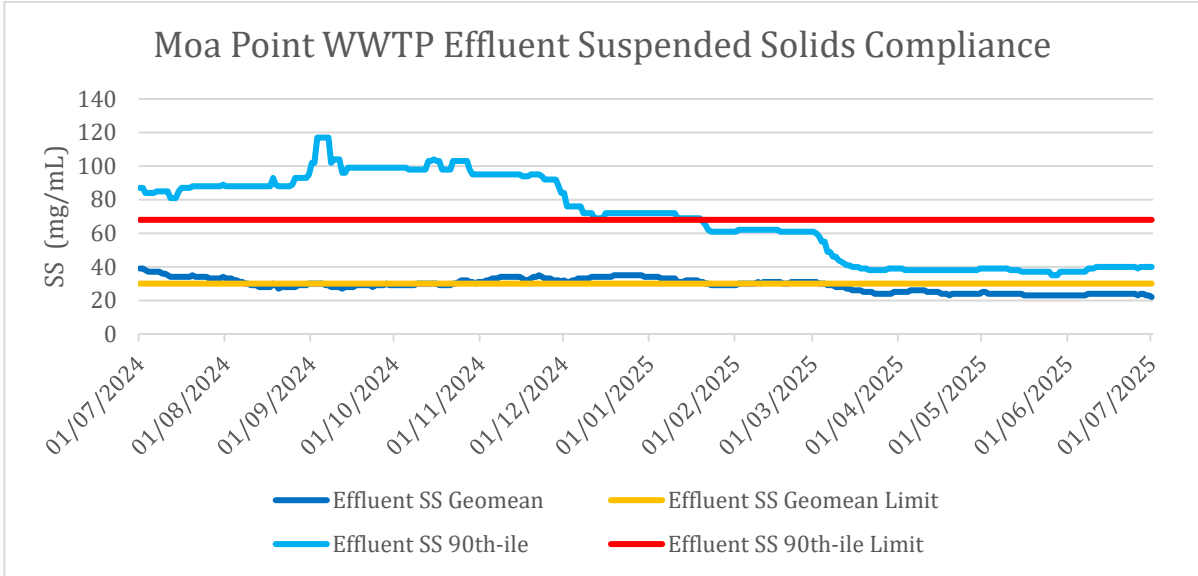


Figure 3: Effluent Suspended Solids Results Geometric Mean and 90th Percentile

Section (c)

Below is a summary of the geometric mean and 90<sup>th</sup> percentile for Faecal Coliforms. The plant was non-compliant in the reporting period. Please note the faecal coliform 90<sup>th</sup> percentile peak is not displayed in the graph below due to graph scaling. The maximum 90<sup>th</sup> percentile recorded for the 24/25 consent period was 57,550 cfu/100mL. The plant finished the reporting period below the compliance limit at 930 cfu/100mL.

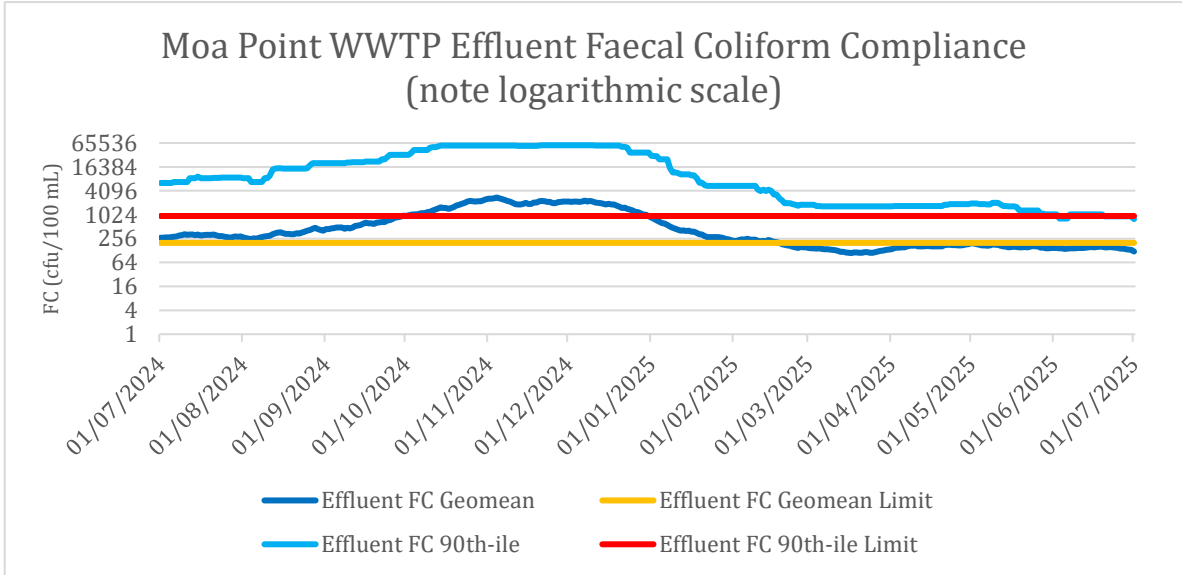


Figure 4: Effluent Faecal Coliform Geometric Mean, and 90th Percentile

A graphical representation of the daily effluent results from July 2024 to June 2025 can be found in Appendix I: Daily Effluent Results.

## Condition (11)

The permit holder shall at least once every three months obtain a sample of the treated wastewater discharged from the treatment plant to the outfall. This sample shall be analyzed for and not exceed the following:

Total arsenic	0.26g/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>

The sample shall also be analysed for:

pH  
Ammoniacal Nitrogen  
Oil and Grease

Table 1 below is a summary of the analytical results for the quarterly effluent samples.

Compound	Unit	Limit	24/07/2024	18/10/2024	22/01/2025	8/04/2025
<b>Total Arsenic</b>	<b>g/m<sup>3</sup></b>	<b>0.26</b>	0.002	0.002	<0.002	0.002
<b>Total Cadmium</b>	<b>g/m<sup>3</sup></b>	<b>0.08</b>	0.001	0.001	<0.001	0.001
<b>Total Chromium</b>	<b>g/m<sup>3</sup></b>	<b>0.48</b>	0.001	0.001	<0.001	0.001
<b>Total Copper</b>	<b>g/m<sup>3</sup></b>	<b>0.14</b>	0.008	0.005	0.005	0.007
<b>Total Lead</b>	<b>g/m<sup>3</sup></b>	<b>0.48</b>	0.001	0.001	<0.001	0.001
<b>Total Mercury</b>	<b>g/m<sup>3</sup></b>	<b>0.01</b>	0.001	0.001	<0.001	0.001
<b>Total Nickel</b>	<b>g/m<sup>3</sup></b>	<b>0.77</b>	0.001	0.001	<0.001	0.001
<b>Total Zinc</b>	<b>g/m<sup>3</sup></b>	<b>1.65</b>	0.020	0.022	0.033	0.0299
<b>Phenol</b>	<b>g/m<sup>3</sup></b>	<b>0.80</b>	0.01	0.01	<0.01	0.01
<b>Cyanide as CN</b>	<b>g/m<sup>3</sup></b>	<b>0.10</b>	0.005	0.005	0.019	0.005
<b>pH</b>	- -	--	6.7	8	7	7.1
<b>Ammoniacal Nitrogen</b>	<b>g/m<sup>3</sup></b>	--	20.5	21.8	15.9	12.3
<b>Oil and Grease</b>	<b>g/m<sup>3</sup></b>	--	16	4	<4	8

**Table 1: Quarterly Effluent Sample Results – Condition 11 Parameters**

All analytical results for the quarterly effluent samples are well below the limits set in the resource consent. This is because of the lack of heavy industry in Wellington City. The analytical data sheets can be made available upon request.

## Condition (13)

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.

Notifications were sent to the regional council if the plant was not able to comply with conditions 10 and 11 of this consent. Furthermore, WWL, Veolia and Greater Wellington Regional Council have regular monthly review meetings to discuss the compliance concerns at Moa Point WWTP.

## Condition (19)

A quarterly monitoring report for each three-month period ending 31 March, 30 June, 30 September 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.

This annual report also intends to comply with this quarterly report requirement for the period April to June 2025. The required information for the conditions listed above can be found in this report.

## Condition (20)

The permit holder shall provide to the Manager, Environmental Regulation, Wellington Regional Council an Annual Assessment and Analysis Report for the period 1 July to 30 June by 31 July each year summarising compliance with the conditions of this permit. This report shall include, but not be limited to the following:

- 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) Comments on compliance with the conditions of this permit;
- d) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this permit;
- e) Any measures that have been undertaken to improve the environmental performance of the wastewater treatment and disposal system;
- f) A copy of any complaints recorded (in accordance with condition 18 of this permit) during the year;
- g) Any other issues considered to be important;

A copy of the report shall be provided to Community Liaison Group, Te Atiawa, Te Runanganui O Taranaki Whanui kit e Upoko o te Ika a Maui, Ngati Toa Rangatira and the Wellington Tenth Trust, if requested.

### Section (a)

- 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;

Table 2 summarises all the treatment plant data monitored from July 2024 to June 2025. The median, minimum and maximum values are tabulated for each parameter.

Parameter	Minimum	Median	90 <sup>th</sup> Percentile	Maximum
Inflow (m <sup>3</sup> /day)	40548	64233	91841	175496
Effluent cBOD (g/m <sup>3</sup> )	3	8	20	197
Effluent SS (g/m <sup>3</sup> )	5	26	66	383
Effluent Faecal Coliform(cfu/100ml)	10	225	17453	60000

**Table 2: Summary of Monitoring Results**

#### **Effluent cBOD<sub>5</sub>:**

The Effluent 90-day rolling cBOD<sub>5</sub> Geometric Mean was compliant with the compliance limit of 20 g/m<sup>3</sup> for the whole reporting period.

The Effluent 90-day rolling cBOD<sub>5</sub> 90<sup>th</sup> percentile was non-compliant with the compliance limit of 45 g/m<sup>3</sup> from 13<sup>th</sup> October 2024 to 17<sup>th</sup> October 2024.

### Effluent Total Suspended Solids (TSS):

The Effluent 90-day rolling TSS Geometric Mean was non-compliant with the compliance limit of 30 g/m<sup>3</sup> from:

- 1<sup>st</sup> July 2024 to 8<sup>th</sup> August 2024
- 7<sup>th</sup> October 2024 to 17<sup>th</sup> October 2024
- 22<sup>nd</sup> October 2024 to 21<sup>st</sup> January 2025
- 6<sup>th</sup> February 2025 to 5<sup>th</sup> March 2025

The Effluent 90-day rolling TSS 90<sup>th</sup> percentile was non-compliant with the compliance limit of 68 g/m<sup>3</sup> from 1<sup>st</sup> July 2024 to 19<sup>th</sup> January 2025.

### Effluent Faecal Coliform:

The Effluent 90-day rolling Faecal Coliform Geometric Mean was non-compliant with the compliance limit of 200 cfu/100 mL from 1<sup>st</sup> July 2024 to 19<sup>th</sup> February 2025.

The Effluent 90-day rolling Faecal Coliform Percentile Limit was non-compliant with the compliance limit of 950 cfu/100 mL from:

- 1<sup>st</sup> July 2024 to 2<sup>nd</sup> June 2025
- 7<sup>th</sup> June 2025 to 19<sup>th</sup> June 2025

The reasons for non-compliance can be found in section (d).

### Assessment of Environmental Effects:

In 2006, the Cawthron Institute was commissioned to predict the dilution and dispersal characteristics from Moa Point WWTP discharges. The most conservative predicted initial dilution that was 95:1 based on a peak flow of 4,000 L/s with a typical dilution of 196:1 that can be achieved within the 100-m mixing radius of the outfall based on predicted 2043 Average Dry Weather Flow of 980 L/s.

Using the dilution data, the predicted concentration on the receiving environment is summarised below:

Parameter	Unit	Wastewater concentration using 90 <sup>th</sup> percentile Effluent Quality Value	Background seawater concentration (cfu/100ml)	Minimum dilution (x-fold)	Predicted concentration after initial dilution
cBOD	g/m <sup>3</sup>	20	5	95	5.21
				196	5.10
Total Suspended Solids (TSS)	g/m <sup>3</sup>	66	5	95	5.70
				196	5.34
Faecal Coliform	cfu/100 mL	17,453	2	95	185.71
				196	91.04

Table 3: Effect of Dilution on the Receiving Environment

Note: The background seawater concentration data for TSS and faecal coliform was taken from Stantec's AEE Report for Moa Point WWTP March 2022. A background concentration of 5 g/m<sup>3</sup> was assumed for cBOD.

The predicted cBOD, TSS and faecal coliform concentration in the receiving environment after initial dilution are low, it is expected that it will not result in any long-term adverse effect in the environment.

As shown in condition (11): Table 1, The heavy metal concentrations in the treated wastewater discharges are compliant as such the effect to the receiving environment is expected to be minor.

As concluded in the Assessment of Environmental Effects Report (AEE) for Moa Point WWTP March 2022, the long ocean outfall and multipoint diffuser will play an important role in mitigating the adverse effects of the reduced treatment capacity and poorer effluent quality by separating the point of discharge from sensitive receptors and ensuring a high level of initial dilution.

Wellington Water also provided an AEE to GWRC for the 2023/24 reporting period.

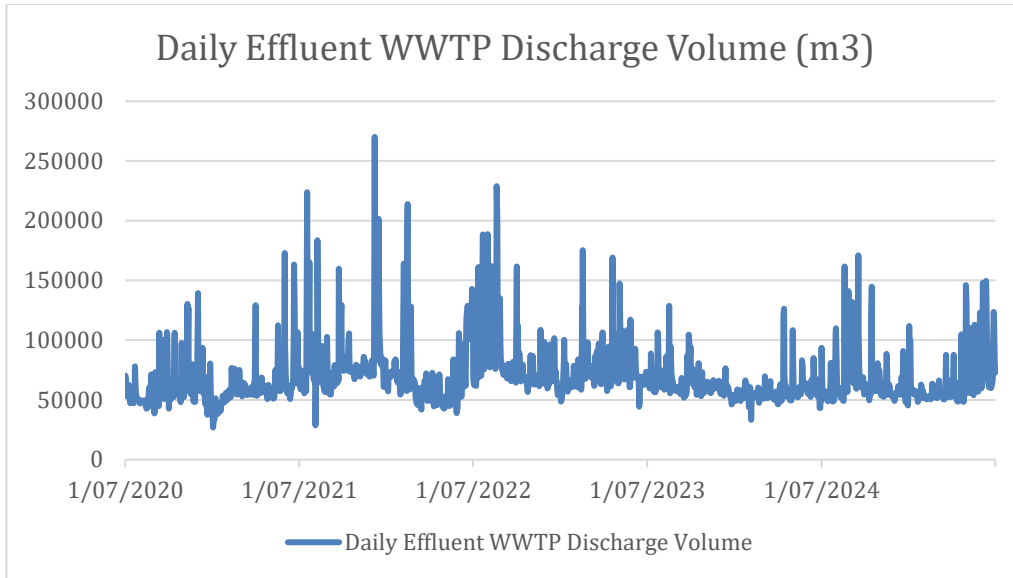
## Section (b)

- b) A comparison of data with previously collected data in order to identify any emerging trends;

A comparison of data was made between 2024/25 reporting period and the previous four (4) years. The following information summarizes that comparison.

### **WWTP Effluent Discharge Volume:**

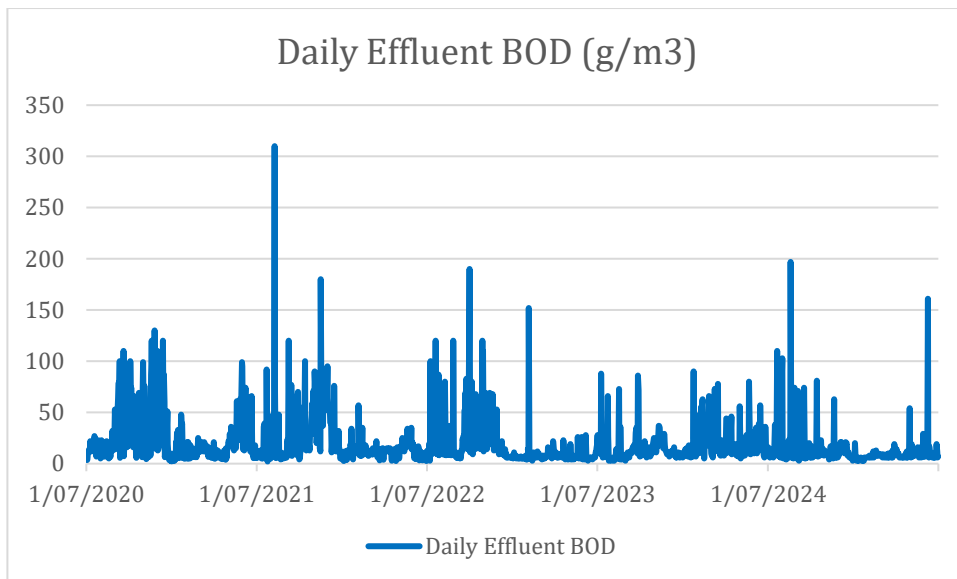
WWTP effluent discharge volume is used to establish a trend. The effluent volumes have been plotted for the last five years. The discharge flow increases during winter season and decreases in summer.



**Figure 5: WWTP Effluent Discharge Volume**

**WWTP Effluent Quality:**

To establish a trend, all daily effluent quality results in the last five years have been used.



**Figure 6: Daily Effluent cBOD Results**

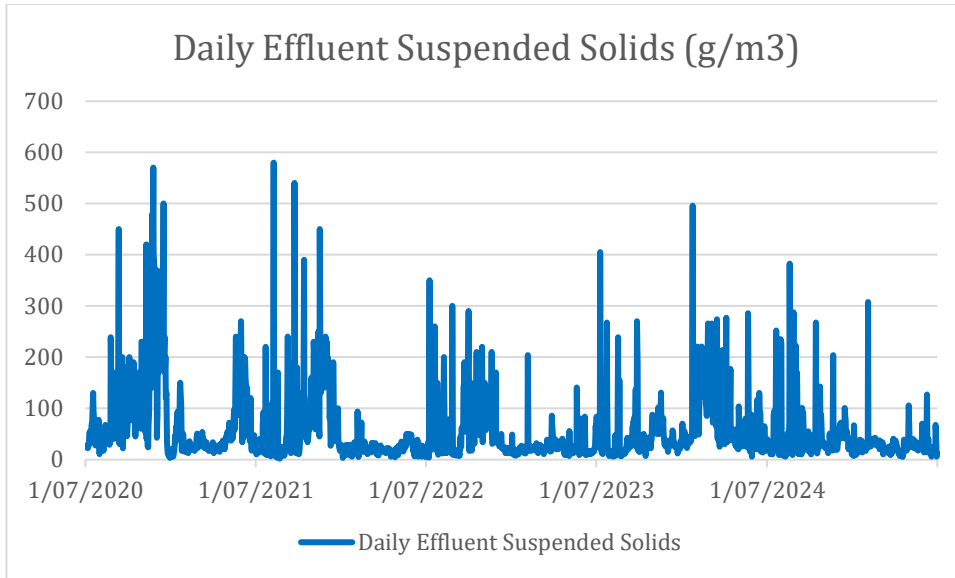


Figure 7: Daily Effluent Suspended Solids Results

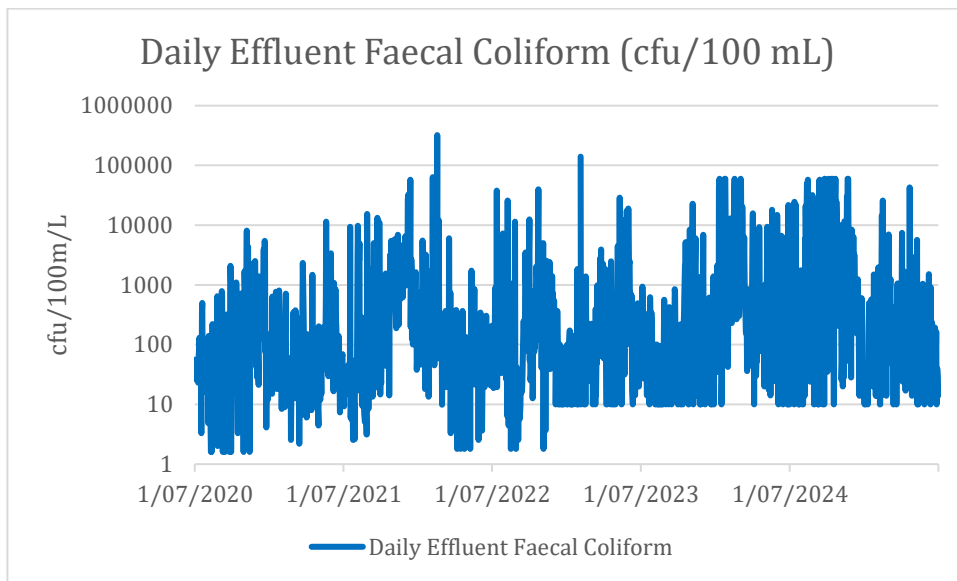


Figure 8: Daily Effluent Faecal Coliform Results

**Section (c)**

c) Comments on compliance with the conditions of this permit;

The plant was unable to consistently meet its effluent quality compliance requirements during the reporting period. Greater Wellington Regional Council issued several non-compliance notices throughout the reporting period relating to effluent quality, these are detailed in Appendix III.

## Section (d)

- d) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this permit;

The non-compliances in the effluent quality can be generally attributed to:

- Extended periods operating with reduced capacity (pumping and treatment) as refurbishment and renewal works were completed on the Inlet Pumping Station and Clarifiers
- Asset failures and ageing equipment
- Difficulty in controlling the treatment process in response to asset failures and change in seasons
- Wet weather events

## Section (e)

- e) Any measures that have been undertaken to improve the environmental performance of the wastewater treatment and disposal system;

A detailed plan to return the plant to effluent compliance has been developed in 2024/25 which defines a programme of activities to effluent compliance, centered around three key areas:

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

The compliance documents a large range of inter-related actions and renewal projects that need to be completed before consistent 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 in draft under review by the relevant stakeholders before final sign off is made, expected to be in early 2025/26.

Works completed during the 2024/25 year include completion of IPS upgrade and renewal and refurbishment of two secondary clarifiers (the second delivered in July 2025).

## Section (f)

- f) A copy of any complaints recorded (in accordance with condition 18 of this permit) during the year;

No discharge related complaints were recorded for the 2024/25 reporting period.

## Section (g)

- g) Any other issues considered to be important;

The project to replace all the riser pipes at the IPS was completed in December 2024. The third and final Clarifier (#1) was refurbished in the second half of the reporting period being brought back into operation in July 2025. These projects strengthen the plant's reliability moving forward.

The next reporting period will see significant construction works take place at the plant including further works to link its operation to the Sludge Minimization Facility (SMF) in advanced stages of construction below the plant. This is a very complex project which is being delivered by Wellington City Council; further information on the project is available on their website.

The plants Ultraviolet Disinfection (UV) system will be fully replaced with physical works expected to begin in December 2025 and finish before the end of the next reporting period. This is also a complex project due to the physical location of the UV unit within the plant and further communications will be released prior to the project commencing.

A project to replace the site's electrical and controls components will commence physical works during the 2025/26 financial year. This will also enhance the site's operational reliability. Further communications will be released prior to the physical works commencing.

Progress continues on design and delivery of other planned renewals at the site including PSTs, screenings handling, aeration system, RAS pumps, instrumentation, and odour treatment. These projects are all designed to enhance the plant's ability to treat wastewater reliably and compliantly.

# WGN080003 [35047]

## Condition (8)

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.

Table 4 below is a summary of the bypass events from the Moa Point WWTP for the 2024/25 reporting period.

Please note that the duration of the discharge is calculated as the difference between the start and end of the discharge and the discharges may be occurring intermittently rather than continuously throughout this period.

There was an increase in discharges to the CMA in the reporting period compared to previous years. This was due to the refurbishment works being undertaken on two of the three secondary clarifiers, over two separate periods. Due to the reduced treatment capacity of the plant, while being down to two operational clarifiers, the plant was unable to meet the consent target of treating 3,000 L/s, therefore any discharge was considered non-compliant. The second Clarifier was completed and brought back into operation on 14 July 2025, shortly after the reporting period end

On 15 November 2024 there was a discharge to Tarakena Bay via the short outfall pipeline due to reduced pumping capacity at the Inlet Pumping Station whilst it was operating with half the pump capacity during a major refurbishment project to replace the failed riser pipes and some pumps. The project was completed in December 2024 and there were no further discharges via the short outfall during the reporting period. One half of the pump station had to be taken offline to complete the work safely.

Date	Start	End	Duration	Average Discharge Flow Rate	Peak Discharge Flow Rate	Treated Volume Treated Effluent during overflow	Total volume of bypass	Dilution Ratio	Consented	Cause
			hrs/mins	L/s	L/s	m3	m3	-	Y/N	
2-Jul-24	1/07/2024 17:25	1/07/2024 20:25	03hr 00m	2,367	2,710	22,612	1,850	12:01	N	Wet Weather and reduction in capacity due to Clarifier 2 offline for refurbishment.
19-Aug-24	18/08/2024 15:10	18/08/2024 18:00	02hr 50m	2946.041	3086	30,026	379	79:01:00	Y	Wet Weather
17-Sep-24	16/09/2024 19:49	16/09/2024 23:24	03hr 35m	2,847.55	3,057	36,733.44	25.67	1431:01:00	Y	Wet Weather
14-Oct-24	14/10/2024 11:37	14/10/2024 11:40	00hr 03m	2,827	3,252	509	7.4	3:01	Y	Wet Weather
15-Nov-24	15/11/2024, 02:40	15/11/2024 11:19	8hr 39 m	314	689		9777	N/A	N	Wet Weather and reduction in pumping capacity in the Inlet Pump Station (IPS) - <b>Discharge to the short outfall.</b>
1-Jan-25	1/01/2025 10:22	1/01/2025 10:36	00hr 14m	1,993	2,254	1,716	N/A	N/A	N	Wet Weather and reduction in treatment capacity due to Clarifier 1 being offline for refurbishment. The Clarifier was brought back online on 14 July 2025.
3-Jan-25	3/01/2025 20:15	3/01/2025 20:23	00 hr 08m	2,527	2,921	1,213	155	6.7:1	N	
19-Mar-25	19/03/2025 15:18	19/03/2025 15:30	00hr 12m	1,978	2,971	1,384	108	12.8:1	N	
4-Apr-25	4/04/2025 11:47	4/04/2025 11:50	00hr 03m	1,874	2,271	320	0.57	559.6:1	N	
21-Apr-25	21/04/2025 3:04	21/04/2025 9:41	06hr 37m	2,447	3,211	50,418	7,122	7.1:1	N	
30-Apr-25	30/04/2025 14:38	1/05/2025 9:42	19hr 04m	2,208	3,629	128,243	20,399	6.3:1	N	
2-May-25	2/05/2025 10:47	2/05/2025 10:47	<b>25 seconds</b>	N/A	N/A	N/A	N/A	N/A	N	
9-May-25	9/05/2025 16:15	9/05/2025 18:52	02hr 37m	1,976	2627	18,520	157	118:01:00	N	
18-May-25	18/05/2025 13:05	18/05/2025 16:39	03hr 34m	1,872	2,360	23,387	97	240.3:1	N	
29-May-25	29/05/2025 21:02	30/05/2024 1:18	28hr 16m	1,445	3,099	137,025	4,804	240.3:1	N	
4-Jun-25	4/06/2025 17:07	5/06/2025 9:37	16hr 30m	2,078	3,556	114,239	10,997	10.4:1	N	
11-Jun-25	11/06/2025 15:15	13/06/2025 11:13	43hr 58m	1,707	3,566	270,478	11,644	23.2:1	N	
19-Jun-25	19/06/2025 12:54	19/06/2025 14:10	01hr 16m	1,980	2,679	8,913	127	70.2:1	N	
26-Jun-25	26/06/2025 15:43	28/06/2025 16:04	48hr 21m	1,422	2,381	241,037	224	1076:01:00	N	

Table 4: Bypass Events from 2024/25 Reporting Period

It is important to note that several of the discharges listed above in Table 4 throughout the reporting period will have occurred with the plant operating at full treatment capacity.

## Condition (10)

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.*

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 Sampling Sites**

The shoreline sampling results can be found in Appendix VII: Shoreline Sample Results

## Condition (13)

The annual report required by condition 19 of this permit shall detail what steps have been taken in the reporting year and what steps are proposed to be undertaken in the future to reduce infiltration and stormwater ingress into the Wellington City sewerage network.

This information shall include, but not be limited to, the following information:

- a) Details on the adoption of a policy to identify, and to repair or replace, defective private sewer drains in the Wellington City catchment. If such a policy is adopted, detail on its implementation made within the previous year
- b) Details of additional works that have been undertaken and what these works are expected to achieve
- c) An indication of when any on-going works will be completed
- d) Details of any investigations undertaken with regard to inflow and infiltration in the Wellington City catchment
- e) Details of any works or investigations planned for the next financial year

An inflow and infiltration report can be found in Appendix II.

## Condition (16)

The permit holder shall provide suitable wastewater sample 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

And 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:

$$C_{\text{mixed}}(a) = (C_{\text{tr}}(a) \cdot Q_{\text{tr}} + C_{\text{by}}(a) \cdot Q_{\text{by}}) / Q_{\text{mixed}}$$

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 the parameter of the mixed secondary treated and bypassed waste 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.

Samples were not taken for the 3 January 2025 discharge due to a communication error with the initial notification of the type of discharge that occurred by the plant operator. Samples were not taken for the 2 May 2025 discharge due to discharge occurring for less than 30 seconds.

There was a short outfall discharge on the 15 November 2024, this did not reach the bypass and is therefore not applicable.

The sample results for the bypass discharges can be found in Appendix VII.

## Condition (19)

The permit holder shall provide to the Manager, Environmental Regulation, Wellington Regional Council an Annual Assessment and Analysis Report for the period 1 July to 30 June by 31 July each year summarising compliance with the conditions of this permit. This report shall include, but not be limited to the following:

- 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) Comments on compliance with the conditions of this permit;
- d) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this permit;
- e) Any measures that have been undertaken to improve the environmental performance of the wastewater treatment and disposal system;
- f) A copy of any complaints recorded (in accordance with condition 18 of this permit) during the year;
- g) Any other issues considered to be important;

### Section (a)

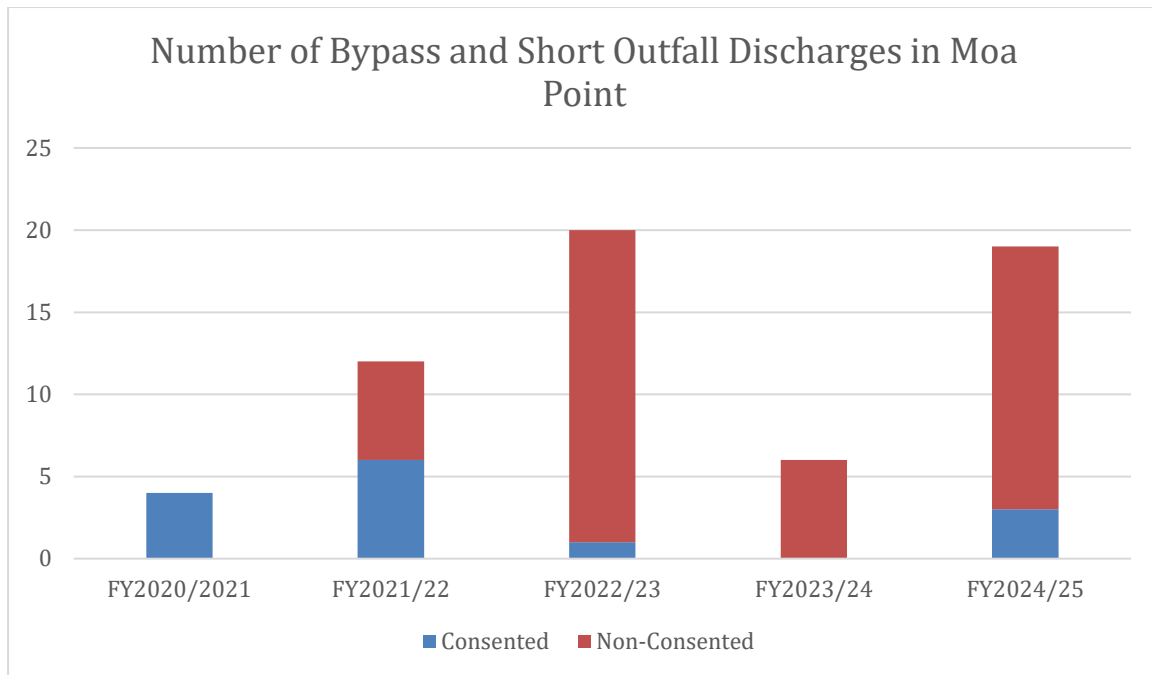
- a) A summary of all monitoring undertaken in accordance with the conditions of this permit and a critical analysis of the information in terms of compliance and adverse environmental effects;

A summary of all the monitoring data can be found in preceding parts of this consent report.

### Section (b)

- b) A comparison of data with previously collected data in order to identify any emerging trends;

The number of discharges in the last 5 reporting periods is shown in Figure 9.



**Figure 9: Comparison of Number of Discharges in Moa Point WWTP**

For the 2024/25 reporting period, the plant recorded 19 discharges, 16 of which were non-consented.

Of the 16 non-consented discharges, one was via the short outfall pipe during heavy rain whilst construction was taking place at the IPS in the final phase of the riser pipework renewal project.

The remaining 15 non-consented discharges occurred due to the extended period of reduced treatment capacity of the plant while the clarifiers were receiving refurbishments. Most of these discharges occurred from December 2024 to July 2025 whilst Clarifier #1 was out of service.

GWRC were notified prior to works commencing that this was an unavoidable risk while construction took place.

## Section (c & d)

- c) Comments on compliance with the conditions of this permit;
- d) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this permit;

The plant failed to comply to the flow threshold before a bypass discharge can occur due to the reduction in full treatment capacity arising from the IPS renewal works and the refurbishments of Clarifiers #1 and #2 for extended periods of time. The plant had 18 bypass discharges via the long outfall in total during this reporting period. With the IPS and all 3 Clarifiers being refurbished the plant is much more resilient to heavy rainfall events and the expectation is that there will be considerably less bypass discharges in future periods with the plant under normal operations.

GWRC issued a number of non-compliance notices relating to these discharges, responses were given within the required timeframe. These notices are listed in Appendix III.

## Section (e)

- e) Any measures that have been undertaken to improve the environmental performance of the wastewater treatment and disposal system;

As referenced under Condition 20e (31505), a draft Compliance Plan is currently under review by the relevant stakeholders to help return the plant to consistent compliance and is expected to be signed off in due course.

See also section G below for project updates.

## Section (f)

- f) A copy of any complaints recorded (in accordance with condition 18 of this permit) during the year;

There have been no complaints recorded for the 2024/25 reporting period.

## Section (g)

- g) Any other issues considered to be important;

The project to replace all the riser pipes at the IPS was completed in December 2024. The third and final Clarifier (#1) was refurbished in the second half of the reporting period being brought back into operation in July 2025. These projects strengthen the plant's reliability moving forward.

The next reporting period will see significant construction works take place at the plant including further works to link its operation to the Sludge Minimization Facility (SMF) currently under construction below the plant. This is a very complex project being delivered by Wellington City Council, for more information please visit the WCC website.

The plant's Ultraviolet Disinfection system will be fully replaced with physical works expected to begin in December 2025 and finish before the end of the next reporting period. This is also a complex project and further communications will be released as the project nears construction. Do

A project to replace the site's electrical and controls components will commence physical works during the 2025/26 financial year. This will also enhance the site's operational reliability. Further communications will be released prior to the physical works commencing.

Progress continues on design and delivery of other planned renewals at the site including PSTs, screenings handling, aeration system, RAS pumps, instrumentation, and odour treatment. These projects are all designed to enhance the plant's ability to treat wastewater reliably and compliantly.

# WGN 080003 [26182]

## Condition (3)

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
- d. Recommend any maintenance that is required.

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.

Surveys of the outfall pipeline was conducted in March 2025. Copies of the reports can be found in Appendix IV.

# WGN 080003 [26183]

## Condition (7)

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.

Ambient Microbe Monitoring was performed at Moa Point WWTP. The following table is a summary of the air quality monitoring in the vicinity of the WWTP:

The full report can be found in Appendix V: Ambient Microbe Monitoring

Date	Faecal Coliforms		Salmonella	
	Aug 2024	Feb 2025	Aug 2024	Feb 2025
Site 1	Absent	Absent	Absent	Absent
Site 2	Absent	Absent	Absent	Absent
Site 3	Absent	Absent	Absent	Absent
Site 4	Absent	Absent	Absent	Absent
Site 5	Absent	Absent	Absent	Absent
Site 6	Absent	Absent	Absent	Absent

**Table 9: Semi-Annual Air Quality Monitoring**

## Condition (8)

Hydrogen Sulphide (H<sub>2</sub>S) and other reduced Sulphur compounds shall be monitored in the deodorized 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 monthly results from the Hydrogen Sulphide (H<sub>2</sub>S) and Total Reduced Sulphur (TRS) are summarised in the in the following table:

Month	WWTP	
	H <sub>2</sub> S	TRS
	ppm	ppm
Jul-24	0.015	0.003
Aug-24	0.001	0.003
Sep-24	0.001	0.003
Oct-24	0.0001	<b>0.161</b>
Nov-24	0	<b>0.093</b>
Dec-24	0	<b>0.347</b>
Jan-25	0.0001	<b>0.149</b>
Feb-25	0	<b>0.368</b>
Mar-25	0	<b>0.488</b>
Apr-25	0	0.008
May-25	0	<b>0.074</b>
Jun-25	0	<b>0.077</b>
<b>Limits</b>	<b>0.01</b>	<b>0.05</b>

**Table 10: Monthly H<sub>2</sub>S and TRS Concentrations**

The plant was unable to consistently meet its treated air quality compliance requirements for TRS during the reporting period. The chemical scrubber is the original from the plant's inception and is past its useful asset life. Possible reasons for the elevated levels of TRS have been under investigation with Wellington Water consulting an overseas subject matter expert to provide technical advice to help return the plant to compliance consistently.

A report was issued by the consultant in June 2025 with several recommended actions to implement to return the plant to consistent TRS compliance moving forward. Some of these actions have already been implemented whilst further actions requiring more substantial work will be delivered in an all-encompassing refurbishment project. This project is already in advanced stages of planning and is expected to begin in the early part of the next reporting period.

Greater Wellington Regional Council has been notified of the progress regularly throughout and will continue to be updated as the project develops.

## Condition (9)

The discharge to air from the chemical scrubber system shall contain no more than 0.01ppm hydrogen sulphide (H<sub>2</sub>S) and no more than 0.05ppm total reduced Sulphur compounds (including H<sub>2</sub>S).

These limits have been included in the summary under WGN080003[26813] Condition (8).

## Condition (10)

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 Community Liaison Group, if requested.

A smoke test was performed on the WWTP in November 2024. The smoke test report can be found in Appendix VI: Smoke Test Report.

## Condition (14)

The permit holder shall provide to the Manager, Environmental Regulation, Wellington Regional Council an annual monitoring report for the period 1 July to 30 June, by 31 July each year summarising compliance with the conditions of this permit. A copy of the report shall be provided to Community Liaison Group, if requested.

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

- 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) Comments on compliance with the conditions of this permit
- d) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this permit
- e) Any measures that have been undertaken, to improve the environmental performance of the wastewater treatment and disposal system
- f) A copy of any complaints recorded (in accordance with condition 13 of this permit) during the year
- g) Outcomes from the implementation of the Odour Management Plan
- h) Any other issues considered important by the permit holder.

### Section (a)

A summary of all the monitoring data can be found in preceding parts of this consent report.

## Section (b)

A comparison of data from the 2024/25 reporting period was made to the previous five (5) years. The following section summarises that comparison.

The following tables are a comparison of the results from the air quality monitoring:

Location	Faecal Coliforms									
	Q1 - 2021	Q1 - 2022	Q1 - 2023	Q1 - 2024	Q1 - 2025	Q2 - 2021	Q2 - 2022	Q2 - 2023	Q2 - 2024	Q2 - 2025
Site 1	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 2	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 3	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 4	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 5	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 6	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent

Table 11: Comparison of Faecal Coliforms in Air

Location	Salmonella									
	Q1 - 2021	Q1 - 2022	Q1 - 2023	Q1 - 2024	Q1 - 2025	Q2 - 2021	Q2 - 2022	Q2 - 2023	Q2 - 2024	Q2 - 2025
Site 1	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 2	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 3	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 4	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 5	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Site 6	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent

Table 12: Comparison of Salmonella in Air

The following is a comparison of the monthly Hydrogen Sulphide and Total Reduced Sulphur (TRS) results:

Month	Moa Point WWTP											
	H <sub>2</sub> S (ppm)						TRS (ppm)					
	2020/2021	2021/2022	2021/2022	2022/2023	2023/2024	2024/2025	2020/2021	2021/2022	2021/2022	2022/2023	2023/2024	2024/2025
July	0.00013	0.001	0.004	0.001	0.001	0.015	0.002	0.002	0.002	0.004	0.002	0.003
August	0.00013	0.003	0.00018	0.001	0.001	0.001	0.002	0.002	0.002	0.003	0.002	0.003
September	0.00013	0.001	0.00018	0.001	0.001	0.001	0.002	0.002	0.002	0.003	0.002	0.003
October	0.0001	0.003	0.0011	<0.001	0.001	0.0001	0.009	0.002	0.002	0.002	0.002	0.161
November	0.0057	0.003	0.0022	<0.001	0.001	0	0.002	0.002	0.002	0.002	0.002	0.093
December	0.0015	0.003	0.00018	<0.001	0.001	0	0.002	0.002	0.037	0.002	0.002	0.347
January	0.0001	0.00015	0.00018	0.001	0.0001	0.0001	0.002	0.002	0.002	0.002	0.002	0.149
February	0.003	0.0002	0.00020	0.001	0	0	0.003	0.002	0.002	0.002	0.002	0.368
March	0.002	0.00018	0.0011	0.006	0	0	0.002	0.002	0.002	0.017	0.162	0.488
April	0.00011	0.002	0.00018	0.0002	0.0016	0	0.002	0.002	0.002	0.2	0.216	0.008
May	0.0001	0.01	0.00018	0.0002	0.0125	0	0.002	0.002	0.002	0.002	0.002	0.074
June	0.001	0.001	0.00015	0.001	0.0178	0	0.002	0.002	0.002	0.002	0.002	0.077
Limit	0.01						0.05					

Table 13: Monthly Moa Point WWTP H<sub>2</sub>S and TRS Comparison

The H<sub>2</sub>S were comparable over the 5-year period.

The TRS failures from October 2024 onwards have been explained in condition 8 above.

### Section (c)

See condition 8.

### Section (d)

See condition 8.

### Section (e)

See condition 8.

### Section (f)

Wellington Water received three complaints regarding plant odour in the reporting period, these are listed below in Table 14. However, feedback from the community suggests that more complaints have not been passed on to Wellington Water via other complaint platforms used by WCC and GWRC.

Date	Complaints	Details	Actions Taken
12/11/2024	Odour complaint	Received notification from GWRC at 8:55 PM - comment - Customer advised very strong smell drifting today from the Moa Point treatment plant.	Odour survey conducted, no odour detected.
21/03/2025	Odour complaint	Member of the public emailed Wellington Water " I wish to complain about the offensive smell coming from the Moa Point wastewater treatment plant any time there is warm weather and a light southerly that blows the offensive odor to Strathmore Park. Today it is very bad. I complain often to the WCC and now also the GWRC, but I don't believe these are getting passed on to the operators of Moa Point as a couple of weeks ago I visited the plant in person to complain in person and they said they had been surprised at the lack of complaints...despite the fact I have complained at least 10 times this year already.	Notification received too late for immediate investigation to take place. Odour survey carried out on 24/3, no odour detected.
24/04/2025	Odour complaint	I left the southern landfill site this evening at 7.45pm the stench from the Veolia DWP was very strong and detectable in and around the site however as the wind this evening is ESE and the complaint is south east of the landfill this complaint will relate to the Veolia Moa point site. This is a common occurrence with this wind direction	None.

Table 14: Odour complaints for Moa Point WWTP 2024/25

### Section (g)

The outcomes for the implementation of the Odour Management Plan are satisfactory. The plan needs to be reviewed to make sure that odour response across all the WWTPs is standardized.

### Section (h)

The works taking place on the chemical scrubber (mentioned in condition 8) are focused on returning the plant to compliance consistently as soon as possible. However, there is a larger project to upgrade the entire odour and ventilation system at the plant which is currently in the early planning stages. This is a much larger piece of work and will likely take place over the next couple of reporting periods.

# WGN9600094 [1471]

## Condition (8)

The pumping station and the chemical scrubber shall be operated in accordance with the manual provided for condition 7.

The pumping station is operated under the O&M manual of the plant.

## Condition (11)

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 summary of the hydrogen sulfide and TRS monitoring can be found in Table 14.

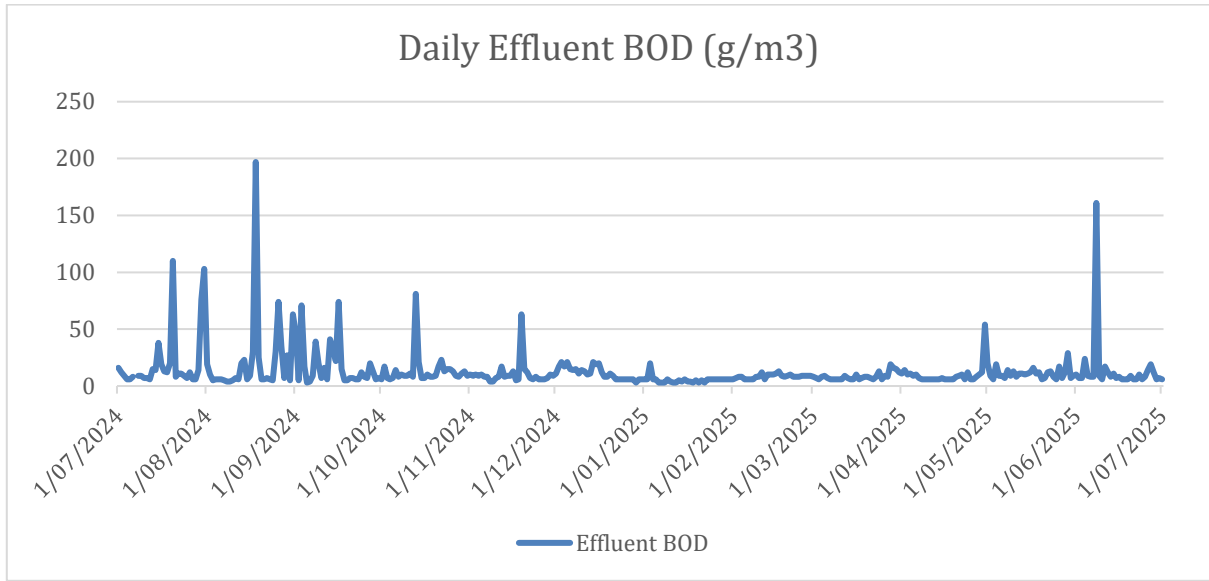
Month	IPS	
	H <sub>2</sub> S	TRS
	ppm	ppm
Jul-24	0	0.002
Aug-24	0	0.003
Sep-24	0	0.003
Oct-24	0.0011	<0.002
Nov-24	0.0001	<0.002
Dec-24	0.0005	<0.002
Jan-25	0.0018	<0.002
Feb-25	0	<0.002
Mar-25	0	<0.002
Apr-25	0	<0.002
May-25	0	<0.002
Jun-25	0	<0.002
<b>Limits</b>	<b>0.01</b>	<b>0.05</b>

**Table 15: Monthly Moa Point IPS H<sub>2</sub>S and TRS Comparison**

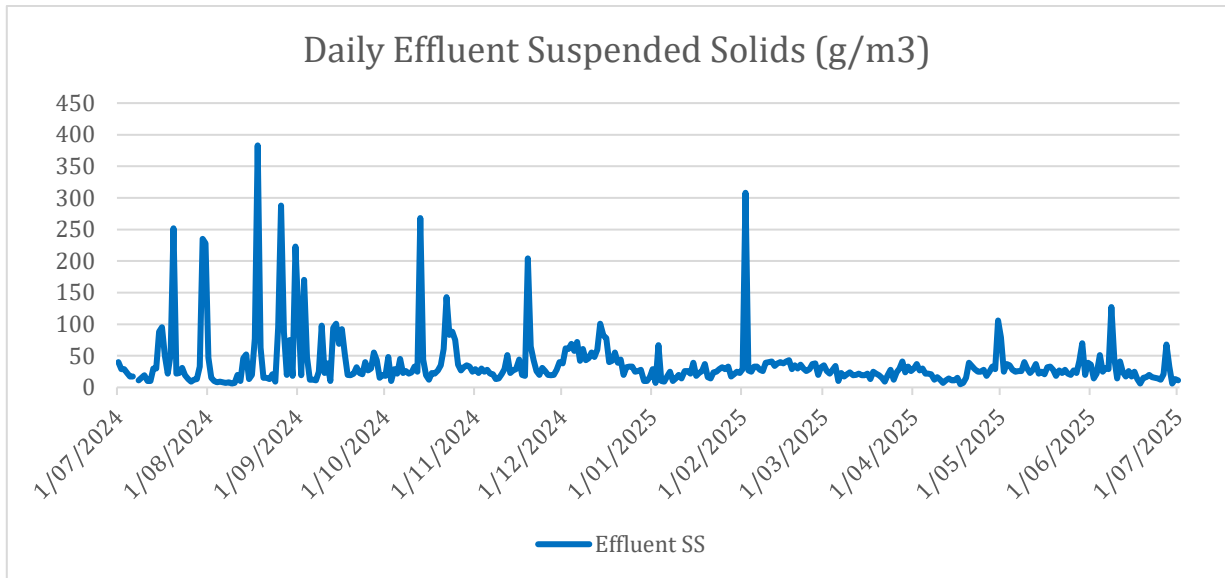
Both H<sub>2</sub>S and TRS were within the consent limits during the reporting period. The pH and oxidation reduction records can be made available upon request.

# Appendix I: Daily Effluent Results

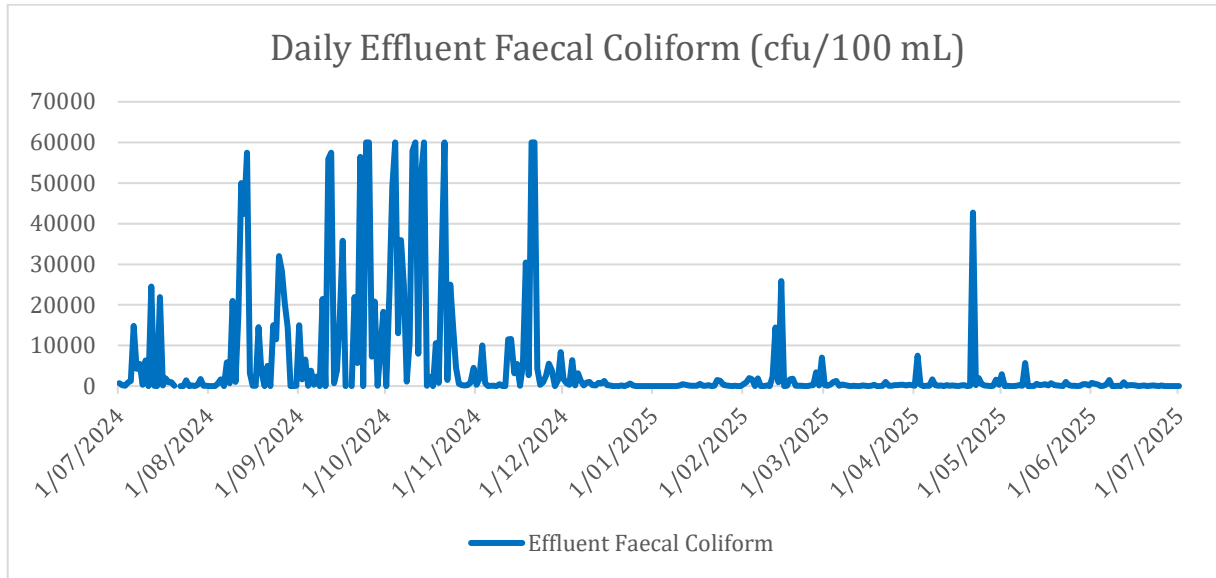
## Daily Effluent Carbonaceous Biological Oxygen Demand



## Daily Effluent Suspended Solids Results



# Daily Effluent Faecal Coliforms Results



# Appendix II: Inflow and Infiltration Report

## Condition (13)

The annual report required by condition 19 of this permit shall detail what steps have been taken in the reporting year and what steps are proposed to be undertaken in the future to reduce infiltration and stormwater ingress into the Wellington City sewerage network.

This information shall include, but not be limited to, the following information:

- a) Details on the adoption of a policy to identify, and to repair or replace, defective private sewer drains in the Wellington City catchment. If such a policy is adopted, detail on its implementation made within the previous year
- b) Details of additional works that have been undertaken and what these works are expected to achieve
- c) An indication of when any on-going works will be completed
- d) Details of any investigations undertaken with regard to inflow and infiltration in the Wellington City catchment
- e) Details of any works or investigations planned for the next financial year

## 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 wet weather flows at Moa Point Wastewater Treatment Plant (WWTP) and to also improve the health of waterways. Sections (a), (b), (c), (d) and (e) of Condition 13 are addressed below through the various activities and work programs that contribute to reducing inflow and infiltration.

### Section (a)

Wellington City Council (WCC) have updated the ownership arrangement for wastewater laterals, which came into effect on 1 July 2021. The section of wastewater lateral located in the legal road was previously a private asset and is now council owned.

Detection of faulty laterals contributing to infiltration and inflow from stormwater to wastewater cross connections continue to be identified through ongoing operations and maintenance work and targeted inspections. Property owners are advised to repair faults within their property and faults within the legal road from 1 July are repaired or replaced by Wellington Water.

### Section (b), (c), (d) and (e)

The following work programs and activities described below provide information relating to Condition 13, sections (b) to (e).

#### Inflow Surveys

Inflow surveys have been undertaken in 2024-2025 financial year in the Moa Point WWTP Catchment. Primarily driven by the high level of E. Coli on the environmental water quality monitoring sites, investigation took place in Miramar, Broadmeadows and Newlands.

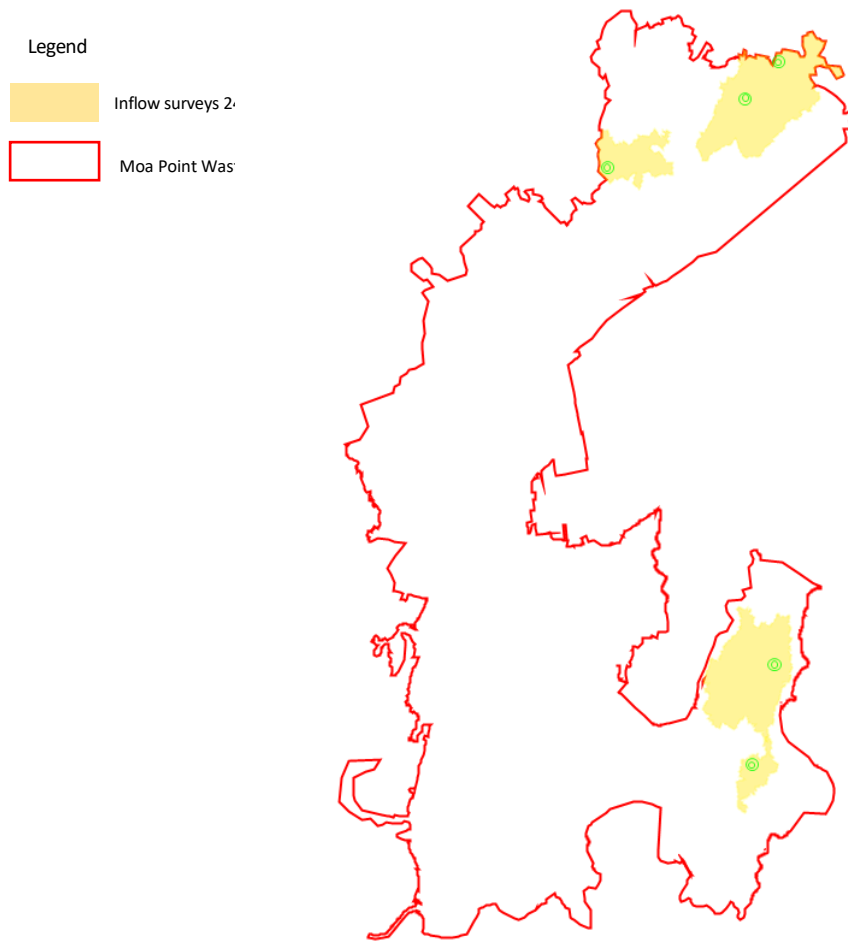


Figure 1 - Inflow Survey Project Locations for Moa Point WWTP catchment during 24-25

### Flow Monitoring and Rain Gauge Monitoring

These active long-term flow monitoring sites within the Moa Point WWTP Catchment are shown within the blue polygon in Figure 2 below. There are 8 flow, 36 Operational Level Monitoring sites for controlled and uncontrolled overflow measuring level only and 7 pump station monitored by SCADA.

These monitoring sites are part of the long-term monitoring contract. The latest regional contract commenced in July 2023 and some updates to the monitoring locations were undertaken. This data is used to understand network performance and the extent of inflow and infiltration in various catchments. This data also enables investigation of network issues and maintenance of hydraulic models. Wastewater monitoring is also undertaken at most Wastewater Pump Station sites.

There are currently 7 rain gauges monitoring stations in the Moa Point catchment. This data is used in conjunction with flow monitoring data to understand the extent of I&I for catchments.

Table 1 - Monitors of the network

Sensor ID	Location	Purpose	Type
47CONSTABLE	47 Constable Street	Overflow	Depth only
115STHKARORI	113c South Karori	Overflow monitoring	Depth only

143MOXHAM	143 Moxham	Overflow	Depth only
62STHKARORI	43 Hathaway	Overflow	Depth only
Hospital	8b Hospital Road	Overflow	Depth only
WALMER	41 Wellington Road	Overflow	Depth only
126THEESP	124a The Esplanade	Overflow	Depth only
5ELPHINSTONE	5 Elphistone Ave	Overflow	Depth only
60KENT	63 Kent Terrace	Overflow	Depth only
SOUTHAMP	55 Southampton	Overflow	Depth only
38 Kent	51 Cambridge	Overflow	Depth only
KENTWAKE	2 Oriental Parade	Overflow	Depth only
78CONSTABLE	76 Constable Street	Overflow	Depth only
Myrtle	4/2 King Street	Overflow	Depth only
Cowan	6 Cowan Pl	Overflow	Depth only
LYALLQUEENS	130 Lyall Parade	Overflow	Depth only
Berhamp	2b The Parade	Overflow	Depth only
12AMANLEY	12 Manley Tce	Overflow	Depth only
TIRANGI	120 Tirangi Road	Overflow	Depth only
COURTNEY	49 Courtenay Place	Overflow	Depth only
DUNGARVIN	52 Dugarvin Rd	Overflow	Depth only
Houhgton 2	219 Houghton Bay Road	Overflow monitoring	Depth only
WEKAST	30 Weka Street	Overflow	Depth only
WATERLOO	50 Waterloo Quay	Overflow	Depth only
275 Ohiro	274 Ohiro Road	Overflow	Depth only
OTARI WILTON	Wilton Bush Road	Overflow	Depth only
PS30	17 Strathmore	Overflow	Depth only
TRELISSICKSTR		Overflow	Depth only
STHKARORI	97 HAZLEWO	Flow monitoring	Height Velocity and Quantity (HVQ)
TRELISSICK	51 Ngaio Road	Flow monitoring	Height Velocity and Quantity (HVQ)
Middleton	Willowbank Road by Takapu	Flow monitoring	Height Velocity and Quantity (HVQ)
Byron	45 Park Road	Flow monitoring	Height Velocity and Quantity (HVQ)
Kahurangi	55 Strathmore Avenue	Flow monitoring	Height Velocity and Quantity (HVQ)
Wall	13A Wall Place	Flow monitoring	Height Velocity and Quantity (HVQ)
Murphy	22 Murphy Street	Flow monitoring	Height Velocity and Quantity (HVQ)
RODRIGO	32 Childers Terrace	Flow monitoring	Height Velocity and Quantity (HVQ)
WCC_RG_03	50 Waiapu Road,	Rainfall monitoring	Rainfall gauge
WCC_RG_02	21 Emerson Street,	Rainfall monitoring	Rainfall gauge

WCC_RG_01	10 Kabul Street,	Rainfall monitoring	Rainfall gauge
WCC_RG_04	20 Marsden Avenue,	Rainfall monitoring	Rainfall gauge
WCC_RG_05	28 Puriri Street,	Rainfall monitoring	Rainfall gauge
WCC_RG_06	22/9 Surrey Street,	Rainfall monitoring	Rainfall gauge
WCC_RG_07	37 Red Beech Avenue,	Rainfall monitoring	Rainfall gauge
Newtown at Carmicha	Carmichael Reservoir	Rainfall monitoring	Rainfall gauge
Hataitai Park	39 RUAHINE STREET	Rainfall monitoring	Rainfall gauge
Foreshore	445 The Esplanade	Rainfall monitoring	State only
86 Owhiro	92 Owhiro Bay	Rainfall monitoring	State only
270THEPARADE	270 The Parade	Rainfall monitoring	State only
388 Broadway	3 Hobart Street	Rainfall monitoring	State only
230THEESP	245 The Esplanade	Rainfall monitoring	State only
75Thorndon	81 Thorndon Quay	Rainfall monitoring	State only
Featherston and	106 Featherst	Rainfall monitoring	State only
TARAGHUZ	9 Ghuznee Street	Rainfall monitoring	State only
Alfred	2b/21 Rugby Street	Rainfall monitoring	State only
Drummond	120 Adelaide Road	Rainfall monitoring	State only
53 Mersey	210 The Parade	Rainfall monitoring	State only
Featherston and	22a Brandon Street	Rainfall monitoring	State only
Sensor ID	Location	Purpose	Type
47CONSTABLE	47 Constable Street	Overflow	Depth only

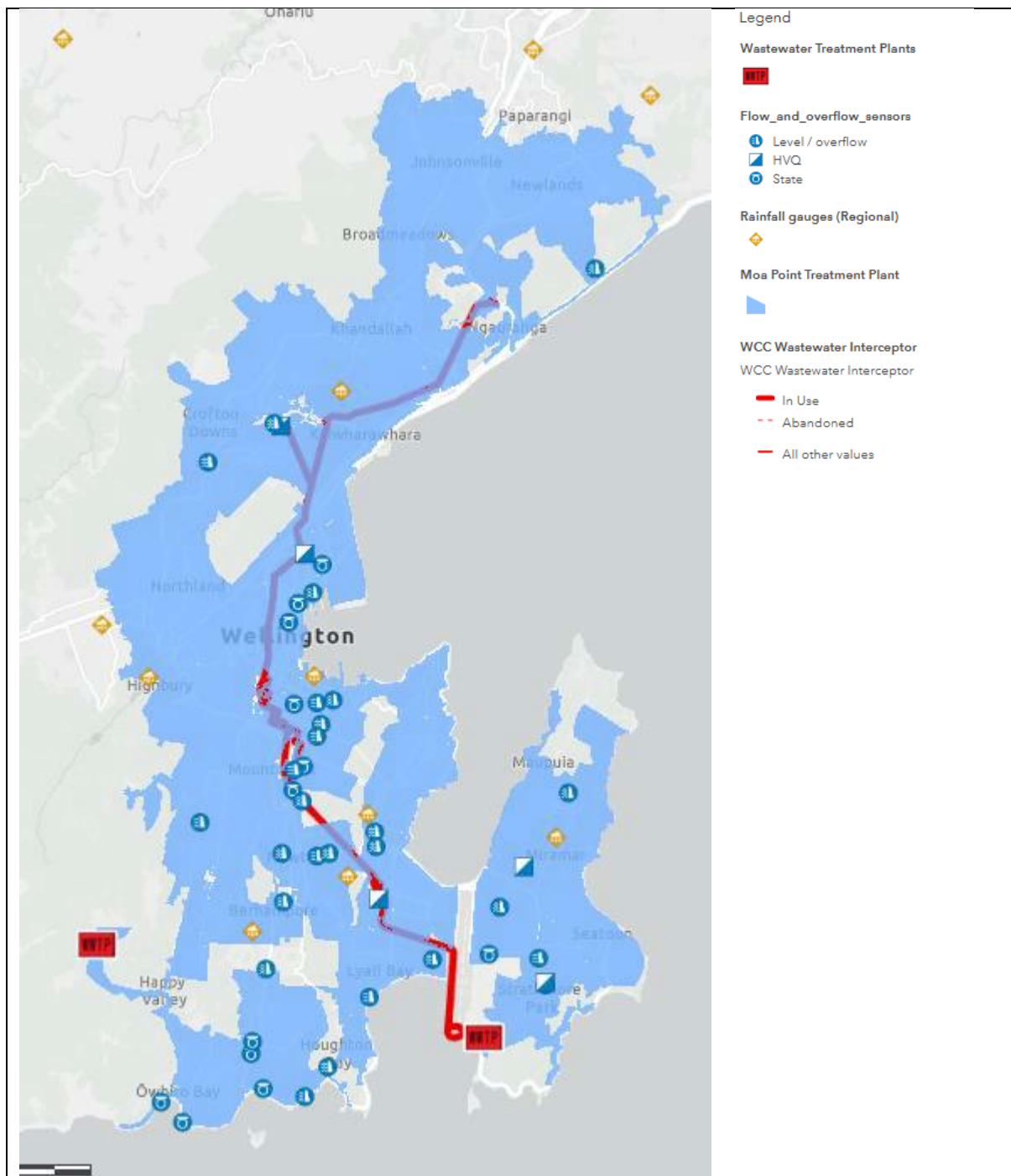


Figure 2 - Map of Active Wastewater Monitoring Sites and Rain Gauges in Moa Pt WWTP Catchment

### Condition Assessments

The inspection during 24-25 were focus on the interceptor specially around the ADITs of the sewer networks and the eastern trunk, this inspection proactively will inform with high confidence the status of the infrastructure and enable to identify opportunities to improve the reliability of the network.

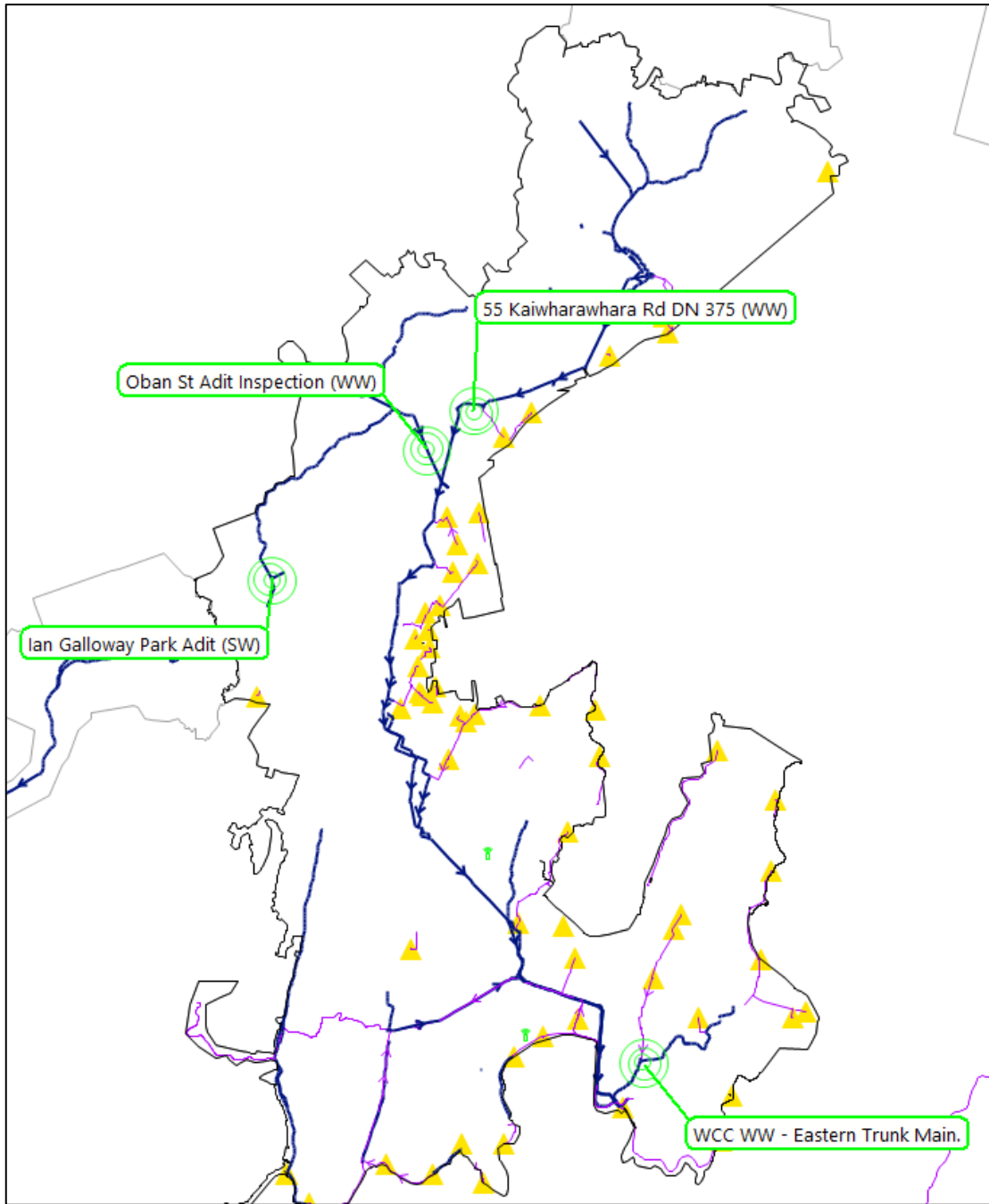


Figure 3 – Drainage infrastructure inspected in 24-25.

### Wastewater Modelling

The Moa Point WWTP Catchment has four wastewater network models including Evans Bay, Island Bay, CBD Model and Western hills model. Recently work has been carried out to integrate all models into the one model to reflect the entire Moa Point WWTP Catchment.

### Stormwater and Wastewater Capital Projects

Key projects completed during this period include the Taranaki Pump Station and rising main, which significantly enhance the resilience of the sewer network in the central business district. Further improvements were delivered through the Wakefield Street stormwater rising main.

Additional watermain renewals were completed in areas such as Trelissick Park, Newtown, and Te Aro, contributing to improved network reliability and reduced infiltration.

Erosion mitigation works were also carried out along Papawai Stream, along with the rehabilitation of a critical stormwater pipe on Moorefield Road in Johnsonville.

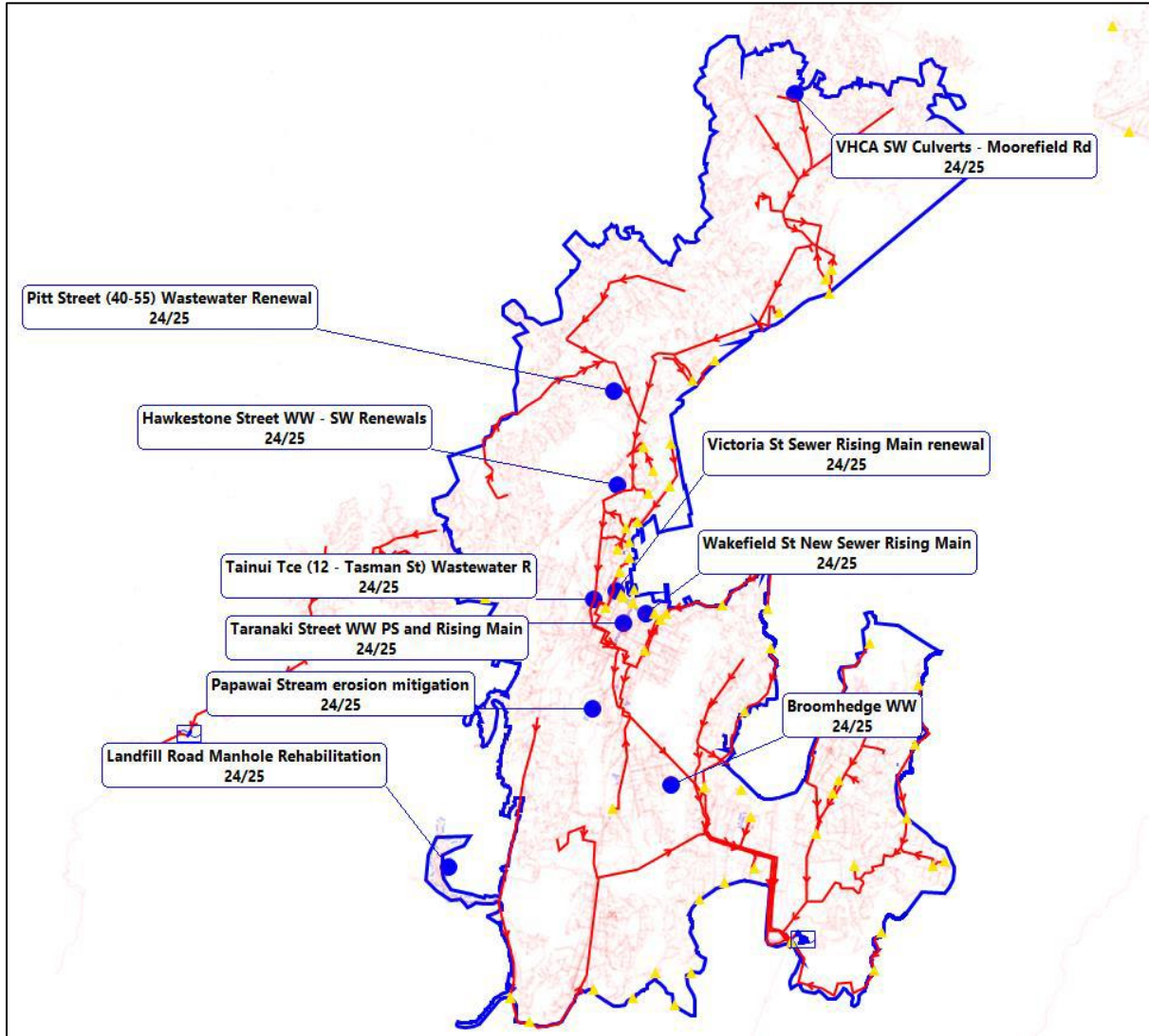


Figure 4- Capital project delivered 24-25

# Appendix III: Non-compliance notices

<b>Notice Description</b>	<b>Date Issued</b>	<b>Facility</b>	<b>Details</b>
Please Explain	12/7/2024	Moa Point WWTP	PX letter issued by GWRC in relation to untreated wastewater to CMA via short outfall pipe at Moa Point WWTP - Discharge occurred on 27/09/2023 & 30/09/2023 because of the heavy rain and the reduced capacity at the Moa Point Inlet Pumping Station (IPS) due to mechanical failure
Abatement Notice - A1112	30/10/2024	Moa Point WWTP	GWRC issued PX letter in relation to discharge of non-compliant effluent quality under condition 10 of WGN08003 [31505] between 21 September 2022 and 27 September 2023. On 27/09/2023, Moa Point became non-compliant with 90 day 90th percentile limit for suspended solids
Please Explain	20/12/2024	Moa Point WWTP	Abatement notice issued by GWRC due to the increase in the number of discharges GWRC has listed requirements to complete Moa Point WWTP Inlet pump station upgrade by 24 November 2023 & bring the pumping capacity back to what it was designed for.
Infringement Notice <b>I1147</b>	16/5/2025	Moa Point WWTP	GWRC issued Infringement Notice I1147 for the ongoing discharge of non-compliant effluent quality from Moa Point Plant ).WWL have been charged \$750 for each of the infringement notices
Infringement Notice <b>I1148</b> for breach of abatement notice A981.	16/5/2025	Moa Point WWTP	GWRC issued Infringement Notice I1148 for the discharge of non-compliant effluent quality from Moa Point Plant ).WWL have been charged \$750 for each of the infringement notice.

# **Appendix IV: Outfall Pipeline Assessments**

# Appendix V: Ambient Microbe Monitoring

# Appendix VI: Smoke Test Report

# Appendix VII: Bypass Sample Results

# Appendix VIII: Shoreline Sample Results