

## CONSENT SUMMARY REPORT

**Watercare**  
An Auckland Council Organisation



**Waikato**  
**District Council**  
Te Kaunihera aa Takiwaa o Waikato

Consent Name	Matangi Wastewater Treatment System
Consent	105551 - <i>Expired S.124 Protection</i>
Year	1 July 2023 – 30 June 2024
Date	July 2024

### **Matangi WASTEWATER TREATMENT SYSTEM**

#### **ANNUAL REPORT 2023 - 2024**

##### **RC 105551**

The Waikato District Council (WDC) holds the above resource consents associated with the treatment and discharge of wastewater from the Matangi wastewater treatment plant (WWTP) to land. Waikato District Council in conjunction with Watercare Services Limited operates the facility under the resource consents issued by Waikato Regional Council. This consent expired on September 30<sup>th</sup>, 2021.

The conditions issued by Waikato Regional Council include the following:

119642      To discharge up to 52m<sup>3</sup> per day of treated wastewater from the plant, subject to a number of conditions.



## CONSENT SUMMARY REPORT

### OPERATIONAL COMMENTS

Staff Maintenance Visits: An operations staff member visits the site at least once a week.

#### Update

- Beca consultants were engaged to deliver a report on the Matangi treatment plant performance containing recommendations for improvements in the plant and network, as well as conditions for the consent renewal process. A report was provided to WRC for comment and feedback on the next steps.
- Further engagement with Mana whenua will be upcoming to finalise the assessment and review report findings. This will highlight and progress discussions relating to mitigating cultural/environmental effects.
- Ongoing discussions with Matangi School and MoE to provide updates on progress and receive information on their progress for installing a private discharge flow meter. This is required to confirm peak discharges and allow assessment of potential I&I issues within the school's wastewater infrastructure.

*- Watercare Waikato Infrastructure Development Team.*

EVENT SUMMARY		JULY 2023– JUNE 2024	
2023 - 2024		All events notified to WRC	

COMPLAINTS SUMMARY		JULY 2023 – JUNE 2024	
2023 - 2024		Nil received.	



## CONSENT SUMMARY REPORT

*To determine compliance with the median limits (excluding E.coli), no more than six samples in any 12 consecutive monthly samples over the period 1 July to 30 June each year shall exceed the specified limit.*

*To determine compliance with the median E. coli limit, no more than 26 samples in any 52 consecutive weekly samples shall exceed the specified limit.*

*To determine compliance with the 90th percentile limits, no more than one sample in any ten consecutive monthly sampling events shall exceed the specified limit.*

Compliance with the discharge quality conditions are summarized in the above table within the Compliance column. The measurement stated in the Compliance column cell indicates the number of test results exceeding the median or 90<sup>th</sup> percentile limit. The shading in the Compliance column cells indicates the state of compliance for each parameter; if the cell is shaded **green** the parameter is compliant, if the cell is shaded **red** the parameter is non-compliant.

Data Summary		2024		RC105551 - Matangi			
<b>Outflow Summary Reporting</b>		<b>Daily Limit - 50 m3</b>					
Average Daily Flow			34				
Max Daily Flow			94				
90th Percentile Daily Flow			77				
Average Monthly Total			1,047				
Max Monthly Total			1,922				
Annual Outflow Total			12,565				
<b>Discharge Monthly Tests</b>		<b>Measured</b>		<b>Compliance</b>			
Parameters	Unit	Median	90 <sup>th</sup> ile	Median	90 <sup>th</sup> ile		
CBOD5	g/m <sup>3</sup>	6.4	9.2				
Ammoniacal Nitrogen	g/m <sup>3</sup>	12.3	20.8				
Nitrate	g/m <sup>3</sup>	36.8	53.0				
Total Nitrogen	g/m <sup>3</sup>	58.5	84.9				
Dissolved Reactive Phosphorus	g/m <sup>3</sup>	5.565	6.574				
<b>Quarterly Sampling Bore 1</b>		<b>Measured</b>		<b>Compliance</b>			
Parameters	Unit	Median	90 <sup>th</sup> ile	Jul-2023	Oct-2023	Jan-2024	Apr-2024
CBOD5	g/m <sup>3</sup>	0.3	0.7	4.3	6.7	8.6	5.5
Ammoniacal Nitrogen	g/m <sup>3</sup>	0.2	0.2	5.7	8.8	12	23.4
Nitrate	g/m <sup>3</sup>	2.6	7.2	19.5	24.8	41.1	54.3
Total Nitrogen	g/m <sup>3</sup>	2.9	7.4	28.0	38.0	56	84
Dissolved Reactive Phosphorus	g/m <sup>3</sup>	0.028	0.0319	3.4	3.5	6.34	6.59
<b>Quarterly Sampling Bore 2</b>		<b>Measured</b>		<b>Compliance</b>			
Parameters	Unit	Median	90 <sup>th</sup> ile	Jul-2023	Oct-2023	Jan-2024	Apr-2024
CBOD5	g/m <sup>3</sup>	0.3	0.7	0.3	0.3	0.71	0.25
Ammoniacal Nitrogen	g/m <sup>3</sup>	0.2	0.7	0.2	0.2	0.0025	0.2
Nitrate	g/m <sup>3</sup>	27.1	43.3	8.9	4.1	1.33	2.27
Total Nitrogen	g/m <sup>3</sup>	28.0	47.7	8.9	4.2	1.3	2.7
Dissolved Reactive Phosphorus	g/m <sup>3</sup>	2.7	3.026	0.0	0.0	0.032	0.028
<b>Quarterly Sampling Bore 3</b>		<b>Measured</b>		<b>Compliance</b>			
Parameters	Unit	Median	90 <sup>th</sup> ile	Jul-2023	Oct-2023	Jan-2024	Apr-2024
CBOD5	g/m <sup>3</sup>	0.3	0.3	0.3	0.3	0.72	0.25
Ammoniacal Nitrogen	g/m <sup>3</sup>	0.2	0.2	0.7	0.2	0.094	0.756
Nitrate	g/m <sup>3</sup>	6.8	17.0	19.5	20.4	34	40.2
Total Nitrogen	g/m <sup>3</sup>	6.9	16.2	20.0	21.0	32	45
Dissolved Reactive Phosphorus	g/m <sup>3</sup>	0.043	0.0552	2.4	2.8	2.33	2.28

**CONSENT SUMMARY REPORT**

**ANNUAL REPORT**

**JUNE 2023 – JULY 2024**

The Matangi WWTP has generally operated in compliance with the conditions of Resource Consent 105551. Important matters to note and non-compliances are detailed below against the corresponding consent condition. A summary of results are included in the spreadsheet above.

Conditions Comments																																																																																																																						
1	<p><i>The volume of effluent discharged from the wastewater treatment and disposal system shall not exceed 52 cubic metres per day.</i></p> <ul style="list-style-type: none"> <li>• Non-Compliant - Maximum volume discharged per day exceeded in June, July, August, September, October 2023.</li> <li>• As the below table shows, there has been a decrease in discharge quantity in 2024 which is believed to be attributed to some work completed with manholes in the area that likely decreased stormwater infiltration.</li> </ul> <table border="1"> <thead> <tr> <th></th> <th>OutflowMin</th> <th>OutflowAvg</th> <th>OutflowMax</th> <th>OutflowTotal</th> <th>InflowMin</th> <th>InflowAvg</th> <th>InflowMax</th> <th>InflowTotal</th> </tr> </thead> <tbody> <tr> <td>Jul-23</td> <td>48.8</td> <td>66.0</td> <td>94.3</td> <td>2047.4</td> <td>50.7</td> <td>69.2</td> <td>97.3</td> <td>2146.0</td> </tr> <tr> <td>Aug-23</td> <td>42.1</td> <td>48.9</td> <td>66.7</td> <td>1516.1</td> <td>46.0</td> <td>52.1</td> <td>67.8</td> <td>1616.0</td> </tr> <tr> <td>Sep-23</td> <td>2.9</td> <td>42.2</td> <td>73.5</td> <td>1265.1</td> <td>2.9</td> <td>42.8</td> <td>65.6</td> <td>1282.6</td> </tr> <tr> <td>Oct-23</td> <td>40.9</td> <td>53.3</td> <td>77.6</td> <td>1650.9</td> <td>41.3</td> <td>55.9</td> <td>76.0</td> <td>1733.0</td> </tr> <tr> <td>Nov-23</td> <td>20.8</td> <td>37.8</td> <td>47.4</td> <td>1133.3</td> <td>30.5</td> <td>38.6</td> <td>44.9</td> <td>1159.1</td> </tr> <tr> <td>Dec-23</td> <td>19.1</td> <td>26.9</td> <td>36.0</td> <td>833.5</td> <td>19.4</td> <td>28.3</td> <td>36.4</td> <td>875.9</td> </tr> <tr> <td>Jan-24</td> <td>18.5</td> <td>22.1</td> <td>27.2</td> <td>683.6</td> <td>18.8</td> <td>22.5</td> <td>26.1</td> <td>696.8</td> </tr> <tr> <td>Feb-24</td> <td>21.0</td> <td>23.3</td> <td>29.0</td> <td>677.1</td> <td>19.8</td> <td>23.5</td> <td>28.4</td> <td>682.9</td> </tr> <tr> <td>Mar-24</td> <td>20.1</td> <td>23.3</td> <td>31.7</td> <td>721.7</td> <td>19.1</td> <td>23.2</td> <td>27.9</td> <td>718.2</td> </tr> <tr> <td>Apr-24</td> <td>19.3</td> <td>22.3</td> <td>30.9</td> <td>669.7</td> <td>19.0</td> <td>23.3</td> <td>31.9</td> <td>698.4</td> </tr> <tr> <td>May-24</td> <td>21.2</td> <td>25.5</td> <td>35.1</td> <td>789.7</td> <td>21.2</td> <td>25.3</td> <td>33.3</td> <td>784.0</td> </tr> <tr> <td>Jun-24</td> <td>17.1</td> <td>23.4</td> <td>30.1</td> <td>702.7</td> <td>21.4</td> <td>25.6</td> <td>38.6</td> <td>769.3</td> </tr> </tbody> </table>		OutflowMin	OutflowAvg	OutflowMax	OutflowTotal	InflowMin	InflowAvg	InflowMax	InflowTotal	Jul-23	48.8	66.0	94.3	2047.4	50.7	69.2	97.3	2146.0	Aug-23	42.1	48.9	66.7	1516.1	46.0	52.1	67.8	1616.0	Sep-23	2.9	42.2	73.5	1265.1	2.9	42.8	65.6	1282.6	Oct-23	40.9	53.3	77.6	1650.9	41.3	55.9	76.0	1733.0	Nov-23	20.8	37.8	47.4	1133.3	30.5	38.6	44.9	1159.1	Dec-23	19.1	26.9	36.0	833.5	19.4	28.3	36.4	875.9	Jan-24	18.5	22.1	27.2	683.6	18.8	22.5	26.1	696.8	Feb-24	21.0	23.3	29.0	677.1	19.8	23.5	28.4	682.9	Mar-24	20.1	23.3	31.7	721.7	19.1	23.2	27.9	718.2	Apr-24	19.3	22.3	30.9	669.7	19.0	23.3	31.9	698.4	May-24	21.2	25.5	35.1	789.7	21.2	25.3	33.3	784.0	Jun-24	17.1	23.4	30.1	702.7	21.4	25.6	38.6	769.3
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2	<p><i>The consent holder shall retain appropriately experienced personnel to operate the treatment and disposal system.</i></p> <ul style="list-style-type: none"> <li>• All of Watercare’s operators are experienced to operate the treatment and disposal system.</li> </ul>																																																																																																																					
3	<p><i>The wastewater treatment plant and disposal system shall be operated and maintained in a manner that is consistent with the document titled “Matangi Township, Wastewater treatment System – Management Manual (revised July 2008)”.</i></p> <ul style="list-style-type: none"> <li>• Reflection Treatment Systems provided an amended manual for the 2008 upgrade.</li> </ul>																																																																																																																					
4	<p><i>The wastewater treatment tanks shall be de-sludged as necessary and in particular following receipt of notice in writing from the Waikato Regional Council to do so. The sludge waste shall be disposed of in an approved wastewater sludge disposal area.</i></p> <ul style="list-style-type: none"> <li>• Tanks were de-sludged as part of normal processes.</li> </ul>																																																																																																																					
5	<p><i>There shall be no overland flow of effluent from any part of the wastewater treatment or effluent disposal system.</i></p>																																																																																																																					



**CONSENT SUMMARY REPORT**

	<ul style="list-style-type: none"> <li>• There was no overland flow onto neighbouring properties.</li> </ul>
6	<p><i>The consent holder shall continue to determine the quality, quantity and variability of the treated wastewater prior to discharge, and determine the effects of the discharge on groundwater.</i></p> <ul style="list-style-type: none"> <li>• Please see Summary above and Appendix 1 for full set of results</li> <li>• Bore monitoring is undertaken as required. Matangi WWTP currently going through a reconsenting process. It is anticipated that greater parameter monitoring will be needed for the future.</li> </ul>
7	<p><i>The consent holder shall retain an appropriately experienced person to compile an annual monitoring report provided to Waikato Regional Council within two months of the fourth quarterly sample being taken.</i></p> <ul style="list-style-type: none"> <li>• This report is submitted in compliance with this condition.</li> </ul>