

CONSENT SUMMARY REPORT



Consent Name	Meremere Wastewater Treatment System
Consent No.	142286
Year	1 July 2023 – 30 June 2024
Date	July 2024

MEREMERE WASTEWATER TREATMENT SYSTEM ANNUAL REPORT 2023 - 2024

RC 142286

The Waikato District Council (WDC) holds the above resource consents associated with the treatment and discharge of wastewater from the Meremere wastewater treatment plant (WWTP) to the Waikato River. Waikato District Council in conjunction with Watercare Services Limited operates the facility under the resource consents issued by Waikato Regional Council. The consent (RC 142286) came into effect December 2020 and expires on 9 December 2055.

The consent conditions issued by Waikato Regional Council include the following:

- 142286 To discharge treated municipal wastewater from the Meremere Wastewater Treatment Plant to the Waikato River, and associated discharges to land and air.

The 2023-24 discharge consent reporting is based on the new consent issued on 9 December 2020. From 01 July 2023 to 31 June 2024 Meremere wastewater treatment plant achieved compliance for discharge quantity and quality Conditions.

Appendix 1 – Effluent Quality Results

Appendix 2 – Complaints Summary

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OPERATIONAL COMMENTS

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

UPDATE / COMPLETED WORKS

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EVENT SUMMARY		JULY 2023 – JUNE 2024	
2023-2024		All non-compliances are notified to WRC.	

COMPLAINTS SUMMARY		JULY 2023 – JUNE 2024	
2023-2024		None received.	

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Compliance with the discharge quality and quantity conditions are summarized in the below table. The measurement stated in the Compliance column cell indicates the number of test results exceeding the median or 90th 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	Jun-2024	RC142286 - Meremere
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Key	Compliant
	Median limit exceeded
	90th percentile limit exceeded/max value exceeded

Inflow Summary Reporting	m ³
Average Daily Inflow	146
Max Daily Inflow	782
Average Monthly Total	4,458
Max Monthly Total	7,152
Annual Inflow Total	53,501

Outflow Summary Reporting	Daily Limit - 1500 m3
Average Daily Flow	184
Max Daily Flow	1,437
90th Percentile Daily Flow	987
Average Monthly Total	5,610
Max Monthly Total	11,776
Annual Outflow Total	67,318

Winter Phosphorus Load (Jun-Nov)	
Average Total Phophouru:	3
YTD Total Volume	44,807
YTD # of Days	182
Average Load (kg/day)	0.70

Summer Phosphorus Load (Dec-May)	
Average Total Phophouru:	3
YTD Total Volume	22,512
YTD # of Days	181
Average Load (kg/day)	0.35

Annual Nitorgen Load	
Average Total Nitrogen	7
YTD Total Volume	67,318
YTD # of Days	366
Average Load (kg/day)	1.20

	pH	CBOD5	TKN	Ammoniacal Nitrogen	Total Phosphorus	Suspended Solids	E. coli	Total Nitrogen (N)
Median Limit	-	15	-	6	-	16	650	-
90th Percentile Limit	-	55	-	25	-	110	-	-
Count of Samples	25	25	25	25	25	25	25	25
Median Result	7.8	2.2	3.02	0.2	2.87	9.6	0.5	5.5
90th Percentile Result	8	7.3	4.74	1.28	4.77	45.4	3.1	13

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CONDITION REPORT

JULY 2023 – JUNE 2024

The Meremere Wastewater Treatment Plant is expected to operate in compliance with the conditions of Resource Consent 142286. Important matters to note and non-compliances are detailed below against the corresponding consent condition.

A summary of results is included in the spreadsheet above and a summary of compliance matters are included in the cover letter.

Conditions Comments	
2	<p>The consent holder shall be responsible for all sub-contracted operations related to the exercise of this consent and must ensure sub-contractors are made aware of the conditions of this consent.</p> <ul style="list-style-type: none"> • All contractors employed at the treatment site are inducted in both health and safety procedures and relevant conditions of this consent.
4	<p>The volume of treated wastewater discharged shall not exceed a 90th percentile of 1,500 cubic metres per day, determined for the period of 1 July to 30 June.</p> <ul style="list-style-type: none"> • The 90th percentile volume of treated wastewater discharged for the period of 1 July to 30 June was compliant. • For full results please see Appendix 1.
5	<p>Until the consent holder advises Waikato Regional Council of the successful commissioning of the side-stream Membrane Bioreactor (MBR) treatment process in writing, or by 1 December 2021, whichever occurs first, the consent holder shall ensure that the treated wastewater leaving the WWTP following UV treatment does not exceed the following limits:</p> <p style="margin-left: 40px;"> <i>(a) The median five-day carbonaceous biochemical oxygen demand concentration (cBOD5) shall not exceed 15 milligrams per litre and the 90th percentile shall not exceed 55 milligrams per litre;</i> <i>(b) The median suspended solids (TSS) concentration shall not exceed 16 milligrams per litre and the 90th percentile shall not exceed 110 milligrams per litre;</i> <i>(c) The median total ammoniacal-nitrogen (NH4-N) concentration shall not exceed 8 milligrams per litre and the 90th percentile shall not exceed 25 milligrams per litre</i> <i>(d) The median total Kjeldahl nitrogen (TKN) concentration shall not exceed 12 milligrams per litre and the 90th percentile shall not exceed 30 milligrams per litre;</i> <i>(e) The median total phosphorus (TP) concentration shall not exceed 6 milligrams per litre and the 90th percentile shall not exceed 9 milligrams per litre; and</i> <i>(f) The median Escherichia coli (E.coli) concentration shall not exceed 3,500 MPN per 100 millilitres and the 90th percentile shall not exceed 17,000 MPN per 100 millilitres.</i> </p> <ul style="list-style-type: none"> • Reporting period not applicable.
6	<p>After the consent holder advises Waikato Regional Council of the successful commissioning of the side-stream MBR treatment process in writing, or by 1 December 2021, whichever occurs first, the consent holder shall ensure that the treated wastewater leaving the WWTP following UV treatment does not exceed the following limits:</p> <p style="margin-left: 40px;"> <i>(a) The median five-day carbonaceous biochemical oxygen demand concentration (cBOD5) shall not exceed 15 milligrams per litre and the 90th percentile shall not exceed 55 milligrams per litre; - Compliant.</i> <i>(b) The median suspended solids (TSS) concentration shall not exceed 16 milligrams per litre and the 90th percentile shall not exceed 110 milligrams per litre; - Compliant.</i> </p>

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Conditions Comments	
	<p>(c) The median total ammoniacal-nitrogen (NH₄-N) concentration shall not exceed 6 milligrams per litre and the 90th percentile shall not exceed 25 milligrams per litre; - Compliant.</p> <p>(d) The average annual total nitrogen (TN) load shall not exceed 2.6 kilograms per day; - Compliant.</p> <p>(e) The average summer (1 December to 31 May inclusive) total phosphorus (TP) load shall not exceed 0.5 kilograms per day; - Compliant.</p> <p>(f) The average winter (1 June to 30 November inclusive) TP load shall not exceed 1.1 kilograms per day; - Compliant.</p> <p>(g) The median <i>Escherichia coli</i> (E.coli) concentration shall not exceed 650 MPN per 100 millilitres. - Compliant.</p> <p>Advice note: For the avoidance of doubt:</p> <ul style="list-style-type: none"> • compliance with median concentration limits require that no more than 10 in any 20 consecutive monthly samples exceed the specified limit, and • compliance with 90th percentile limits requires that no more than one in any 10 consecutive monthly samples exceed the specified limit. <ul style="list-style-type: none"> • Please refer to Appendix 1 Effluent Quality Results.
7	<p>The consent holder shall ensure that after reasonable mixing the discharge does not cause any of the following effects in the Waikato River:</p> <p>(a) The production of conspicuous oil or grease films, scums, foams, or floatable or suspended materials;</p> <p>(b) Any conspicuous change in the colour or visual clarity;</p> <p>(c) Any emissions of objectionable odour;</p> <ul style="list-style-type: none"> • None reported for the 2023-24 reporting period.
8	<p>The operation, management and maintenance of the WWTP shall not result in noxious, dangerous, offensive or objectionable odour to the extent that it causes an adverse effect at or beyond the boundary of the site, in the opinion of a Waikato Regional Council enforcement officer.</p> <ul style="list-style-type: none"> • None reported for the 2023-24 reporting period.
9	<p>The consent holder shall monitor the flow rate of the treated wastewater leaving the WWTP and shall record the total daily (24-hour) discharge volume discharged.</p> <ul style="list-style-type: none"> • The flow rate of the treated wastewater leaving the WWTP is monitored as required and the Infrastructure Data reporting enable to record the daily volume and report to WRC monthly.
10	<p>Until the consent holder advises Waikato Regional Council of the successful commissioning of the side-stream MBR treatment process in writing, or by 1 December 2021, whichever occurs first, the consent holder shall take grab samples of the treated wastewater on a monthly basis from a point immediately after the UV disinfection system and analyse for all parameters as detailed within condition 5.</p>

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Conditions Comments	
	<ul style="list-style-type: none"> Reporting period is no longer applicable.
11	<p>After the consent holder advises Waikato Regional Council of the successful commissioning of the side-stream MBR treatment process in writing, or by 1 December 2021, whichever occurs first, the consent holder shall take grab samples of the treated wastewater on a fortnightly basis from a point immediately after the UV disinfection system and analyse for all parameters as detailed within condition 6.</p> <ul style="list-style-type: none"> The fortnightly sample collection of the treated wastewater has been implemented (see Appendix 1 Effluent Quality Results).
12	<p>All wastewater quality analyses shall be undertaken by an IANZ accredited or equivalent laboratory. All methods used shall be appropriate for the wastewater analyses undertaken.</p> <ul style="list-style-type: none"> All compliance monitoring samples are collected and analysed by the Watercare Services Lab (IANZ accredited).
13	<p>The consent holder shall forward the results of the monitoring undertaken via conditions 10, 11 and 12 to the Waikato Regional Council, via electronic means, on a three-monthly basis.</p> <ul style="list-style-type: none"> All monitoring results are reported to WRC at the required frequency with comments/investigation details included for any events or elevated results noted.
14	<p>The consent holder shall provide to the Waikato Regional Council and Ngāti Naho Trust a written report (the Annual Report) by 30 September each year, including as a minimum:</p> <p>(a) A summary of the monitoring results required by the conditions of these resource consents for year ending 30 June</p> <p>(b) A critical assessment of the monitoring data collected and comment on any emerging trends</p> <p>(c) Commentary on compliance with the conditions of this resource consent</p> <p>(d) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this resource consent and a description and a summary of the effectiveness of any remedial works undertaken,</p> <p>(e) Details of any Mātauranga Maori monitoring work developed and/or implemented in response to liaison work undertaken in accordance with condition 23, and</p> <p>(f) Any other issue considered relevant by the consent holder.</p> <ul style="list-style-type: none"> This report, the attached spreadsheet and the consent summary report are submitted in compliance with this condition. Ngāti Naho Liaison meetings have been held ad hoc through phone calls. Project dialogue continues with hapuu, the above-ground structure of an old reservoir at the Meremere Redoubt has been removed. Discussions regarding the installation of a pou are ongoing.
15	<p>The consent holder shall notify the Waikato Regional Council, Watercare Services Limited, Mercer Rowing Club, West End Rowing Club, Counties Manukau Rowing Club and Ngāti Naho Trust within 24 hours (where practicable) of the consent holder becoming aware of the limits specified in conditions 11 and 12 of this resource consent being exceeded, or any accidental discharge, plant breakdown or other circumstance which is likely to result in the limits of this consent being exceeded. The consent holder shall, within 10 working days of the incident occurring, provide a written report to the</p>

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	<p>Waikato Regional Council, identifying the breach, possible causes and any remedial actions and steps to ensure future compliance.</p> <ul style="list-style-type: none"> • None reported for the 2023-24 reporting period.
16	<p>The consent holder shall prepare an Operations and Management Plan (OMP). The objective of the OMP is to provide a framework for the operation and management of the wastewater treatment and discharge systems to ensure compliance with the conditions of consent. The OMP shall be lodged with Waikato Regional Council within 12 months of commencement of these consents, and shall be reviewed and updated every three years and as required as a result of any changes to the Wastewater Treatment Plant (WWTP) operation or management.</p> <p>As a minimum the OMP shall include:</p> <ul style="list-style-type: none"> (a) A description of the Meremere WWTP; (b) A description and schedule of the routine inspection, monitoring and maintenance procedures to be undertaken; (c) A description of the sampling location/s and methodology for sampling the treated wastewater discharge; (d) An Avian Botulism Management Plan (ABMP). The objective of the ABMP shall be to provide a framework to be adopted to remedy or mitigate any adverse effects associated with an outbreak of avian botulism at the Meremere WWTP. The ABMP shall include (as a minimum) the monitoring methods and response actions that will be adopted in the event of an outbreak of avian botulism at the Meremere WWTP site; (e) A schedule of the critical aspects of the Meremere WWTP and the detailed response and contingency plans to remedy any possible variations from normal plant operation that could potentially affect the quality of the discharges to air, land and water; (f) Details of contingency plans and procedures to address power or equipment failure at the treatment plant; (g) Procedures for recording routine maintenance and all major repairs that are undertaken; (h) Details of the chain of command, responsibility and notification protocols; (i) Full contact details for a nominated liaison person(s) who will manage the public information system and be the point of contact for enquiries relating to the WWTP; and (j) The contact details of the nominated liaison person(s) shall be identified on the Waikato District Council website. <ul style="list-style-type: none"> • An Operations & Management Plan has been prepared for this site and is attached as Appendix 5 in the 2021-2022 Annual Report. • An organisation wide Botulism Management Plan is in place for the Meremere WWTP site was attached as Appendix 6 in the 2021-2022 Annual Report.
17-18	<p>The consent holder shall maintain a Complaints Register for any complaints made about the treatment and discharge operations received by the consent holder. The Register shall record:</p> <ul style="list-style-type: none"> (a) The date, time and duration of the alleged event/incident that has resulted in the complaint (b) The location of the complainant when the complaint was detected by the complainant (c) The possible cause of the complaint including any relevant event/incident and its duration (d) In relation to odour, the weather conditions and wind direction at the site when the odour was detected by the complainant, and

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	<p>(e) Any remedial action undertaken by the consent holder in response to the complaint</p> <ul style="list-style-type: none"> Councils CRM database records all complaints from the public. No complaints were received for the Meremere WWTP. Appendix 2 is attached as evidence of a complaints register.
19	<p>The consent holder shall prepare an Odour Management Plan. The objective of the Odour Management Plan is to provide a framework for the operation and management of the wastewater treatment to ensure compliance with condition 8. The Odour Management Plan shall be lodged with Waikato Regional Council within 12 months of commencement of these consents, and shall be reviewed and updated every three years and as required as a result of any changes to the Wastewater Treatment Plant (WWTP) operation or management.</p> <p>As a minimum the Odour Management Plan shall include:</p> <ul style="list-style-type: none"> (a) The identification of all fugitive and point sources for discharges of odour into air, including a map showing the location of each source (b) Procedures to minimise discharges of contaminants into air, including details of the inspection, maintenance, monitoring and contingency procedures in place for all emissions control equipment at the site (c) Details of management and monitoring practices in place to minimise discharges of odour into air, and (d) The methodologies for routine odour monitoring <ul style="list-style-type: none"> There are plans underway to review the Operations & Management Plan, which will include the requirements the Odour Management Plan.
20	<p>The consent holder shall maintain the existing sign in the vicinity of the discharge to the Waikato River, in such a way that it is conspicuous to river users, advertising of the presence of the treated wastewater discharge.</p> <ul style="list-style-type: none"> Signs in Place, two identical back-to-back signs, one facing the river and one facing the bank (Attached in the 2021-2022 Annual Report as Appendix 7).
21	<p>The consent holder shall manage and maintain the integrity of the oxidation pond and wetland and other structures that form any part of the wastewater treatment process so as to minimise the volume of seepage from such structures as far as practicable.</p> <ul style="list-style-type: none"> None reported for the 2023-24 reporting period.
22	<p>Within six months of the commencement of this consent, the consent holder shall invite Ngāti Naho Trust to establish and retain for the duration of this consent the Ngāti Naho Liaison Group. The consent holder shall provide reasonable organisation and administrative support to facilitate the development and ongoing role of the Ngāti Naho Liaison Group.</p> <ul style="list-style-type: none"> Project dialogue continues with hapuu, the above-ground structure of an old reservoir at the Meremere Redoubt has been removed. Discussions regarding the installation of a pou are ongoing.
23	<p>The Ngāti Naho Liaison Group shall establish its own meeting protocols but shall be invited to meet at least twice annually (or as otherwise required) to exercise the functions set out within this condition. The functions of the Ngāti Naho Liaison Group shall include, but not be limited to, the following matters:</p>

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Conditions Comments	
	<p>(a) Reviewing the general performance of the Meremere WWTP and the treated wastewater discharge including any changes to the operation of the WWTP</p> <p>(b) Reviewing the results of monitoring and the associated assessment of monitoring information carried out in accordance with the conditions of this consent</p> <p>(c) Receiving and commenting on the Annual Report</p> <p>(d) Receiving and commenting on the Operations and Management Plan</p> <p>(e) Receiving and commenting on the Complaints Register</p> <p>(f) Receiving and commenting on the Odour Management Plan</p> <p>(g) Discussion of any physical measures and initiatives further needed to address actual or potential effects of the WWTP discharge, including cultural/Mātauranga Maori monitoring and the development/provision of cultural markers</p> <p>(h) Considering any other issues of concern to the Ngāti Naho Trust relating to the WWTP</p> <ul style="list-style-type: none"> • Project dialogue continues with hapuu, the above-ground structure of an old reservoir at the Meremere Redoubt has been removed. Discussions regarding the installation of a pou are ongoing.
24	<p>The consent holder shall provide minutes of each Ngāti Naho Liaison Group meeting to the Waikato Regional Council and the members of the Ngāti Naho Liaison Group within four weeks of each meeting which will include but not be limited to:</p> <ul style="list-style-type: none"> • (a) A record of the discussions at the meeting <ul style="list-style-type: none"> (b) A record of any suggestions/issues provided or raised by the members of the Ngāti Naho Liaison Group including: (i) What actions are proposed by the consent holder to respond to suggestions made by the Ngāti Naho Liaison Group, and (ii) Where no actions are proposed to respond to suggestions, the reasons why not • The meetings were held as required per the consent condition.