

# Site Compliance Report

Site No:	REG602505	Non Dairy
Site Owner:	Thames Coromandel District Council	
Site Name:	Hahei Sewage: Hahei	
Date:	20 July 2020	

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## 1 INTRODUCTION

The following resource consent is held for the site:

Resource Consent	Status	Description	Commenced	Expiry
AUTH135636.01.01	Current	Discharge of treated municipal wastewater to the Wigmore Stream and associated seepage to groundwater from treatment ponds	7/12/2017	15/12/2030

This report examines the level of compliance of Thames Coromandel District Council with the selected conditions of the resource consent.

## 2 BACKGROUND

The township of Hahei is located within Mercury Bay on the eastern coast of the Coromandel Peninsula. The population on a day-to-day basis is approximately 450 persons (TCDC Population Growth Study, 2010), however like many holiday destinations in the district, this swells over the summer and public holidays. Approximately a third of the Hahei catchment is serviced by the Hahei WWTP.

The Hahei WWTP uses an 'oxidation pond' system to provide aerobic breakdown of organic matter in wastewater. This consists of an inlet screen, aeration pond and retention pond. The aeration pond consists of 3 aerators, however due to power limitations, only two aerators can be operated at once. The retention pond has baffle curtains to increase retention time. The total designed retention time in both ponds is 55 days, however during summer peak, it is expected that this drops to 16-23 days.

A membrane filtration unit (MFU) was retrofitted to the existing system in 2007 to treat wastewater to a higher quality prior to discharge. It is anticipated that at full operation, the MFU can process a maximum of 600 cubic metres of wastewater per day. Finally, wastewater is discharged to the Wigmore Stream via a perforated pipe diffuser.

A new consent was issued in December 2017 which saw more stringent criteria for the quality of discharge from the site.

### Compliance History

The previous audit for the period 1 April 2017 to 31 March 2018 (completed in March 2019) found the site to be in **Significant non-compliance**. The corrective actions below were required in the audit report and a letter of direction was issued. Comments on actions undertaken (or not) are indicated in *italics*. A follow up audit based on the letter of direction was undertaken in December 2019. As a result, an abatement notice and formal warning was issued.

Resource consent	Condition Number	Action Required
AUTH135636.01.01  Discharge Treated Wastewater to Wigmore Stream	8 Discharge Limits	Please provide a formal update within 1 month of receiving this report explaining why these parameters have been breached and what has been done to rectify the breaches.
		<i>A performance issues report was provided in April 2019 (WRC document <a href="#">14197922</a>) which addressed issues around discharge quality non-compliance and the related plant performance issues, as well as remedial works undertaken or planned. In March 2020 TCDC advised the plant was operating within the discharge limit parameters (WRC document <a href="#">16034352</a>. See below for audit of this data.</i>
	15 Low flow gauging	Please provide WRC within 1 month of receiving this report with an update with whether this condition has now been met and if not an explanation as to why not.
		<i>A discussion on the flows and requirements was provided by TCDC. A low flow gauging was undertaken in February 2019. (WRC document <a href="#">14194640</a>)</i>
	16 Discharge and stream sampling	Please provide a comprehensive formal reply showing how this criteria set out in this condition has been met or otherwise within one month of receiving this report.
		<i>A discussion was provided in April 2019 (WRC document <a href="#">14197528</a>). See below for audit of the data provided subsequent to this.</i>
	20 Discharge and stream sampling report (six monthly)	Please provide a comprehensive formal reply showing how this criteria set out in condition 16 has been met or otherwise within one month of receiving this report.
		<i>A reply was received regarding this requirement in April 2019 (WRC document <a href="#">14197528</a>). See below for audit of this condition.</i>
	21 Annual Report	Please provide the following information to the full satisfaction of this condition within one month of receiving this report. <ul style="list-style-type: none"> <li>•a summary of the monitoring results required by condition 16</li> <li>•critical analysis of the information in terms of compliance and environmental effects</li> <li>•any reasons for non-compliance or difficulties in achieving compliance with condition 8</li> <li>•There is no mention if any complaints have been received or whether there is a system in place to record them</li> </ul>
		<i>A reply was received in April 2019 (WRC document <a href="#">14197528</a>). WRC advised this was not the “critical analysis” required, rather statements of what had occurred. See below for audit of this condition subsequent to this.</i>
	22 Ecological Assessment	Please note that an ecological assessment report is due as per this condition by 1 June 2019
		<i>This report has been supplied (WRC document <a href="#">16205866</a>) “Hahei Wastewater Treatment Plant: Ecological monitoring of the Wigmore Stream 2017-19” prepared by Tonkin &amp; Taylor Ltd, October 2019</i>
	24 Management Plan	Please confirm whether this document has been completed and send a copy to Waikato Regional Council within one month of receiving this report.
		<i>This has not been provided.</i>

28 Complaints Register	Please provide Waikato Regional Council with evidence of the complaints register and the process that occurs when a complaint is received.
	<i>TCDC hold a complaints register through a RFS (Request for Service) system. TCDC extract this data upon request or as part of the annual report process.</i>
30 Upgrade works	Please report to WRC how these works have been fully implemented within one month of receiving this report.
	<i>A Performance Issues Report has been provided in April 2019 (WRC document <a href="#">14197922</a>)</i>

RA Number	Status	Date	Site Compliance
Follow up RA235664	Complete	18/12/2019	<a href="#">Significant non-compliance</a>
RA242800	Complete	5/03/2019	<a href="#">Significant non-compliance</a>
RA219032	Complete	9/05/2017	<a href="#">High level of compliance</a>
RA203153	Complete	28/05/2015	<a href="#">High level of compliance</a>

### 3 COMPLIANCE ASSESSMENT

Unless otherwise specified in this document this assessment covers the period from **1 April 2019 to 31 March 2020**.

Please note that a description of the classification system used to describe compliance status is given in Appendix 1 of this report.

#### AUTH135636.01.01 - Water - sewage

Activity Authorised: Discharge of treated municipal wastewater to the Wigmore Stream and associated seepage to groundwater from treatment ponds		
Condition No.	Description	
5	The maximum volume of treated wastewater discharged to the Wigmore Stream shall not exceed 700 cubic metres in any 24 hour period.	
Evidence	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020	
Status Reasoning	The data in appendix A shows the volume did not exceed 375 cubic metres per day during the assessed period. Data is missing for November and early December 2019 due to work undertaken on the SCADA and historian systems. Based on the flow evidence provided it is unlikely the maximum discharge was exceeded during this time.	
Action Required	Ensure all data is recorded	Full Compliance
6	The maximum discharge rate of treated wastewater to the Wigmore Stream shall not exceed 8.1 litres per second.	
Evidence	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020	
Status Reasoning	Flow rate is currently not available through TCDC's data management system. The annual report identifies this will be reviewed.	

Action Required	Confirm when flow rate monitoring will be available. By <b>31 October 2020</b>		Low Priority Non-Compliance																																				
7	The consent holder shall ensure that all waste entering, and treated in, the Hahei Wastewater Treatment Plant, goes through all stages of treatment available at the plant prior to discharge. This includes the Micro Filtration Unit.																																						
Evidence	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 High rainfall event documents ( <a href="#">15138144</a> , <a href="#">15137998</a> , <a href="#">15136921</a> , <a href="#">15118816</a> , <a href="#">15115268</a> , <a href="#">15115549</a> , <a href="#">15102164</a> )																																						
Status Reasoning	Two significant rainfall events on 9/10 and then on 13/14 September 2019 resulted in the controlled discharge of 750m <sup>3</sup> of diluted partially treated wastewater to the old disposal beds. This was directly to avoid the potential overtopping of the maturation pond to the adjacent Wigmore Stream. Sampling was undertaken and showed no significant difference between upstream and downstream samples, except for minor increases in nitrogen and suspended solids. Microbiological results decreased. During this time the MFU was bypassed due to capacity issues. I understand the new membrane cassette was installed and both cassettes now provide high quality effluent. This non-compliance with limits resulted in a less than minor increase in the level of effects authorized.																																						
Action Required	Ensure all wastewater is treated through the MFU.		Low Priority Non-Compliance																																				
8	The following limits shall apply to the discharge to the Wigmore Stream during the term of this consent:																																						
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	<p><b>Ammoniacal Nitrogen</b></p> <p>The 90<sup>th</sup> percentile for ammoniacal nitrogen has been above the required limit for significant parts of the audit period, with a range between 10.4 g/m<sup>3</sup> (compliant) and 17.2 g/m<sup>3</sup> (~15% above limit). The running average for ammoniacal nitrogen remained in compliance throughout the audit period.</p> <p><b>TKN</b></p> <p>The 90<sup>th</sup> percentile and running average limits for TKN were in compliance this year, which is an improvement on the last audit.</p>	
<b>Action Required</b>	Ensure all required discharge standards are met.	<b>Medium Priority Non-Compliance</b>
11	<p>A flow meter shall be installed to record, on a continuous basis, the quantity of effluent discharged on a daily basis. The device shall have a reliable calibration to water flow and shall be maintained to an accuracy of +/- 5%. Access to the meter shall be made available to the staff and agents of the Waikato Regional Council at all reasonable times.</p>	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) and Appendix B: Hahei WWTP Outflow Meter (WRC doc <a href="#">16836622</a> ) provided on 17 June 2020	
<b>Status Reasoning</b>	The certificate supplied verifies the calibration of the meter.	
<b>Action Required</b>	No corrective actions	<b>Full Compliance</b>
12	<p>Calibration of the flow meter shall be undertaken by the consent holder, at the request of the Waikato Regional Council, if during the term of this consent the accuracy of the meter is considered less than that required by condition 11. The calibration shall be undertaken by an independent qualified person and evidence documenting the calibration shall be forwarded to the Waikato Regional Council within one month of the calibration being completed.</p>	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) and Appendix B: Hahei WWTP Outflow Meter (WRC doc <a href="#">16836622</a> ) provided on 17 June 2020	
<b>Status Reasoning</b>	This condition does not require action	
<b>Action Required</b>	No corrective actions	<b>Not assessed</b>
14	<p>Within 3 months of the commencement of this consent the consent holder shall install and monitor a flow recorder which shall, as a minimum, record flow in the Wigmore Stream in litres per second every 15 minutes at a suitable location upstream of the discharge authorised by this consent. The purpose of the flow monitoring is to establish a reliable correlation to flows in the Opitonui River.</p> <p>The datalogger shall be linked by telemetry to the Waikato Regional Council. It shall be cross referenced to the Waikato Regional Council flow recorder on the Opitonui River downstream of Awaroa Stream Confluence (Waikato Regional Council Site Number 660.1, Map Reference NZTM 1832431E 5926826N). The necessity for flow recording may be modified at any time following approval in writing from the Waikato Regional Council following a request in writing from the consent holder to do so. The approval process will consider a written report by the consent holder with data and explanation to show that sufficient flow monitoring of the Wigmore Stream has been obtained to have a scientifically reliable correlation to flows in the Opitonui River, or which demonstrates the inability to obtain a scientifically reliable correlation following the collection of sufficient flow data. The minimum period of flow monitoring shall include a summer/autumn period with a prolonged low flow recession.</p>	
<b>Evidence</b>	Email dated 30 April 2020 from Derek Woods (WRC document <a href="#">16860970</a> )	
<b>Status Reasoning</b>	The flow recorder was installed and flow has been provided for the periods Jan-May 2017 and March-October 2018. Unfortunately, the equipment has been the subject of ongoing vandalism and was removed after October 2018. In addition, the landowner for the property has advised he no longer will allow access through his property to the site. Upstream of this location the stream is dry for long periods, downstream is tidally affected.	

	<p>I have sought advice from WRC scientist Dr Sung Soo Koh (WRC doc <a href="#">16859280</a>). He advises that this information is more useful in the long term for the next replacement consent process (~2030). There are no consent conditions that rely on this information to inform or assess compliance.</p> <p>It is my view, supported by Dr Koh, that datalogging under consent condition may now be ceased, for the reasons outlined. While the intent of this condition has not been fully met, the logistical challenges of implementing this monitoring outweigh the benefit to the consent or the environment.</p> <p>It is recommended the consent holder consider carefully how information to inform future consent processes is collected. It is recommended that spot gauging is still undertaken for the purposes of accumulating science for future consent processes.</p>																
<b>Action Required</b>	No action required. No further monitoring is required under this condition.	<b>Not assessed</b>															
15	<p>In addition to the flow monitoring required by condition 14 of this consent, the consent holder shall undertake manual low-flow gauging in the Wigmore Stream at least once during each calendar year when flows are at a seasonal summer low and the flow recorder site is operational. Where there is a prolonged period of summer low flows, the consent holder will repeat the low-flow gauging to ensure data at lower stream flows are measured. The low-flow gauging shall be undertaken at a suitable location upstream of the discharge authorised by this consent at or near the flow recorder site. The purpose of the low-flow gauging is to verify the flow records measured by the flow recorder. The low-flow gauging shall be undertaken by an appropriately qualified and experienced person. A copy of the results of the gauging(s) shall be forwarded to Waikato Regional Council with the written report required in condition 14 and 21 of this consent. The requirement for manual stream flow monitoring under this condition can cease when approval in writing from the Waikato Regional Council under condition 14 has been provided.</p>																
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<b>Action Required</b>	No action required. No further monitoring is required under this condition however it is recommended.	<b>Not assessed</b>															
16	<p>The consent holder shall measure and characterise the quality, quantity and variability of treated effluent being discharged to the Wigmore Stream and the effects of the discharge on the quality and variability of surface water. To this end, the consent holder shall undertake sampling and analysis of the discharge and surface water as follows:</p> <table border="1"> <thead> <tr> <th>Frequency</th><th>Sample type and/or location</th><th>Parameter</th></tr> </thead> <tbody> <tr> <td>a) Every 15 minutes</td><td>Wigmore Stream  Refer to condition 14.</td><td> <ul style="list-style-type: none"> <li>Water level</li> <li>Instantaneous flow</li> </ul> </td></tr> <tr> <td>b) Daily</td><td>Treatment Plant</td><td> <ul style="list-style-type: none"> <li>Rainfall</li> </ul> </td></tr> <tr> <td>c) Daily</td><td>Discharge</td><td> <ul style="list-style-type: none"> <li>Volume</li> <li>Instantaneous peak flow</li> <li>Average flow</li> </ul> </td></tr> <tr> <td>d) Weekly - during the period from the start of the third week of December to the start of the third week of February - monthly otherwise.</td><td> <ul style="list-style-type: none"> <li>Inlet of MFU</li> <li>Discharge, following all treatment stages and prior to entering the Wigmore Stream</li> <li>Wigmore Stream 50 metres upstream of discharge</li> <li>Wigmore Stream downstream at Pa Road bridge</li> </ul> <p>Downstream samples to be collected within the period 1 hour either side of local low tide during daylight hours</p> </td><td> <ul style="list-style-type: none"> <li>Total Ammoniacal Nitrogen</li> <li><i>Escherichia coli</i></li> <li>Enterococci</li> <li>Conductivity</li> <li>pH</li> <li>Sample date and time</li> <li>Time of low tide occurrence closest to sample time</li> </ul> </td></tr> </tbody> </table>		Frequency	Sample type and/or location	Parameter	a) Every 15 minutes	Wigmore Stream  Refer to condition 14.	<ul style="list-style-type: none"> <li>Water level</li> <li>Instantaneous flow</li> </ul>	b) Daily	Treatment Plant	<ul style="list-style-type: none"> <li>Rainfall</li> </ul>	c) Daily	Discharge	<ul style="list-style-type: none"> <li>Volume</li> <li>Instantaneous peak flow</li> <li>Average flow</li> </ul>	d) Weekly - during the period from the start of the third week of December to the start of the third week of February - monthly otherwise.	<ul style="list-style-type: none"> <li>Inlet of MFU</li> <li>Discharge, following all treatment stages and prior to entering the Wigmore Stream</li> <li>Wigmore Stream 50 metres upstream of discharge</li> <li>Wigmore Stream downstream at Pa Road bridge</li> </ul> <p>Downstream samples to be collected within the period 1 hour either side of local low tide during daylight hours</p>	<ul style="list-style-type: none"> <li>Total Ammoniacal Nitrogen</li> <li><i>Escherichia coli</i></li> <li>Enterococci</li> <li>Conductivity</li> <li>pH</li> <li>Sample date and time</li> <li>Time of low tide occurrence closest to sample time</li> </ul>
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		and while discharge is operating.	
	e) Monthly – to coincide with d)	<ul style="list-style-type: none"> <li>• Inlet of MFU</li> <li>• Discharge, following all treatment stages and prior to entering the Wigmore Stream</li> <li>• Wigmore Stream 50 metres upstream of the discharge</li> <li>• Wigmore Stream downstream at Pa Road bridge</li> </ul> <p>Downstream samples to be collected within the period 1 hour either side of local low tide during daylight hours and while discharge is operating.</p>	<ul style="list-style-type: none"> <li>• cBOD<sub>5</sub></li> <li>• Nitrate Nitrogen</li> <li>• Suspended solids</li> <li>• Total Kjeldahl Nitrogen</li> <li>• Soluble Reactive Phosphorus</li> <li>• Total Phosphorus by Persulphate Digestion</li> <li>• Turbidity</li> <li>• Sample date and time</li> <li>• Time of low tide occurrence closest to sample time</li> </ul>
	f) Once per year in January or February	<ul style="list-style-type: none"> <li>• Wigmore Stream 50 metres upstream of the discharge</li> <li>• Wigmore Stream downstream at Pa Road bridge</li> </ul> <p>Refer to condition 19 for sampling and assessment methodology.</p>	<ul style="list-style-type: none"> <li>• Aquatic Macroinvertebrate assessment</li> <li>• Habitat and aquatic plant assessment</li> <li>• Sample date and time</li> <li>• Time of low tide occurrence closest to assessment time</li> </ul>
	g) At least once per year – to coincide with summer low flows	<p>Wigmore Stream</p> <p>Additional gauging each summer may be required if low flow conditions are prolonged, to capture a series of low flow records. Refer to condition 15.</p>	<ul style="list-style-type: none"> <li>• Flow (via flow gauging)</li> <li>• Sample date and time</li> </ul>
	h) Once every five years in January or February, commencing 2019	<ul style="list-style-type: none"> <li>• Wigmore Stream 50 metres upstream of the discharge</li> <li>• Wigmore Stream downstream at Pa Road bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Fish populations</li> </ul>
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020		
<b>Status Reasoning</b>	The Annual Report outlines missing data during some periods related to maintenance of the plant. In addition, peak flow data for the effluent is not available. Gauging of the Wigmore Stream has not been provided.		
<b>Action Required</b>	Ensure all required data is collected and reported		<b>Low Priority Non-Compliance</b>
17	<p>All samples taken in relation to monitoring under this consent shall be collected by a suitably qualified and experienced person(s) with relevant training in the sampling and transporting of water quality samples and in accordance with the Monitoring Implementation Plan titled “Wastewater Sampling at Hahei WWTP and Wigmore Stream” by United Water, dated 1-04-2009 (Waikato Regional Council document number <a href="#">1472702</a>), or any subsequent update.</p> <p>This plan shall detail methods and map locations for how, when and where sampling will take place. An updated Monitoring Implementation Plan shall be provided to the Waikato Regional Council within three months of commencement of this consent, and at two yearly intervals thereafter, or more often if any method or location changes. The Waikato Regional Council shall be provided with an updated copy of the Monitoring Implementation Plan within one month of</p>		



	any update to the Plan.	
<b>Evidence</b>	Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	The plan requires updating. This is due every two years (Dec 2019 was two years since commencement of consent), and also given the changes to monitoring on the Wigmere Stream, this plan requires updating.	
<b>Action Required</b>	<b>Provide an Updated Monitoring Implementation Plan: Due 1 December 2020.</b>	<b>Low Priority Non-Compliance</b>
19	All ecological surveys carried out in relation to monitoring under this consent shall be undertaken by a suitably qualified and experienced person(s) with relevant training in ecological monitoring and assessment. The sampling and analysis methodology shall be consistent with previous surveys undertaken at this site, as summarised in the report titled "Hahei Wastewater Treatment Plant Assessment of Ecological Effects" by Kessels Ecology, dated 24 May 2017 (Waikato Regional Council document number <a href="#">11016880</a> ). The sampling and analysis methodology may be modified following approval in writing from the Waikato Regional Council.	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) and Appendix D (WRC doc <a href="#">16837228</a> ) provided on 17 June 2020	
<b>Status Reasoning</b>	2020 Hahei Wastewater Treatment Plant Ecological Monitoring Data was provided as Appendix D to the Annual Report. Tonkin & Taylor produced the report.	
<b>Action Required</b>	No corrective actions	<b>Full Compliance</b>
20	The consent holder shall provide to the Waikato Regional Council a data report by 1 December each year that this consent is current. This report shall include all data collected under condition 16 of this consent for the period 1 April to 30 September of the current year and shall identify any non-compliance within that period.	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	No six monthly report was provided. I understand reporting system improvements are being implemented which will ensure this occurs.	
<b>Action Required</b>	Ensure six monthly reporting is provided by 1 December each year	<b>Minor technical non-compliance</b>
21	<p>The consent holder shall provide to the Waikato Regional Council a written monitoring report by 1 June each year that this consent is current for the 12 month period from 1 April of the preceding year to 31 March of the current year. As a minimum this report shall include the following:</p> <ol style="list-style-type: none"> <li>1. a summary of the monitoring results required by condition 16 of this consent for the 12 month period from 1 April of the preceding year to 31 March of the current year and a critical analysis of the information in terms of compliance and environmental effects;</li> <li>2. a comparison of data with previously collected data identifying any emerging trends;</li> <li>3. comment on compliance, and any reasons for non-compliance or difficulties in achieving compliance, with condition 8 of this consent;</li> <li>4. comment on any works that have been undertaken, or that are proposed to be undertaken in the upcoming year, to improve the environmental performance of the treatment and/or disposal system;</li> <li>5. report on and discuss any complaints received regarding the treatment and/or discharge of treated effluent; and</li> <li>6. any other issues considered important by the consent holder.</li> </ol>	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020	
<b>Status Reasoning</b>	The report was received slightly late but included the required information	
<b>Action Required</b>	Ensure the report is provided by 1 June each year.	<b>Minor technical non-compliance</b>
22	The consent holder shall provide to the Waikato Regional Council an ecological assessment report by 1 June every two years for the duration of this consent. This report shall be prepared by a	



	<p>suitably qualified person or persons with relevant training in ecological monitoring and assessment. As a minimum this report shall include the following:</p> <ol style="list-style-type: none"> <li>1. a summary of the ecological monitoring and water quality results required by condition 16 for the preceding two years;</li> <li>2. a comparison of data with previously collected data identifying any emerging trends;</li> <li>3. a critical analysis of the current ecological health of the Wigmore Stream, the potential causes of any degradation of the stream, the effects of the discharge authorised by this consent on the Wigmore Stream and downstream coastal waters;</li> <li>4. any other issues considered important by the ecologist.</li> </ol>	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	The required report was provided in 2019 (WRC document <a href="#">16205866</a> ). It will be required again next year (2021).	
<b>Action Required</b>	No corrective actions	<b>Not assessed</b>
23	<p>In the event of any bypasses, other extraordinary events or failure of any critical part of the treatment plant, the consent holder shall manage the treatment plant and discharge to the Wigmore Stream in accordance with the Contingency Plan titled "Hahei Wastewater Treatment Plant Contingency Plan 2015" by Veolia (Waikato Regional Council document number 3584298 and 3584310), or any subsequent update.</p> <p>An updated plan shall be provided to the Waikato Regional Council by 1 June 2018, and at three yearly intervals thereafter. The consent holder shall engage appropriately experienced persons to compile any update to the Contingency Plan, and it shall identify measures and notification protocols to be undertaken by the consent holder that will take into account any potential adverse effects on the Wigmore Stream and users, including but not limited to ecological effects, downstream recreational use, and the Medical Officer of Health.</p>	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	The Contingency Plan requires updating. The 2015 version contains reference to now expired consent AUTH117888	
<b>Action Required</b>	Provide updated Contingency Plan by 1 December 2020	<b>Low Priority Non-Compliance</b>
24	<p>The consent holder shall provide the Waikato Regional Council with a Management Plan which details the procedures that will be implemented to operate in accordance with the conditions of this resource consent and the procedures that will be put into place to maximise wastewater treatment and minimise odour production. This plan shall be lodged with the Waikato Regional Council within 3 months of the commencement of this consent, and shall be reviewed and updated as a minimum annually. The plan shall address, but may not be limited to, the following:</p> <ol style="list-style-type: none"> <li>1. a description of the entire treatment and disposal system facility and how it is operated;</li> <li>2. a description of routine maintenance procedures to be undertaken;</li> <li>3. an outline of the methods to be utilised to monitor the treatment plant in an operational sense including: monitoring of influent waste water and monitoring of treatment performance;</li> <li>4. a description of the methods to be used to ensure that sampling of the discharge as required by condition 16 of this consent is representative of overall discharge quality;</li> <li>5. specific management procedures for the efficient functioning of the treatment system including Micro Filtration Unit, including measures to ensure compliance with condition 8 of this consent relating to discharge quality parameters;</li> <li>6. procedures for recording routine maintenance and all repairs that are undertaken;</li> <li>7. contingency measures in place to deal with unusual events;</li> <li>8. chain of command and responsibility, including contact details;</li> <li>9. other actions necessary to comply with the requirements of this resource consent;</li> <li>10. procedures for improving and/or reviewing the management plan.</li> </ol>	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	The Management Plan that was required within three months of commencement of consent has not been provided. In the last audit report it is noted it was currently being updated. Please	

<b>Action Required</b>	provide this as soon as possible.	
	Provide the required Management Plan by 1 December 2020	<b>Low Priority Non Compliance</b>
26	<p>The consent holder shall notify the Waikato Regional Council as soon as practicable, and as a minimum requirement within 24 hours, of any discharge to Wigmore Stream from a source that has bypassed any part of the treatment system, or any discharge to the redundant disposal beds and/or redundant storage pond. The consent holder shall, within 7 days of the discharge occurring, provide a written report to the Waikato Regional Council, identifying the extent of the discharge, possible causes, steps undertaken to remedy the effects of the discharge and measures that will be undertaken to ensure future compliance with this consent.</p>	
<b>Evidence</b>	<p>Annual report (WRC doc <a href="#">16836025</a>), Appendix A (WRC doc <a href="#">16837611</a>) provided on 17 June 2020 Review of WRC file 60 25 05A</p> <p>High Rainfall Event September 2019 – various WRC documents <a href="#">15138144</a> <a href="#">15137998</a> <a href="#">15136921</a> <a href="#">15118816</a> <a href="#">15115268</a> <a href="#">15115549</a> <a href="#">15102164</a></p> <p>Report on partially treated effluent to disposal beds at Hahei WWTP (WRC doc <a href="#">15137998</a>, <a href="#">15370118</a>)</p>	
<b>Status Reasoning</b>	A high rainfall event on 15 September 2019 occurred and discharge of partially treated effluent to disposal beds occurred. WRC was informed prior to any discharge occurring and provided. Liaison with WRC on operational compliance matters is generally good.	
<b>Action Required</b>	No corrective actions	<b>Full Compliance</b>
27	<p>The consent holder shall maintain and keep a complaints register for all complaints, including discharge, water quality and odour complaints regarding operations at the site received by the consent holder. The register shall record:</p> <ol style="list-style-type: none"> <li>1. the date, time and duration of the event that has resulted in a complaint,</li> <li>2. any corrective action undertaken by the consent holder in response to the complaint, including actions taken to prevent similar events in the future.</li> <li>3. the location of the complainant when the event was detected,</li> <li>4. the possible cause of the event, and</li> <li>5. the weather conditions and wind direction at the site when the event allegedly occurred</li> </ol>	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	A complaints register is kept	
<b>Action Required</b>	No corrective actions	<b>Full Compliance</b>
28	<p>The register outlined in condition 27 shall be available to the Waikato Regional Council at all reasonable times. Waikato Regional Council shall be informed of complaints received by the consent holder which may infer non-compliance with the conditions of this resource consent to the Waikato Regional Council within 24 hours of the complaint being received. In addition, the consent holder shall provide written information on the incident including all of the details required by (a) to (e) of condition 27 of this consent, which shall be forwarded to the Waikato Regional Council within 5 days of the complaint being received.</p>	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	No complaints have been received	
<b>Action Required</b>	Ensure a summary of the complaints register is included in the annual report	<b>Full Compliance</b>
29	<p>The consent holder shall be responsible for ensuring that the Wigmore Stream, from the treated wastewater discharge point to its mouth, is kept clear of debris and that the stream mouth is not blocked by sand, to the extent that the flow of the Wigmore Stream is unimpeded into the coastal marine area. The consent holder's obligations in respect of this condition are limited to the works</p>	

	that can be undertaken without the need for resource consent under the relevant rule(s) of the Waikato Regional Coastal Plan.	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	WRC has not assessed the site or this consent condition however the annual report and appendix D (ecological monitoring) both refer to multiple clearing events.	
<b>Action Required</b>		<b>Not assessed</b>
30	The consent holder shall implement the treatment plant upgrade works detailed in the Technical Memo titled "Hahei WWTP Consent Ammonical Nitrogen Reduction" by Harrison Grierson, dated 14 June 2017 (Waikato Regional Council document number 10628287), or equivalent upgrades, to ensure the wastewater discharge limits in condition 8 are met. The works shall include, as a minimum, installation of additional aeration in the Aeration Pond. These works shall be fully implemented within one year of the commencement of this consent.	
<b>Evidence</b>	Annual report (WRC doc <a href="#">16836025</a> ), Appendix A (WRC doc <a href="#">16837611</a> ) provided on 17 June 2020 Review of WRC file 60 25 05A	
<b>Status Reasoning</b>	Required works have been undertaken. Recent power supply upgrades have been undertaken to address prior inadequacies. Compliance with ammoniacal nitrogen is outlined in condition 8 above – this is showing an improving trend. Further assessment of compliance will be undertaken after ongoing sampling results are provided.	
<b>Action Required</b>	No corrective actions	<b>Full Compliance</b>
31	The consent holder shall provide a written report on or before the fifth and tenth anniversaries of the commencement of this consent that shall outline: <ol style="list-style-type: none"> <li>1. what investigations have been undertaken to date to identify the long-term strategy for wastewater treatment and disposal options at Hahei upon the expiry of this consent,</li> <li>2. what investigations have been undertaken or identified in relation to potential effects of disposal options being considered for wastewater at Hahei upon the expiry of this consent,</li> <li>3. what consultation has been undertaken in relation to potential treatment and disposal options for wastewater at Hahei upon the expiry of this consent.</li> </ol>	
<b>Action Required</b>	I note this report will be due on or before 7 December 2022	<b>Not assessed</b>
33	The Waikato Regional Council may, within the year of the second, fifth and tenth anniversary of the commencement of this consent, serve notice on the consent holder under section 128 (1) of the Resource Management Act 1991, of its intention to review the conditions of this resource consent for the following purposes: <ol style="list-style-type: none"> <li>1. to review the effectiveness of the conditions of this resource consent in avoiding or mitigating any adverse effects on ground or surface water quality from the exercise of this resource consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions; or</li> <li>2. if necessary and appropriate, to require the holder of this resource consent to adopt the best practicable option to remove or reduce adverse effects on surface water quality due to the discharge; or</li> <li>3. to review the adequacy of and the necessity for monitoring undertaken by the consent holder.</li> </ol> <p>Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.</p>	
<b>Action Required</b>	I note the next review period commences 7 December 2022.	<b>Not assessed</b>
<b>Authorisation Compliance: Partial Compliance</b>		

## 4 SUMMARY OF COMPLIANCE

Based on the conditions selected for monitoring, compliance has been assessed as:

Authorisation	Authorisation Description	Compliance Status
AUTH135636.01.01	Discharge of treated municipal wastewater to the Wigmore Stream and associated seepage to groundwater from treatment ponds	Partial Compliance

**Overall Site Compliance: Partial Compliance**

## 5 DISCUSSION AND CONCLUSIONS

The audit has found Hahei Wastewater Treatment Plant to be in **Partial Compliance** with the assessed conditions of consent. Identified issues of non-compliance from this audit are:

- Flow rates are not available for reporting (Condition 6)
- Two instances where diluted partially treated wastewater was discharged to old disposal beds (Condition 7)
- Non-compliances with *E.coli* and Ammoniacal Nitrogen discharge limits, though there is a trend of improvement (Condition 8)
- Some missing discharge quality data related to plant maintenance periods (Condition 16)
- An Updated Monitoring Implementation Plan is required (Condition 17)
- Six monthly reporting was not provided (condition 20)
- A minor delay in providing the annual report (condition 21)
- An Updated Contingency Plan is required (Condition 23)
- A Management Plan is required to be submitted (Condition 24)

The Partial Compliance status is an improvement on the 2018/19 audit. This past year has seen the upgrade of power supply servicing the plant and this is expected to assist with production of compliant discharges. In addition, one MFU unit (which was a second-hand reconditioned unit) was replaced with a brand new unit, as it was not performing as expected. Improving effluent quality has been evident through the latter part of the compliance period.

Delays in providing reports are being addressed by TCDC/Veolia across all WWTPs and improvement is expected in the next compliance period. A number of plans are required or need updating in order for the compliance rating to improve.

As discussed in conditions 14 and 15 above, TCDC have faced numerous challenges with the flow recording of the Wigmore Stream. I recommend that no further monitoring is required under condition 14 of this consent and subsequently no additional low flow manual gauging is required under condition 15. Regular gauging of the Wigmore Stream is still required under condition 16 and there is value in the consent holder still undertaking additional manual gauging in low flow events.

The site has been a Priority 2 site. However, given the receiving environment and recent non-compliant statuses, I recommend this is a Priority 1 site for the 2020/21 compliance year.

## 6 SUMMARY OF ACTIONS REQUIRED

The following actions are required to be undertaken:

Condition Number	Action Required
6 – Flow Rate	Confirm when flow rate monitoring will be available – Due <b>31 October 2020</b>
17 – Monitoring	Provide an updated Monitoring Implementation Plan – Due <b>1 December 2020</b>

Implementation Plan	
23 – Contingency Plan	Provide an updated Contingency Plan by <b>1 December 2020</b>
24 - Management Plan	Provide a Management Plan by <b>1 December 2020</b>

## 7 RECOMMENDATIONS FOR WAIKATO REGIONAL COUNCIL

- Improvements have occurred for site compliance in this audited period; however, some outstanding matters require action as detailed above
- The plant discharge quality is improving; however, the discharge parameters are not yet in full compliance. I recommend the abatement notice remain in place until such time that TCDC provides updated data showing compliance with all average and 90<sup>th</sup> percentile limits. This may be achievable in the near future.
- I recommend a letter of direction is issued regarding the outstanding matters detailed above.
- I do not consider escalation is required for this site based on improved compliance state.



Amy King  
**Senior Resource Officer - Resource Use**  
**Resource Use**

**Date: 20 July 2020**

### 7.1 Decision

I have reviewed this audit and I agree with its recommendations.



Hugh Keane  
**Team Leader**  
**Resource Use**

**Date: 22 July 2020**

## APPENDIX 1

### Compliance Status for Individual Conditions

Compliance Status	Description
Not assessed	Monitoring of this condition was not undertaken during this monitoring event
High priority non-compliance	The non-compliance has the potential for, or has resulted in, significant adverse effects on the environment.
Medium priority non-compliance	There is non-compliance with limits or other direct controls on adverse effects; and The non-compliance has the potential for, or has resulted in, a greater than minor increase in the level of effects authorised.
Low priority non-compliance	There is non-compliance with limits or other direct controls on adverse effects; and The non-compliance has the potential for, or has resulted in, a less than minor increase in the level of effects authorised; and/or There has been a significant technical non-compliance such as a failure to collect or supply self monitoring data.
Minor technical non-compliance	There is non-compliance with a condition, or part of a condition, that does not directly control adverse effects; and The non-compliance was not significant in the management of effects. For example a short delay in supplying data or meeting a deadline for a report
Full Compliance	The condition has been complied with

### Compliance status for individual consents and the entire site

Compliance Status	Description
Not assessed	Monitoring has not been undertaken at this site during the current financial year
Significant non-compliance	There has been a high priority non-compliance; and/or There have been several medium priority non-compliances.
Partial compliance	There has been a medium priority non-compliance; and/or There have been several low priority non-compliances.
High level of compliance	There has been a low priority non-compliance; and/or There have been several minor technical non-compliances.
Full compliance	All conditions that include limits or other direct controls on adverse effects have been complied with. A small number of minor technical non-compliances may have occurred.