

# Site Compliance Report

**Site No:** REG605464  
**Site Owner:** Taupo District Council  
**Site Name:** Taupo District Council: Whareroa Wastewater Treatment Plant  
**Date:** 14 October 2019

---

## 1 INTRODUCTION

The following resource consents are held for the site:

Resource Consent	Status	Description	Commenced	Expiry
AUTH121300.01.01	Current	Take up to 682 cubic metres of groundwater per day for community water supply purposes	31/01/2013	31/01/2033
AUTH138347.01.01	Current	To discharge treated municipal wastewater to land and associated contaminants to air, from the Whareroa wastewater treatment plant.	24/01/2019	31/01/2039

This report examines the level of compliance of Taupo District Council with the selected conditions of the resource consents.

## 2 BACKGROUND

The previous audit, completed in September 2018, found the site to be in Partial Compliance with the assessed conditions of consent and a Formal Warning was issued.

In January 2019, the replacement consent evaluation process was completed and a new consent granted.

RA Number	Status	Date	Site Compliance
RA235903	Complete	4/09/2018	Partial compliance
RA226477	Complete	20/09/2017	Partial compliance
RA208030	Complete	12/07/2016	Provisional compliance

## 3 COMPLIANCE ASSESSMENT

Unless otherwise specified in this document this assessment covers the period from 1 July 2018 to 30 June 2019.

The full compliance year is assessed against the conditions of resource consent AUTH138347.01.01, despite it being granted midway through the compliance period; where inconsistencies between the requirements of the two resource consents arise, this is discussed in individual conditions and compliances statuses assigned accordingly.

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

**AUTH138347.01.01 - Discharge to land**

**Activity Authorised: To discharge treated municipal wastewater to land and associated contaminants to air, from the Whareroa wastewater treatment plant.**

Condition No.	Description								
3	The maximum volume of treated wastewater discharged to the ground must not exceed 200 cubic metres per day (200 m <sup>3</sup> /day).								
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)								
<b>Status Reasoning</b>	All reported daily discharges are within the authorised limit.								
<b>Action Required</b>	<b>Full compliance</b>								
4	<p>The consent holder must ensure that the quality of the treated wastewater discharged to the ground will result in compliance with the following limits:</p> <p>a) The annual total nitrogen loading rate (based on average fortnightly TN sampling results x daily irrigation volume x total irrigable land area) must not exceed 250kg TN per year per hectare for the year commencing 1 July and ending 30 June, for one year in every five years (consecutively);</p> <p><b>Note:</b> Part a) of this condition is to allow for the opportunity to expand irrigation areas when discharge flows reach the upper limits of the land area and does not authorise non-compliance with part b) for any other reason.</p> <p>b) At all other times, the annual total nitrogen loading rate (based on average fortnightly TN sampling results x daily irrigation volume x total irrigable land area) must not exceed 200kg TN per year per hectare for the year commencing 1 July and ending 30 June;</p> <p>c) The daily loading rate must not exceed 15 mm depth of wastewater per day based on total irrigated area;</p> <p>d) The annual total nitrogen load discharged must not exceed 446 kilograms TN per year for the year commencing 1 July and ending 30 June.</p> <p><b>Note:</b> The annual load limit specified in part d) of this condition may be increased by offset by the consent holder securing an equivalent nitrogen offset within the Lake Taupo catchment and providing evidence of such to Waikato Regional Council.</p>								
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)								
<b>Status Reasoning</b>	<p>a), b) the irrigated nitrogen loading rate is reported as 44kg/ha/year, over a total irrigable area of 1.6 hectares.</p> <p>c) all daily irrigation loadings are reported as being within the authorised limit.</p> <p>d) the total irrigated nitrogen is reported as 70 kg/year.</p>								
<b>Action Required</b>	<b>Full compliance</b>								
6	<p>No later than 2 years from commencement of this consent, the application of treated wastewater to land at Whareroa Road must not occur when any of the following environmental conditions exist:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Description</th> <th>No irrigation conditions</th> </tr> </thead> <tbody> <tr> <td>Rainfall Intensity</td> <td>&gt;0.5mm/minute for greater than 20 minute duration</td> </tr> <tr> <td>Wind Speed</td> <td>exceeds 12 metres per second (at a height of 1.2 metres above ground).</td> </tr> <tr> <td>Frost/temperature</td> <td>&lt;-5 degrees</td> </tr> </tbody> </table>	Description	No irrigation conditions	Rainfall Intensity	>0.5mm/minute for greater than 20 minute duration	Wind Speed	exceeds 12 metres per second (at a height of 1.2 metres above ground).	Frost/temperature	<-5 degrees
Description	No irrigation conditions								
Rainfall Intensity	>0.5mm/minute for greater than 20 minute duration								
Wind Speed	exceeds 12 metres per second (at a height of 1.2 metres above ground).								
Frost/temperature	<-5 degrees								
<b>Evidence</b>	This condition becomes effective on the 24 January 2021.								
<b>Status Reasoning</b>									
<b>Action Required</b>	<b>Not assessed</b>								

8	<p>The consent holder must develop and retain an Operations and Management Plan for this site. This Plan shall be prepared by a suitably qualified and experienced person and shall detail how the treatment and disposal system is to be operated and maintained to ensure compliance with the conditions of this consent. As a minimum the Plan shall include the following matters:</p> <ul style="list-style-type: none"> <li>a) A comprehensive description of the treatment and disposal facility,</li> <li>b) Chain of command, responsibility and notification protocols including operation and maintenance of the transfer pipeline to the site,</li> <li>c) Operational management of the irrigation system;</li> <li>d) A description of maintenance and improvements undertaken to the treatment plant and disposal system,</li> <li>e) A description and schedule of the routine inspection, monitoring and maintenance procedures to be undertaken to ensure effective plant operation;</li> <li>f) Procedures for recording routine maintenance and all repairs that are undertaken</li> <li>g) Reporting procedures including an annual monitoring report,</li> <li>h) Contingency measures to address unusual events,</li> <li>i) Procedures for improving and/or reviewing the Operations and Management Plan.</li> <li>j) Measures to: <ul style="list-style-type: none"> <li>i. ensure the renovation of contaminants and uptake of nutrients from the wastewater is maximised and the extent of nutrient, and in particular nitrogen, leaching to groundwater is minimised</li> <li>ii. ensure the sustainability of the soil resource and</li> <li>iii. maintain the soil's natural infiltration capacity and structure as much as practicable</li> </ul> </li> </ul> <p>This Plan shall be lodged with Waikato Regional Council for approval in a technical certification capacity within six months of commencement of this consent, and shall be reviewed and updated every five years and as required as a result of any changes in plant operation or management. An electronic copy of the management plan shall be provided to Waikato Regional Council within 10 working days of a request to do so.</p>		
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)		
<b>Status Reasoning</b>	<p>The Operations and Management Plan has not yet been supplied, and was due on the 24 July 2019.</p> <p>The annual report states that the Plan is in development and provision is anticipated by the end of 2019.</p>		
<b>Action Required</b>	<table border="1" style="width: 100%;"> <tr> <td style="width: 60%;"><b>Supply a copy of the updated Operations and Management Plan; due 31 December 2019.</b></td> <td style="width: 40%;"><b>Minor technical non-compliance</b></td> </tr> </table>	<b>Supply a copy of the updated Operations and Management Plan; due 31 December 2019.</b>	<b>Minor technical non-compliance</b>
<b>Supply a copy of the updated Operations and Management Plan; due 31 December 2019.</b>	<b>Minor technical non-compliance</b>		
13	<p>The consent holder must inspect the property at a minimum of monthly intervals and as soon as practicable after heavy rainfall events, to record the presence or not of erosion rills or gullies, tomos, seepages, or any other physical change to the property which may impact on the irrigation area or accelerate nutrient losses, and shall keep records of those inspections.</p>		
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)		
<b>Status Reasoning</b>	The annual report includes records of site inspections by Taupo DC staff.		
<b>Action Required</b>	<b>Full compliance</b>		
20	<p>The quality of the treated wastewater discharged into the ground must be determined by the consent holder. To this end the consent holder must monitor the following parameters: total nitrogen (TN), ammoniacal-nitrogen (NH4-N), nitrate-nitrogen (NO3-N), total phosphorus (TP) suspended solids (SS), 5 day carbonaceous biochemical oxygen demand (cBOD5), Escherichia coliform bacteria (E.coli) and chloride (Cl) to the satisfaction of the Waikato Regional Council. The monitoring programme must measure:</p> <ul style="list-style-type: none"> <li>i) the concentrations of these parameters in the effluent measured at fortnightly</li> </ul>		

	<ul style="list-style-type: none"> <li>intervals,</li> <li>ii) minimum and maximum daily concentrations, and monthly average concentrations based on fortnightly monitoring intervals,</li> <li>iii) minimum and maximum daily mass loads, and monthly average mass loads based on fortnightly monitoring intervals,</li> <li>iv) the mass of total nitrogen discharged from the plant per annum, based on the average fortnightly mass load and discharge flow, or part thereof at the time of reporting.</li> </ul>
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)
<b>Status Reasoning</b>	This condition has been met.
<b>Action Required</b>	<b>Full compliance</b>
23	<p>The consent holder must develop and retain a monitoring programme to evaluate the environmental effects of this effluent discharge. This programme shall be undertaken to the satisfaction of Waikato Regional Council and shall include the following:</p> <ul style="list-style-type: none"> <li>i) Groundwater quality and contaminant migration monitoring, which shall comprise a minimum of one down-gradient monitoring piezometer,</li> <li>ii) Monitoring of groundwater samples taken from the piezometers shall be carried out on a quarterly basis. The groundwater samples shall be analysed for nitrate-nitrogen (NO<sub>3</sub>-N), nitrite-nitrogen (NO<sub>2</sub>-N), Ammoniacal-nitrogen (NH<sub>4</sub>-N), conductivity (COND), <i>Escherichia coliform bacteria (E.coli)</i> and chloride (Cl),</li> <li>iii) Groundwater levels shall be monitored in the monitoring piezometers on a quarterly basis.</li> </ul>
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)
<b>Status Reasoning</b>	This condition has been met.
<b>Action Required</b>	<b>Full compliance</b>
24	To the satisfaction of Waikato Regional Council the consent holder must undertake soil testing annually at the same time each year as recommended by the New Zealand Fertiliser Manufacturers Association. Soil testing will also be undertaken before sowing and cultivation to ensure there is sufficient time to apply and incorporate fertilisers to address any deficiencies (if required). The soil will be analysed for macro and micro nutrients, pH, cation exchange capacity and organic matter. Analyses shall be undertaken on composite samples on each site and sampling depths of 0-75 mm and 75-100 mm.
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)
<b>Status Reasoning</b>	
<b>Action Required</b>	<b>Full compliance</b>
25	The consent holder must forward the results of the monitoring undertaken pursuant to conditions 19 and 20 to the Waikato Regional Council, via electronic means, on a quarterly basis.
<b>Evidence</b>	Quarterly data reports have not been supplied.
<b>Status Reasoning</b>	This is a new requirement, effective only since the replacement consent was granted in January 2019.
<b>Action Required</b>	<b>Provide quarterly data as required, on an on-going basis.</b> <span style="float: right;"><b>Minor technical non-compliance</b></span>
26	The results of the monitoring described by conditions 23 and 24 of this consent shall be provided to the Waikato Regional Council annually by 30 September, in an agreed analysed report and data form unless otherwise agreed to in writing by Waikato Regional Council.
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)
<b>Status Reasoning</b>	This condition has been met.
<b>Action Required</b>	<b>Full compliance</b>

27	The consent holder shall provide to the Waikato Regional Council a written report by 30 September each year, addressing the following:	
	<ul style="list-style-type: none"> <li>i) A summary of all monitoring results required by conditions of this resource consent for the year ending 30 June;</li> <li>ii) Critical analysis of the monitoring data collected and comments on any emerging trends;</li> <li>iii) Comment on compliance with the conditions of this resource consent;</li> <li>iv) Comment on the performance and adequacy of the disposal system, matters of compliance;</li> <li>v) Comment on the effects of the discharge on ground and surface water;</li> <li>vi) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this resource consent and a description of and a summary of the efficacy of any remedial works undertaken; and</li> <li>vii) Any other issue considered relevant to the consent holder.</li> </ul>	
<b>Evidence</b>	Whareroa WWTP 2018/19 annual report, prepared by PDP (doc#15210618)	
<b>Status Reasoning</b>	This condition has been met.	
<b>Action Required</b>		<b>Full compliance</b>
<b>Authorisation Compliance: Full compliance</b>		

#### 4 SUMMARY OF COMPLIANCE

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

Authorisation	Authorisation Description	Compliance Status
AUTH138347.01.01	To discharge treated municipal wastewater to land and associated contaminants to air, from the Whareroa wastewater treatment plant.	Full compliance

**Overall Site Compliance: Full Compliance**

#### 5 DISCUSSION AND CONCLUSIONS

The audit has found the Whareroa wwtp to be in **Full Compliance** with the assessed conditions of consent. Two issues of technical non-compliance have been identified regarding:

- Non-provision of an updated Operations and Management Plan, and
- Non-provision of quarterly data reports.

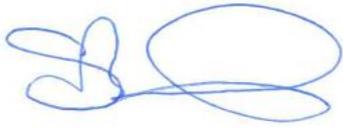
#### 6 SUMMARY OF ACTIONS REQUIRED

The following actions are required to be undertaken:

Condition	Action Required
8	Supply a copy of the updated Operations and Management Plan; due 31 December 2019.
25	Provide quarterly data as required, on an on-going basis.

## 7 RECOMMENDATIONS FOR WAIKATO REGIONAL COUNCIL

Taupo District Council is to be acknowledged for achieving Full Compliance.



Stuart Beard  
**Resource Officer**  
**Resource Use**

**Date: 14 October 2019**

### 7.1 Decision

I have reviewed the audit and agree with its recommendations.



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

**Date: 15 October 2019**

**APPENDIX 1****Compliance Status for Individual Conditions**

<b>Compliance Status</b>	<b>Description</b>
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**

<b>Compliance Status</b>	<b>Description</b>
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.