

# Site Compliance Report

**Site No:** REG606683  
**Site Owner:** Waikato District Council  
**Site Name:** Raglan WWTP: Wainui Rd, Raglan  
**Date:** 9 July 2021

---

## 1 INTRODUCTION

The following resource consents are held for the site:

Resource Consent	Status	Description	Commenced	Expiry
AUTH971389.01.01	Expired	Undertake soil disturbance activities within a high-risk erosion area in association with the construction and modifications of the Raglan wastewater treatment site	14/02/2005	14/02/2020
AUTH971390.01.01	Expired - S.124 Protection APP141240 RC25066	Discharge up to 2600 cubic metres of treated wastewater per day into the Raglan Harbour	14/02/2005	14/02/2020
AUTH971391.01.01	Expired - S.124 Protection	Retain existing treated wastewater pipeline, to enable discharge of treated wastewater to Harbour	14/02/2005	14/02/2020
AUTH971392.01.01	Expired - S.124 Protection	Discharge odour to the air associated with all aspects of the existing & proposed treatment system	14/02/2005	14/02/2020

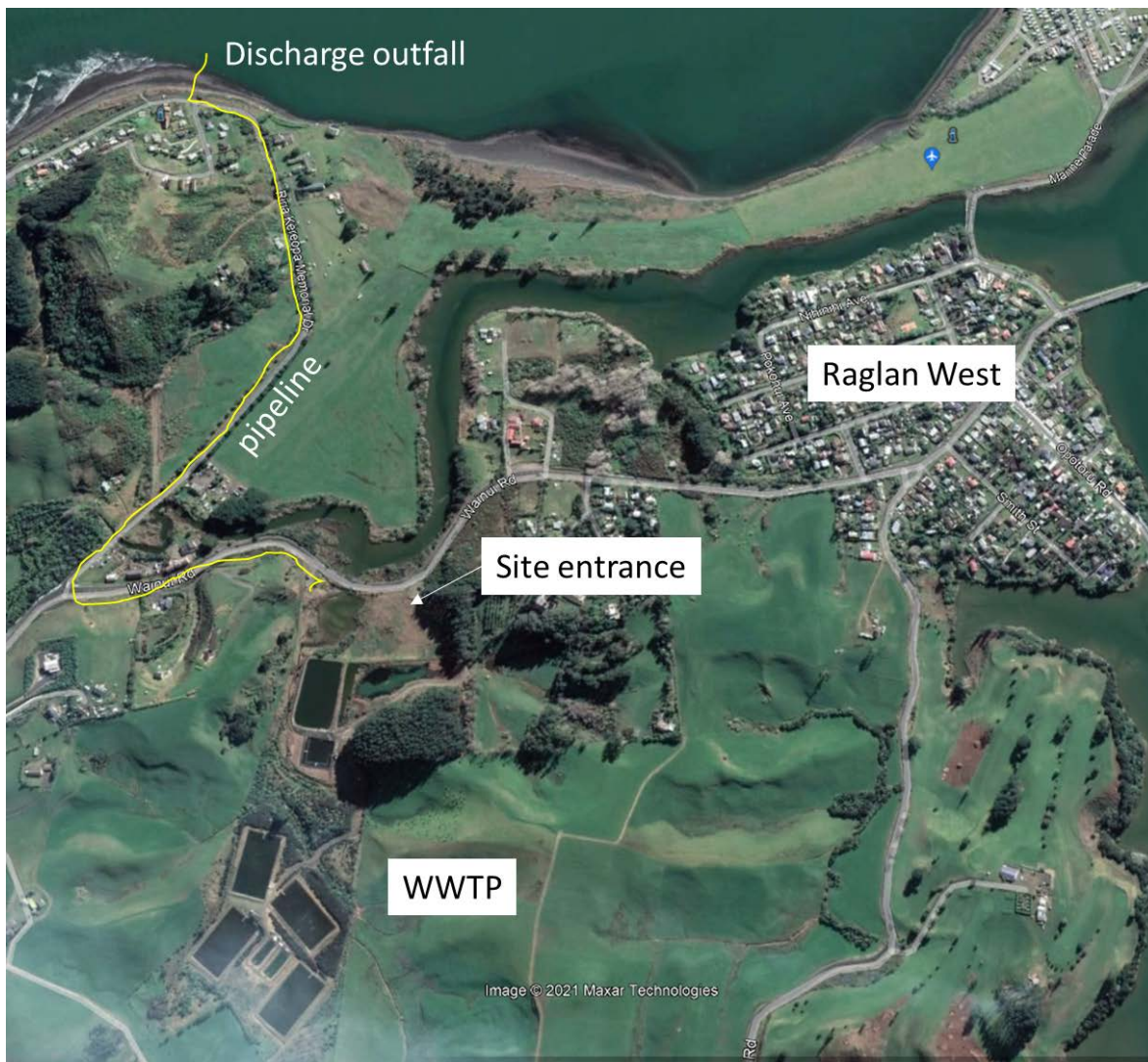
This report examines the level of compliance of Waikato District Council with the selected conditions of the resource consents.

## 2 BACKGROUND

The Raglan wastewater treatment plant (WWTP) is operated by Watercare Services Limited (WSL) on behalf of Waikato District Council (WDC) for the Raglan/Whaingaroa community.

*The Waikato District Council (WDC) holds the above resource consent associated with the treatment and discharge of wastewater from the Raglan wastewater treatment plant (WWTP) to the Raglan Harbour. The consent was issued on February 2005, where a renewal 2020 application was received and accepted by the Regional Council. This application preserves legal operation, where a S92 request is outstanding. This has allowed critical time to secure a treatment and discharge option that meets the expectation of mana whenua and the community, in an affordable manner. Confidence sits with the consenting technical project team that a sub-surface drip irrigation (SDI) on either public or private land will be arrived at soon. Key WRC Managers have been kept abreast of optioneering through 20-21, where their involvement has been appreciated by the project team.*

The consents have expired and are being operated under S124 protection whilst the new applications are being processed. The applicant has been undertaking extensive consultation and investigation of discharge methods and locations that may be suitable for land disposal. The application is currently on hold under S92(1) to allow time for the applicant to provide further information pertaining to their final options for progressing the upgrade at the site.



## 2.1 PREVIOUS COMPLIANCE HISTORY

Date Period	Site Compliance
1 July 2020 to 30 June 2021	Low risk non-compliance
1 July 2019 to 30 June 2020	Significant non-compliance
1 July 2018 to 30 June 2019	High level of compliance
1 July 2017 to 30 June 2018	High level of compliance
1 July 2016 to 30 June 2017	Partial compliance

Please note: For the 2021-22 compliance year WRC has commenced using the new MfE compliance monitoring scoring regime that has been implemented nationwide for all regional councils. This new scoring system is designed to bring all the regions into line and make the measuring of national compliance much easier to compare.

## 3 COMPLIANCE ASSESSMENT

Unless otherwise specified in this document this assessment covers the period from **1 July 2020 to 30 June 2021**.

This compliance assessment has been undertaken based on the submitted annual report by the consent holder, monitoring data supplied throughout the compliance period and any site inspections undertaken. Some administration, duplicate or irrelevant conditions have been omitted for brevity.

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

#### AUTH971390.01.01 - Water - sewage

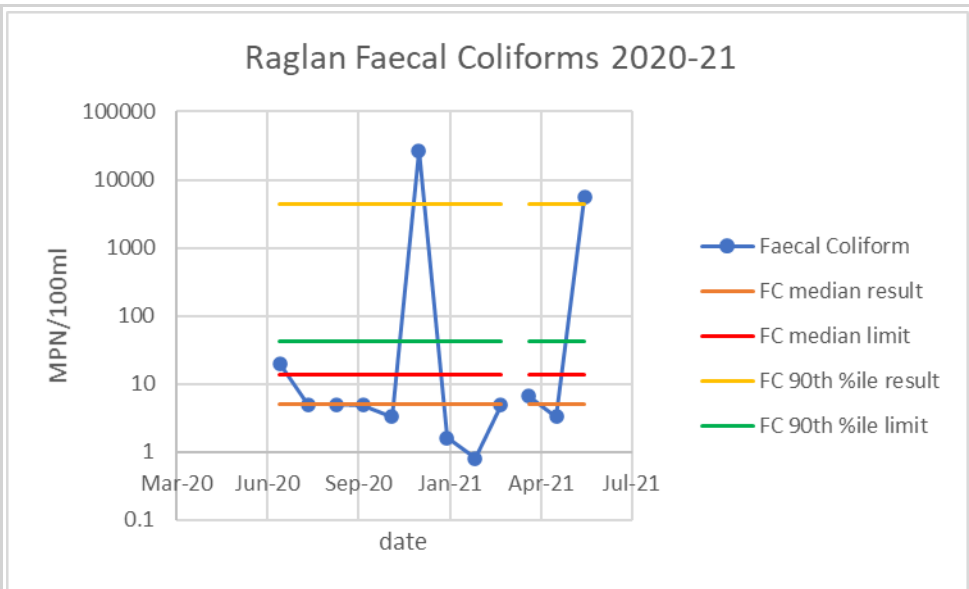
<b>Activity Authorised: Discharge up to 2600 cubic metres of treated wastewater per day into the Raglan Harbour</b>	
<b>Condition No.</b>	<b>Description</b>
1	The Raglan wastewater treatment and disposal system shall be constructed, operated and maintained in general accordance with the documents titled "Resource Consent Application and Assessment of Environmental Effects, Volume 1 –Report", "Resource Consent Application and Assessment of Environmental Effects, Volume 2 – Report", and "Raglan Wastewater Treatment and Disposal System, Request for Further Information" dated 15 September 1998, unless superseded by the following document "Raglan Wastewater Treatment Upgrade Assessment of Environmental Effects" dated October 2002, or inconsistent with the resource consent conditions below, which shall prevail. This condition shall preclude the Council from modifying the design or layout of elements of the Raglan Wastewater Treatment and Disposal System to incorporate other treatment technologies which may prove beneficial for the treatment process or environmental outcomes, provided that it meets the conditions of this consent.
<b>Evidence</b>	Despite the operators following procedures the treatment plant remains non-compliant for suspended solids and has had some incidents of non-compliance for other determinants. Sampler error has also been involved in collecting samples that have shown to be non-compliant due to incorrect sample collection.
<b>Status Reasoning</b>	Continued non-compliance with limits of the consent
<b>Action Required</b>	<b>Investigate and upgrade plant and procedures to reduce the number of non-compliances</b> <b>Moderate Non-Compliance</b>
2	Suitable fencing shall be installed and maintained to ensure that livestock are at all times unable to access the wastewater treatment site.
<b>Evidence</b>	The site is suitably fenced to exclude livestock from accessing the wastewater treatment site.
<b>Status Reasoning</b>	
<b>Action Required</b>	<b>Full Compliance</b>
4	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 avoid the potential for adverse effects on the Raglan Harbour. This plan shall be lodged with the Waikato Regional Council for its approval within 12 months of date of commencement of the consent as defined in section 116 of the Resource Management Act 1991. The plan shall as a minimum include the following: (i) a description of the entire treatment system facility including: - the filter treatment system, facultative, maturation and holding ponds, and ultra-violet (UV) disinfection unit; - discharge pumps, - discharge pump activation/deactivation and monitoring systems, including a back up system to ensure failsafe operation of the discharge pumps on the outgoing tide, and - discharge and outfall pipeline. (ii) a description of routine maintenance procedures to be undertaken; (iii) an outline of the methods to be utilised to monitor the treatment plant in an operational sense including: - monitoring of influent waste water - monitoring of treatment performance (iv) specific management procedures for operation of the wastewater treatment system, discharge and outfall pipeline; (v) procedures for recording routine maintenance and all repairs that are undertaken; (vi) contingency measures in place to deal with unusual events; (vii) other actions necessary to comply with the requirements of this resource consent; (viii) procedures for improving and/or reviewing the management plan. The consent holder shall provide an opportunity to the Tainui Hapu to have the draft management plan presented and explained to it and shall take into consideration any comments made by the Tainui Hapu prior to

	<p>lodgement of the management plan with the Waikato Regional Council for approval. The consent holder shall on submitting the management plan for approval, provide the Waikato Regional Council with a commentary on the above discussions with Tainui Hapu for the Council's consideration. The management plan shall be reviewed and updated by the consent holder as a minimum at 1-year intervals. The consent holder shall provide opportunities to the Tainui Hapu to comment on any proposed changes to the plan. Any proposed changes to the plan shall be submitted in writing for approval by the Waikato Regional Council. The consent holder shall undertake the treatment and disposal of wastewater in accordance with the approved management plan.</p>
<b>Evidence</b>	<p>The Raglan Wastewater Treatment Plant Management and Contingency Plan version 3 August 2014 was submitted to WRC. • Watercare has planned for the review and update of O&amp;M Plans across the wastewater treatment plants during 2020/21. However, due to covid lockdowns and workflow nature this was not able to be completed during the 2020/21 period. We anticipate completing the O&amp;M Plan updates/reviews during the 2021/22 period.</p>
<b>Status Reasoning</b>	<p>The management plan shall be reviewed and updated by the consent holder as a minimum at 1-year intervals</p>
<b>Action Required</b>	<p><b>Reviews and updates have not been undertaken as required. Please provide an updated Operations and Management plan as soon as possible</b> <b>Low Risk Non-Compliance</b></p>
6	<p>The consent holder shall provide the Waikato Regional Council with a contingency plan that assesses the environmental hazards associated with potential discharge of wastewater from the wastewater treatment site and marine outfall. This plan shall be lodged with the Waikato Regional Council for its approval within 3 months of date of commencement of the consent as defined in section 116 of the Resource Management Act 1991. The hazard analysis shall include contingency plans to avoid discharges to the unnamed waterways on the treatment site and unauthorised discharges to the Raglan Harbour. The hazard analysis shall include consideration of the following events: (i) overtopping of one or more ponds; (ii) structural failure of one or more ponds; (iii) Datran system failure; The analysis shall include measures undertaken to effectively avoid the risk of a spill and measures available to reduce the impact of a spill, should one occur. The consent holder shall provide an opportunity to the Tainui Hapu to have the draft contingency plan presented and explained to it and shall take into consideration any comments made by the Tainui Hapu prior to lodgement of the contingency plan with the Waikato Regional Council for approval. The consent holder shall on submitting the contingency plan for approval, provide the Waikato Regional Council with a commentary on the above discussions with Tainui Hapu for the Council's consideration. The contingency plan shall be reviewed and updated by the consent holder as a minimum at 1-year intervals. The consent holder shall provide opportunities to the Tainui Hapu to comment on any proposed changes to the plan. Any proposed changes to the plan shall be submitted in writing for approval by the Waikato Regional Council. The consent holder shall undertake the treatment and disposal of wastewater in accordance with the approved contingency plan.</p>
<b>Evidence</b>	<p>Contingency plans have been provided in the last version of the O&amp;M plan</p>
<b>Status Reasoning</b>	
<b>Action Required</b>	<p><b>Contingency plans will need to be reviewed, updated and amended in line with the current practices and risks involved in the site operation.</b> <b>Full Compliance</b></p>
7	<p>The consent holder shall keep a complaints register for all complaints regarding all aspects of operations (with the exception of odour which is the subject of a separate resource consent) at the wastewater treatment facility received by the consent holder. The register shall record: (i) the date, time and duration of the event/incident that has resulted in a complaint; (ii) The nature of the event/incident complained of; (iii) the location of the complainant when the event/incident was detected; (iv) the possible cause of the event/incident; and (v) any corrective action undertaken by the consent holder in response to the complaint. The register shall be available to the Waikato Regional Council at all reasonable times upon request. Complaints received by the consent holder which indicate non-compliance with the conditions of this resource consent shall be forwarded to the Waikato Regional Council within 5 days of the complaint being received.</p>
<b>Evidence</b>	<p>a Copy of the WDC CRM complaints register has been submitted with the annual report</p>

<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
8	Until the fifth anniversary of the date of commencement of this consent as defined in section 116 of the Resource Management Act 1991, the maximum volume of treated wastewater discharged shall not exceed 2,600 cubic metres in any 24 hour period.	
<b>Evidence</b>	The maximum discharge was 2074m <sup>3</sup> in August 2020.	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
9	A water flow meter shall be installed to record the quantity of treated wastewater discharged on a cumulative basis per tidal period. The meter shall be calibrated to ensure measurement of treated wastewater flow is maintained to an accuracy of +/- 2%. Access to the meter shall be provided to Waikato Regional Council staff at all reasonable times. The flow meter display panel shall be visible to the public.	
<b>Evidence</b>	A meter is installed to record quantities of effluent discharged. A flow display panel visible to the public is installed on the roadside wall of the UV building.  Flow meter calibration were completed during 2019/20 period and the certificates were submitted to WRC as Appendix Four to the 2019-20 Annual report.  Watercare is currently organising the flow meter verification for the WWTPs during October 2021. We will submit the certificates to WRC upon completion of the work.	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
10	The consent holder shall maintain a record of the daily volume of treated wastewater discharged from the treatment system which shall be made available to the Waikato Regional Council at all reasonable times and these records shall be forwarded to the Waikato Regional Council on a three monthly basis.	
<b>Evidence</b>	WaterOutlook reporting at Council has allowed this process to be automated.	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
11	The discharge of treated wastewater shall occur for a maximum of 5.5 hours per outgoing tide. The discharge may commence no earlier to 0.5 hours before high tide and shall cease no later than 1 hour before low tide. Provided that for not more than 20 days per year immediately after extreme weather, pumping hours may exceed that maximum discharge duration of 5.5 hours per tide.	
<b>Evidence</b>	The treatment team have automated the system so that the pumps logic is set using an algorithm dictated by the NIWA tide charts. The accuracy of the automated pump operations are checked periodically.  The pump hours are verified at times by WRC staff when passing the site.	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
12	The consent holder shall maintain a record of the date and time each discharge cycle commences and finishes which shall be made available to the Waikato Regional Council upon request and these records shall be forwarded to the Waikato Regional Council on a three-monthly basis.	
<b>Evidence</b>	This data is recorded in the SCADA system. SCADA trends can be provided to support accurate run times.	

	The consent holder provides detailed run reports to WRC on request.																																																												
<b>Status Reasoning</b>																																																													
<b>Action Required</b>	<b>Full Compliance</b>																																																												
13	There shall be no discharge of oil or grease or persistent surface foam because of the exercise of this consent.																																																												
<b>Evidence</b>	None reported for this period.																																																												
<b>Status Reasoning</b>																																																													
<b>Action Required</b>	<b>Full Compliance</b>																																																												
14	The consent holder shall ensure that, no later than 2 years after the date of commencement of this consent, the suspended solids level does not exceed a median level of 20 grams per cubic metres for 12 consecutive monthly samples (one sample per month) an a maximum of 30 grams per cubic metre for 9 of 10 consecutive monthly samples (one sample per month). The point of compliance with the specified limit shall be at or about the point that the treated effluent enters the discharge pipeline. Notwithstanding the time given for compliance, the consent holder shall make all reasonable and practical efforts to ensure that final effluent quality is maximised within the capabilities of the current treatment system. All sample analyses shall be undertaken in accordance with the methods detailed in the "Standard Methods For The Examination Of Water And Wastewater, 1999" 20th edition by A.P.H.A. and A.W.W.A. and W.P.C.F.																																																												
<b>Evidence</b>	<p>Please see the data summary submitted. The Raglan WWTP continues to be non-compliant for suspended solids. Currently Watercare is investigating options to upgrade the Wastewater Treatment with a view to lodging a new resource consent application. A concept design for tertiary membrane has commenced in August 2021</p> <div data-bbox="427 996 1340 1758" data-label="Figure"> <p>The graph displays TSS levels over time. The y-axis is logarithmic, ranging from 1 to 1000 g/m3. The x-axis shows dates from April 2020 to July 2021. The TSS median result (orange line) is consistently around 30 g/m3. The TSS 90th %ile result (yellow line) is around 200 g/m3. The TSS median limit (red line) is around 20 g/m3. The TSS 90th %ile limit (green line) is around 30 g/m3. The actual TSS levels (blue line with dots) fluctuate, with a significant peak in November 2020 reaching approximately 300 g/m3.</p> <table border="1"> <caption>Raglan Total Suspended Solids 2020-21 Data</caption> <thead> <tr> <th>Date</th> <th>Total Suspended Solids (g/m3)</th> <th>TSS median result (g/m3)</th> <th>TSS median limit (g/m3)</th> <th>TSS 90th %ile result (g/m3)</th> <th>TSS 90th %ile limit (g/m3)</th> </tr> </thead> <tbody> <tr> <td>Apr-20</td> <td>15</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> <tr> <td>Jun-20</td> <td>25</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> <tr> <td>Aug-20</td> <td>40</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> <tr> <td>Sep-20</td> <td>55</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> <tr> <td>Nov-20</td> <td>300</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> <tr> <td>Jan-21</td> <td>250</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> <tr> <td>Feb-21</td> <td>25</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> <tr> <td>Apr-21</td> <td>35</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> <tr> <td>Jun-21</td> <td>12</td> <td>30</td> <td>20</td> <td>200</td> <td>30</td> </tr> </tbody> </table> </div>	Date	Total Suspended Solids (g/m3)	TSS median result (g/m3)	TSS median limit (g/m3)	TSS 90th %ile result (g/m3)	TSS 90th %ile limit (g/m3)	Apr-20	15	30	20	200	30	Jun-20	25	30	20	200	30	Aug-20	40	30	20	200	30	Sep-20	55	30	20	200	30	Nov-20	300	30	20	200	30	Jan-21	250	30	20	200	30	Feb-21	25	30	20	200	30	Apr-21	35	30	20	200	30	Jun-21	12	30	20	200	30
Date	Total Suspended Solids (g/m3)	TSS median result (g/m3)	TSS median limit (g/m3)	TSS 90th %ile result (g/m3)	TSS 90th %ile limit (g/m3)																																																								
Apr-20	15	30	20	200	30																																																								
Jun-20	25	30	20	200	30																																																								
Aug-20	40	30	20	200	30																																																								
Sep-20	55	30	20	200	30																																																								
Nov-20	300	30	20	200	30																																																								
Jan-21	250	30	20	200	30																																																								
Feb-21	25	30	20	200	30																																																								
Apr-21	35	30	20	200	30																																																								
Jun-21	12	30	20	200	30																																																								
<b>Status Reasoning</b>	Although the site has discharged continued and exceeding results for suspended solids, the solids are algal cells that grow within the treated wastewater as it sits in the final daily holding pond awaiting discharge. The discharge from this site is limited to a twice daily tidal window to ensure the discharge flow is carried out to sea and dispersed in a dynamic and high dilution saltwater environment.																																																												

<p><b>Action Required</b></p>	<p>The treatment plant must undertake an upgrade to the treatment process to facilitate suspended solids removal to a compliant level. <b>Low risk non-compliance</b></p>																																																
<p>15</p>	<p>The consent holder shall ensure that, no later than 2 years after the date of commencement of this consent, the 5-day biochemical oxygen demand (BOD5) concentration of the discharge does not exceed a median level of 10 grams per cubic metre of 12 consecutive monthly samples (one sample per month) and a maximum of 20 grams per cubic metre for 9 of 10 consecutive monthly samples (one sample per months). The point of compliance with the specified limit shall be at or about the point that the treated effluent enters the discharge pipeline. Notwithstanding the time given for compliance, the consent holder shall make all reasonable and practical efforts to ensure that final effluent quality is maximised within the capabilities of the current treatment system. All sample analyses shall be undertaken in accordance with the methods detailed in the "Standard Methods For The Examination Of Water And Wastewater, 1999" 20th edition by A.P.H.A. and A.W.W.A. and W.P.C.F.</p>																																																
<p><b>Evidence</b></p>	<p>the cBOD5 samples have been compliant for median and 90%ile</p> <table border="1"> <caption>Raglan cBOD5 2020-21 Data</caption> <thead> <tr> <th>Date</th> <th>cBOD5 (g/m3)</th> <th>Median Result (g/m3)</th> <th>Median Limit (g/m3)</th> <th>90% Result Limit (g/m3)</th> <th>90th %ile Limit (g/m3)</th> </tr> </thead> <tbody> <tr> <td>Jul-20</td> <td>11</td> <td>10</td> <td>10</td> <td>11</td> <td>20</td> </tr> <tr> <td>Aug-20</td> <td>12</td> <td>10</td> <td>10</td> <td>11</td> <td>20</td> </tr> <tr> <td>Oct-20</td> <td>6</td> <td>10</td> <td>10</td> <td>11</td> <td>20</td> </tr> <tr> <td>Nov-20</td> <td>8</td> <td>10</td> <td>10</td> <td>11</td> <td>20</td> </tr> <tr> <td>Jan-21</td> <td>5</td> <td>10</td> <td>10</td> <td>11</td> <td>20</td> </tr> <tr> <td>Mar-21</td> <td>4</td> <td>10</td> <td>10</td> <td>11</td> <td>20</td> </tr> <tr> <td>Apr-21</td> <td>7</td> <td>10</td> <td>10</td> <td>11</td> <td>20</td> </tr> </tbody> </table>	Date	cBOD5 (g/m3)	Median Result (g/m3)	Median Limit (g/m3)	90% Result Limit (g/m3)	90th %ile Limit (g/m3)	Jul-20	11	10	10	11	20	Aug-20	12	10	10	11	20	Oct-20	6	10	10	11	20	Nov-20	8	10	10	11	20	Jan-21	5	10	10	11	20	Mar-21	4	10	10	11	20	Apr-21	7	10	10	11	20
Date	cBOD5 (g/m3)	Median Result (g/m3)	Median Limit (g/m3)	90% Result Limit (g/m3)	90th %ile Limit (g/m3)																																												
Jul-20	11	10	10	11	20																																												
Aug-20	12	10	10	11	20																																												
Oct-20	6	10	10	11	20																																												
Nov-20	8	10	10	11	20																																												
Jan-21	5	10	10	11	20																																												
Mar-21	4	10	10	11	20																																												
Apr-21	7	10	10	11	20																																												
<p><b>Status Reasoning</b></p>																																																	
<p><b>Action Required</b></p>	<p><b>Full Compliance</b></p>																																																
<p>16</p>	<p>The consent holder shall ensure that, no later than 2 years after the date of commencement of this consent, the concentration of faecal coliforms in the discharge does not exceed a median level of 14 (number per 100 millilitres) for 12 consecutive monthly samples ( one sample per month) and a maximum of 43 (number per 100 millilitres) for 9 of 10 consecutive samples (one sample per month). Upon completion of the treatment system the point of compliance with the specified limit shall be at or about the point that the treated effluent enters the discharge pipeline. Notwithstanding the time given for compliance, the consent holder shall make all reasonable and practical efforts to ensure that final effluent quality is maximised within the capabilities of the current treatment system. All sample analyses shall be undertaken in accordance with the methods detailed in the "Standard Methods For The Examination Of Water And Wastewater, 1999" 20th edition by A.P.H.A. and A.W.W.A. and W.P.C.F.</p>																																																
<p><b>Evidence</b></p>	<p>Site has failed 90% ile limit with a result of 4404 MPN/100ml with the limit being 43 MPN/100ml.</p> <p>The site has achieved compliance with the median limit.</p> <p><i>Partial compliance- Please see the data summary above (Appendix One); FC measured median 5 cfu/100mL and 90th percentile 4404 cfu/100mL. Comments and investigations on 90th percentile exceedances were forwarded to Regional Council along with the Monthly reports- incidents related to sampling error.</i></p>																																																



**Status Reasoning**

The consent holder states that:

*WSL Ops team has investigated the event and no issues were identified with the treatment process. The Ops team noted that the samples were collected too early (as soon as the pumps started) which may have resulted in these exceedances. WSL informed the lab of the event, sampling procedure to be reviewed.*

Incorrect sampling procedure could be responsible for the two blips in FC sample levels during the year. If the consent holder has now improved their sampling procedure then these isolated blips should now cease.

In May the consent holder reported:

*Raglan wastewater discharge has exceeded the consented limits for TSS on 11/05/21. WSL Ops team have investigated the event and no issues were identified with the treatment process. The Ops team have cleaned the final pond liner and final effluent pump chamber on 03/06/21 as part of the routine maintenance to ensure no accumulated build up enters the UV system and subsequent sample collection point.*

**Action Required**

**Low risk Non-Compliance**

17

**The consent holder shall monitor the concentration of enterococci in the discharge at weekly intervals from 15 December to 30 January. The consent holder shall ensure that, no later than 2 years after the date of commencement of this consent, the concentration of enterococci in the discharge is less than 35 enterococci per 100 millilitres of 5 of 6 consecutive weekly samples (one sample per week). The point of compliance with the specified limit shall be at or about the point that the treated effluent enters the discharge pipeline. All sample analyses shall be undertaken in accordance with the methods detailed in the "Standard Methods for The Examination of Water and Wastewater, 1999" 20th edition by A.P.H.A. and A.W.W.A. and W.P.C.F.**

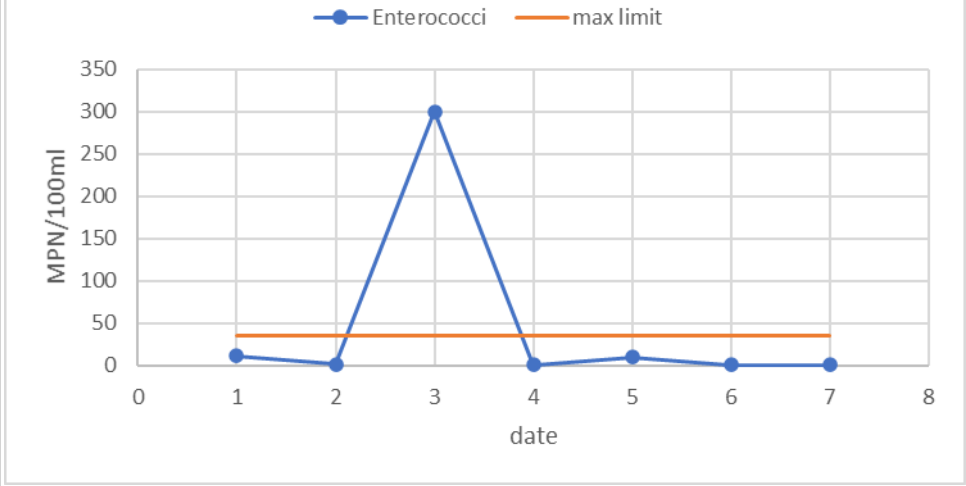
**Evidence**

One sample of the seven taken failed the maximum limit with a result of 300 MPN/100ml in December 2020.

Six of the seven were compliant.



### Raglan WWTP Enterococci 2020-21



<b>Status Reasoning</b>	Only 1 sample was non-compliant out of seven consecutive samples taken	
<b>Action Required</b>		<b>Full Compliance</b>
18	<p>The consent holder shall provide to the Waikato Regional Council a written monitoring report by 30 September each year for the previous year ending 30 June of each year that this consent is current. As a minimum this report shall include the following: (i) a comparison of data with previously collected data identifying any emerging trends in effluent quality in terms of suspended solids, five-day biochemical oxygen demand, faecal coliforms and enterococci (reference conditions 14,15, 16 and 17); (ii) comment on compliance with conditions 8,9,10,11,12,13,14,15,16 and 17 of this resource consent; (iii) any reasons for non-compliance or difficulties in achieving compliance with conditions 8,9,10,11,12,13,14,15,16, and 17 of this resource consent; (iv) any works that have been undertaken to improve the environmental performance of the wastewater treatment system or that are proposed to be undertaken in the up-coming year to improve the environmental performance of the wastewater treatment system; and (v) recommendations on alterations to the monitoring required by conditions 14,15,16 and 17 of this resource consent.</p>	
<b>Evidence</b>	Report was submitted on time.	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
19	<p>The consent holder shall notify the Waikato Regional Council as soon as practicable and as a minimum requirement within 24 hours, of the consent holder becoming aware of the limits specified in conditions 8,11,14, 15, 16, and 17 of this resource consent being exceeded and/or of any accidental discharge, plant breakdown, or other circumstances which are likely to result in the limits of this resource consent being exceeded. The consent holder shall, within 7 days of the incident occurring, provide a written report to the Waikato Regional Council, identifying the exceedance, probable causes, steps undertaken to remedy the effects of the incident and measures that will undertaken to ensure future compliance.</p>	
<b>Evidence</b>	<p>All major incidents are notified to WRC as required</p> <p>WSL-WRC liaison meetings were also held during the 2020-21 period to address any non compliances and update on actions to improve compliance</p>	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
20	<p>The consent holder shall maintain a register of all incidents that result in an exceedance of the limits specified in conditions 9,12,15,16,17 and 18 of this resource consent. This register shall be made available for inspection by Waikato Regional Council staff at all reasonable times. This register shall be forwarded to the Waikato Regional Council by 30 June each year.</p>	

<b>Evidence</b>	The fifth anniversary was February 2010 and the report by AWT consultants was provided to Waikato Regional Council and other interested parties at this time	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
	<b>Authorisation Compliance:</b>	<b>Low Risk Non-Compliance</b>

### AUTH971391.01.01 - Water - sewage

**Activity Authorised: Retain existing treated wastewater pipeline, to enable discharge of treated wastewater to Harbour**

<b>Condition No.</b>	<b>Description</b>	
1	The existing pipeline and outfall shall be operated and maintained in general accordance with the document titled "Resource Consent Application and Assessment of Environmental Effects, Volume 1 – Report", "Resource Consent Application and Assessment of Environmental Effects, Volume 2 – Report", and "Raglan Wastewater Treatment and Disposal System, Request for Further Information " dated 15 September 1998, unless superseded by the following document "Raglan Wastewater Treatment Upgrade Assessment of Environmental Effects" dated October 2002, or inconsistent with the resource consent conditions below, which shall prevail. The condition shall not preclude the Council from modifying the design or layout of elements of the Raglan Wastewater Treatment and Disposal System to incorporate other treatment technologies which may prove beneficial for the treatment process or environmental outcomes, provided that it meets the conditions of this consent.	
<b>Evidence</b>		
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
2	The consent holder shall maintain the pipeline and outfall in a structurally safe condition at all times.	
<b>Evidence</b>	<p>This structure is a relatively new piece of infrastructure and as expected there have been nil reports of any issues which would compromise the structural integrity of this pipeline.</p> <p>Dive surveys are undertaken as required. Last done was in March 2021 and the reports were submitted to WRC in April. The next surveys are scheduled for September/October 2021.</p>	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
3	The consent holder shall maintain the outfall pipeline so as to minimise potential for the loss of components due to water action. Should the outfall pipeline become damaged, and material lost constitute a hazard to navigation, the Maritime Safety Authority or such other appropriate body shall be immediately informed. Damage to the pipeline shall be reported to Waikato Regional Council immediately and repairs shall be undertaken as soon as practicable. Note: A Separate resource consent may be required as a result of the need to undertake works on the foreshore and/or harbour bed. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.	
<b>Evidence</b>	No reports or complaint pertaining to the outfall or pipeline have been received by WRC	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
	<b>Authorisation Compliance:</b>	<b>Full Compliance</b>


### AUTH971392.01.01 - Air - odour

**Activity Authorised: Discharge odour to the air associated with all aspects of the existing & proposed treatment system**

Condition No.	Description	
1	The wastewater treatment system shall be operated and maintained in general accordance with the documents titled "Resource Consent Application and Assessment of Environmental Effects, Volume 1 – Report" Resource Consent Application and Assessment of Environmental Effects, Volume 2 – Report", and "Raglan Wastewater Treatment and Disposal System, Request for Further Information " dated 15 September 1998, unless superseded by the following document "Raglan Wastewater Treatment Upgrade Assessment of Environment Effects" dated October 2002, or consistent with the resource consent conditions below, which shall prevail. This condition shall not preclude the Council from modifying the design or layout of elements of the Raglan Wastewater Treatment and Disposal System to incorporate other treatment technologies which may prove beneficial for the treatment process or environmental outcomes, provided that it meets the conditions of this consent.	
<b>Evidence</b>		
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
2	There shall be no odour as a result of the activities authorised by this resource consent that causes an objectionable or offensive effect beyond the boundary of the site, being that land defined by: • Gazette Notice, 1974, page 2548 (Land taken for Sanitary Works situated in Block I, Karioi Survey District, described as part lot 1, DP 13913, and Part Rakaunui 1C2A2 Block); • Gazette Notice, 1999 page 3849 (Land acquired for Wastewater Treatment described as Part Lot 1, DP 13913 (part C.T/47C/740).	
<b>Evidence</b>	No complaints of odour have been reported to WRC in relation to this activity during the current compliance period. I checked the CRM listings and none relating to the WWTP were logged. (doc ref 21877165)	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
3	The consent holder shall maintain and keep a complaints register for all odour complaints in respect of the wastewater treatment facility received by the consent holder. The register shall record: (i) the date, time and duration of the event/incident that has resulted in a complaint; (ii) the location of the complainant when the event/incident was detected; (iii) the possible cause of the event/incident (iv) the weather conditions and wind direction at the site when the odour event allegedly occurred; (v) any corrective action undertaken by the consent holder in response to the complaint. The register shall be made immediately available to the Waikato Regional Council upon request. Any event/incident with the potential to cause emissions resulting in adverse effects on the environment shall be reported to the Waikato Regional Council as soon as practicable and in any event within 24 hours of the incident occurring.	
<b>Evidence</b>	Council's CRM database records all complaints from the public. Please see appendix two for records.	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
4	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 avoid the potential for the discharge of odours that cause an offensive and objectionable effect beyond the boundary of the Raglan Wastewater Treatment site. This plan shall be lodged with the Waikato Regional Council within 12 months of the date of commencement of the consent as defined in section 116 of the Resource Management Act 1991. (i) a description of the entire treatment system facility, including	

	<p>- the filter treatment system, facultative, maturation and holding ponds, and ultra-violet (UV) disinfection unit, - discharge pumps - discharge pump activation/deactivation and monitoring systems, including a backup system to ensure failsafe operation of the discharge pumps on the outgoing tide; and - discharge and outfall pipeline. (ii) a description of routine maintenance procedures to be undertaken; (iii) an outline of the methods to be utilised to monitor the treatment plant in an operational sense including; - monitoring of influent waste water; - monitoring of treatment performance (iv) specific management procedures for operation of the wastewater treatment system, discharge and outfall pipeline; (v) procedures for recording routine maintenance and all repairs that are undertaken; (vi) contingency measures in place to deal with unusual events; (vii) other actions necessary to comply with the requirements of this resource consent; (viii) procedures for improving and/or reviewing the management plan. The consent holder shall provide an opportunity to the Tainui Hapu to have the draft management plan presented and explained to it and shall consider any comments made by the Tainui Hapu prior to lodgement of the management plan with the Waikato Regional Council for approval. The consent holder shall on submitting the management plan for approval, provide the Waikato Regional Council with a commentary on the above discussions with Tainui Hapu for the Council's consideration. The management plan shall be reviewed and updated by the consent holder as a minimum at 1-year intervals. The consent holder shall provide opportunities to the Tainui Hapu to comment on any proposed changes to the plan. Any proposed changes to the plan shall be submitted in writing for approval by the Waikato Regional Council. The consent holder shall undertake the treatment and disposal of wastewater in accordance with the approved management plan.</p>	
<b>Evidence</b>	<p>An updated Raglan WWTP Management Plan was submitted to WRC in September 2014. Watercare has planned for the review and update of the Management Plan during 2020/21. However, due to covid lockdowns and workflow nature this was not able to be completed during the 2020/21 period. We anticipate completing the Plan updates/reviews during the 2021/22 period. The Air discharge management plan will be included in the new SMP.</p>	
<b>Status Reasoning</b>		
<b>Action Required</b>		<b>Full Compliance</b>
	<b>Authorisation Compliance:</b>	<b>Full Compliance</b>

#### 4 SUMMARY OF COMPLIANCE

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

Authorisation	Authorisation Description	Compliance Status
AUTH971390.01.01	Discharge up to 2600 cubic metres of treated wastewater per day into the Raglan Harbour	Low risk Non-Compliance
AUTH971391.01.01	Retain existing treated wastewater pipeline, to enable discharge of treated wastewater to Harbour	Full Compliance
AUTH971392.01.01	Discharge odour to the air associated with all aspects of the existing & proposed treatment system	Full Compliance

**Overall Site Compliance: Low risk Non-Compliance**

## 5 DISCUSSION AND CONCLUSIONS

It is disappointing to see that this site continues to be non-compliant with the total suspended solids limit despite the construction of a daily discharge pond which was supposed to remedy the issue of algal growth in the final holding pond. However, the elevated SS levels do not appear to be having any adverse effect on the ability of the UV system to disinfect the discharge. The suspended solids consist primarily of algal cells that grow whilst the treated wastewater is held in the final holding pond prior to discharge.

The treated wastewater has nutrients that provide a food source for algae which grows readily in sunny warm conditions. The discharge is restricted to two tidal windows on the outgoing tide to ensure the discharge is taken out to sea and given maximum dilution and dispersion. The risk of environmental risk from the discharge is therefore minimised.

Discharge Monthly Tests Parameters	Unit	Consent Limits		Trigger Limit		Measured		Compliance		
		Median	90%ile	Median	90%ile	Median	90%ile	Median	90%ile	
CBOD5	g/m <sup>3</sup>	10.0	20.0			6.6	10.9	2 / 12	0 / 12	Compliant
Total Suspended Solids	g/m <sup>3</sup>	20.0	30.0			31.4	246.6	9 / 12	6 / 12	X
Feecal Coliform	CFU/100ml	14.0	43.0			5.0	4,404.0	4 / 13	2 / 13	X
Enterococci	CFU/100ml		35.0			1.6			1 / 7	Compliant

It is likely that any upgrade to the site that results from the new consent process will incorporate technology to reduce the suspended solids load.

There have however been two failed samples this period for faecal coliforms however after investigation it appears that these two samples may have been the result of improper sampling procedures by operators at the site. The consent holder is upskilling their sample staff in the correct way to undertake samples at this particular site. Any faecal coliforms that are discharged into the estuary on an outgoing tide are most likely killed off by saltwater immersion or ultraviolet disinfection from natural sunlight.

WRC staff are attending liaison meetings with stakeholders, WSL and WDC staff aimed at determining the best options available for disposal of the treated wastewater from Raglan WWTP. A final chosen option for the upgrade and disposal methods are expected to be finalised within a couple of months.

Overall I consider that the non-compliances in the discharge from the Raglan WWTP carry a low risk of adverse environmental effects due to the nature of the non-compliances and the receiving environment's ability to assimilate and disperse the fully treated wastewater.

The consent holder is continuing to work towards full compliance and is currently undertaking extensive consultation with the local stakeholder groups to be able to submit a detailed consent application update to Waikato Regional Council in the near future.

## 6 SUMMARY OF ACTIONS REQUIRED

The following actions are required to be undertaken:

Resource consent	Condition	Action Required
AUTH971390.01.01	1	Investigate and upgrade plant and procedures to reduce the number of non-compliances
AUTH971390.01.01	4	Reviews and updates have not been undertaken as required. Please provide an updated Operations and Management plan as soon as possible
AUTH971390.01.01	6	Contingency plans will need to be reviewed, updated and amended in line with the current practices and risks involved in the site operation.

AUTH971390.01.01	14	The treatment plant must undertake an upgrade to the treatment process to facilitate suspended solids removal to a compliant level.
------------------	----	---

## 7 RECOMMENDATIONS FOR WAIKATO REGIONAL COUNCIL

As a result of this audit I recommend the following for Raglan WWTP:

- The site remains as a Focus Area 1 site for the 2021-22 compliance period,
- The site is awarded a formal warning for continued non-compliance
- The consent holder continues with the consent process as quickly as possible.
- Once a new consent is granted the consent holder will be required to provide a timeframe for when the final upgrade solution will be implemented.



Edward Prince  
**Senior Resource Officer - Infrastructure  
Resource Use**

**Date: 23 November 2021**

### 7.1 Decision

I have reviewed this audit report and agree with the recommendations.



Hugh Keane  
**Team Leader - Infrastructure  
Resource Use**

**Date: 23 November 2021**

**APPENDIX 1**  
**Compliance Rating System**

Compliance Status	Compliance Grade
	<b>Not Assessed</b>
	<b>Full Compliance</b> Full compliance with all relevant consent conditions, plan rules, regulations and national environmental standards.
	<b>Low Risk Non-Compliance</b> Non-compliance with some of the relevant consent conditions, plan rules, regulations and national environmental standards. Non-compliance carries a low risk of adverse environmental effects or is technical in nature (e.g. failure to submit a monitoring report).
	<b>Moderate Non-Compliance</b> Non-compliance with most of the relevant consent conditions, plan rules, regulations and national environmental standards, where there are some environmental consequences and/or there is a moderate risk of adverse environmental effects.
	<b>Significant Non-Compliance</b> Non-compliance with many of the relevant consent conditions, plan rules, regulations and national environmental standards, where there are significant environmental consequences and/or a high risk of adverse environmental effects.