

**971390 Raglan Wastewater discharge to Harbour 1 July 2010 – 30 June 2011**

**This coastal permit authorises the Consent Holder to:** Discharge up to 2600 cubic metres of treated wastewater per day into the Raglan Harbour at or about map reference NZMS 260 R14:727-763 on Part of Raglan Harbour Bed, Blk I, Karioi SD for a term to expire on 14 February 2020, subject to the following conditions

	Conditions	Comply Yes/No	Comments
1	<p>The Raglan wastewater treatment and disposal system shall be constructed, operated and maintained in general accordance with the documents titled <b>“Resource Consent Application and Assessment of Environmental Effects, Volume 1 – Report”</b>, <b>“Resource Consent Application and Assessment of Environmental Effects, Volume 2 – Report”</b> and <b>“Raglan Wastewater Treatment and Disposal System, Request for Further Information”</b> dated 15 September 1998, unless superseded by the following document <b>“Raglan Wastewater Treatment Upgrade Assessment of Environmental Effects”</b> dated October 2002, or inconsistent with the resource consent conditions below, which shall prevail.</p> <p>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.</p>	Yes	
2	<p>Suitable fencing shall be installed and maintained to ensure that livestock are at all times unable to access the wastewater treatment site.</p>	Yes	<p>The site is suitably fenced to exclude livestock from accessing the wastewater treatment site.</p>
3	<p>The consent holder shall construct the Raglan wastewater treatment system in accordance with accepted civil engineering practices. To this end the consent holder shall, unless otherwise required by Waikato Regional Council in writing following consultation with the consent holder, retain a suitably qualified registered engineer to:</p>	Yes	<p>A suitably qualified engineer supervised the construction of the wastewater treatment system.</p>

	Conditions	Comply Yes/No	Comments
	<p>(i) supervise the construction of the Raglan wastewater treatment system;</p> <p>(ii) ensure that the filter treatment system, facultative, maturation and holding ponds, and UV disinfection unit are constructed to a standard appropriate for their anticipated use, and to an adequate standard to withstand peak loading conditions, and to withstand earthquake events, in accordance with accepted engineering design requirements; and</p> <p>(iii) within 2 months following construction of the Raglan wastewater treatment system, to provide a written report to the Waikato Regional Council detailing the construction procedures used and the “as-built” details of works associated with the exercise of this consent. The report shall demonstrate that the works have been carried out in accordance with accepted civil engineering practice and are such as to meet the conditions of this consent.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>	
4	<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 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.</p> <p>The plan shall as a minimum include the following:</p> <p>(i) a description of the entire treatment system facility including:</p> <ul style="list-style-type: none"> <li>- the filter treatment system, facultative, maturation and holding ponds, and ultra-violet (UV) disinfection unit;</li> <li>- discharge pumps,</li> <li>- discharge pump activation/deactivation and monitoring systems, including a back up system to ensure failsafe operation of the</li> </ul>	Yes	<p>A Management and Contingency plan was submitted in June 2010 and accepted by Environment Waikato on 23 July 2010.</p> <p>Waikato District Council staff for Water and Facilities, Environment Waikato and local Iwi representatives including Tainui Hapu met in June 2010 to discuss the previous five years treatment performance, options and preferences for future treatment and the draft management and contingency plan.</p> <p>Suggestions received for improvements to the Management and Contingency Plan were implemented in the final document.</p>

	Conditions	Comply Yes/No	Comments
	<p>discharge pumps on the outgoing tide, and discharge and outfall pipeline.</p> <ul style="list-style-type: none"> <li>(ii) a description of routine maintenance procedures to be undertaken;</li> <li>(iii) an outline of the methods to be utilised to monitor the treatment plant in an operational sense including: <ul style="list-style-type: none"> <li>- monitoring of influent waste water</li> <li>- monitoring of treatment performance</li> </ul> </li> <li>(iv) specific management procedures for operation of the wastewater treatment system, discharge and outfall pipeline;</li> <li>(v) procedures for recording routine maintenance and all repairs that are undertaken;</li> <li>(vi) contingency measures in place to deal with unusual events;</li> <li>(vii) other actions necessary to comply with the requirements of this resource consent;</li> <li>(viii) procedures for improving and/or reviewing the management plan.</li> </ul> <p>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 lodgement of the management plan with the Waikato Regional Council for approval.</p> <p>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.</p> <p>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</p>		<p>The Management Plan was reviewed by WDC and there was no need to make any changes. Tainui hapu were contacted on 9 June 2011 requesting their views on the plan. They have not requested any changes.</p>

	<b>Conditions</b>	<b>Comply Yes/No</b>	<b>Comments</b>
	<p>shall be submitted in writing for approval by the Waikato Regional Council.</p> <p>The consent holder shall undertake the treatment and disposal of wastewater in accordance with the approved management plan.</p>		
5	<p>The Waikato Regional Council may within six months of the commissioning of the treatment system (including filter treatment system, facultative maturation and holding ponds, and UV disinfection unit) in September 2006, September 2008, September 2010, September 2012 and September 2014, after consultation with the consent holder, 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:</p> <ul style="list-style-type: none"> <li>(i) to review the requirement for less or further monitoring of enterococci (condition 17) and to review the specified maximum limit in conditions 14, 15, 16, and 17 of this resource consent; or</li> <li>(ii) to review the effectiveness of the conditions of this resource consent in avoiding or mitigating any advert effects on the environment 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>(iii) to review the adequacy of and the necessity for monitoring undertaken by the consent holder.</li> </ul> <p>Note: 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>	Yes	

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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.</p> <p>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:</p> <ul style="list-style-type: none"> <li>(i) overtopping of one or more ponds;</li> <li>(ii) structural failure of one or more ponds;</li> <li>(iii) Datran system failure;</li> </ul> <p>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.</p> <p>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.</p> <p>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.</p> <p>The contingency plan shall be reviewed and updated by the consent holder as a minimum at 1-year intervals. The consent holder shall</p>	Yes	<p>A Management and Contingency plan was submitted in June 2010 and accepted by Environment Waikato on 23 July 2010.</p> <p>No evidence of structural failure of pond bunds has been observed.</p> <p>As mentioned in the summary the Raglan ponds telemetry has been upgraded and more work is planned. The district wide upgrade has not started, however considerable advancement has been made and the planned start is now 2011-12.</p> <p>Waikato District Council staff for Water and Facilities, Environment Waikato and local Iwi representatives including Tainui Hapu met in June 2010 to discuss the previous five years treatment performance, options and preferences for future treatment and the draft management and contingency plan.</p> <p>Suggestions received for improvements to the Management and Contingency Plan were implemented in the final document.</p>

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	<p>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.</p> <p>The consent holder shall undertake the treatment and disposal of wastewater in accordance with the approved contingency plan.</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.</p> <p>The register shall record:</p> <ul style="list-style-type: none"> <li>(i) the date, time and duration of the event/incident that has resulted in a complaint;</li> <li>(ii) the nature of the event/incident complained of;</li> <li>(iii) the location of the complainant when the event/incident was detected;</li> <li>(iv) the possible cause of the event/incident; and</li> <li>(iv) any corrective action undertaken by the consent holder in response to the complaint.</li> </ul> <p>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>	No	<p>WDC Stakeholder Relationship Customer Delivery Team keep a register of all reported incidents in the Councils CRM database. There have been several complaints reported to Council on the operation of the wastewater treatment system during the reporting period. These complaints have all been with respect to odour and came from one person. The offending anaerobic ponds have been bypassed and the odour complaints have ceased.</p>
8	<p>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.</p> <p>Within two months of the fifth and of each subsequent anniversary of the date of commencement of this consent, the Waikato Regional Council may serve notice on the consent holder under section 128 (1) of the Resource Management Act 1991, of its intention to review this</p>	No	<p>Non Compliant with this condition in Oct 2010. The maximum daily discharge volume was exceeded on three days in October.</p> <p>Maximum recorded daily total flow was 2706 m3/day in Oct 2010.</p> <p>Due to high winter infiltration flows associated with the winter storm events during the reporting period, the discharge pumps were run outside the tidal period on 6 out of the maximum 20 days per year.</p>

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	<p>condition for the purposes of establishing an appropriate maximum discharge volume.</p> <p style="text-align: center;">B</p>		<p>The maximum average monthly flow was 2706 cubic metres per day over the total reporting period.</p> <p>The 90<sup>th</sup> Percentile Maximum was 2654 m<sup>3</sup>/day</p> <p>The 90<sup>th</sup> Percentile Average Daily flow was 1423 m<sup>3</sup>/day</p> <p>The Median maximum daily flow was 2154 m<sup>3</sup>/day</p> <p>The Median Average daily flow was 1061 cubic metres per day over the reporting period.</p>
9	<p>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.</p>	Yes	<p>A meter is installed to record quantities of effluent discharged. The meter was calibrated on installation.</p> <p>A flow display panel visible to the public has been installed on the roadside wall of the UV building.</p> <p>A project to replace the outfall pipe to the ocean including replacement of the flow meter, was completed in October 2010.</p>
10	<p>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.</p>	No	
11	<p>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.</p> <p>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.</p>	Yes  Yes	<p>Where pumping outside tidal times has been necessary due to high winter infiltration flows, the discharge pumps were run outside the tidal period on only 6 out of the maximum 20 days/year.</p>
12	<p>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</p>	Partial	<p>Demonstrating this time control integrity is problematic due to data analysis and time stepping accuracy issues through the SCADA system.</p>

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	shall be forwarded to the Waikato Regional Council on a three monthly basis.		<p>We can demonstrate on our trending screen, pump start and stop times, but our database recording of accurately time stamped information is suspect.</p> <p>Additionally we have not been able to create a program to interrogate the time stamped start and stop times versus the planned tidal start and stop times. This will be part of telemetry improvements in 2011-12.</p>
13	There shall be no discharge of oil or grease or persistent surface foam as a result of the exercise of this consent.	Yes	<p>Compliance achieved with this condition.</p> <p>Anaerobic, primary and secondary pond outlets are “up” flow weirs that control the passage of surface scum through the system.</p>
14	<p>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) and a maximum of 30 grams per cubic metre for 9 of 10 consecutive monthly samples (one sample per month).</p> <p>The point of compliance with the specified limit shall be at or about the point that the treated effluent enters the discharge pipeline</p> <p>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.</p> <p>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>	No	<p>Non-compliant Suspended Solids.</p> <p>Median value for the 2010/11 year was 42g/m<sup>3</sup>, down from 75 g/m<sup>3</sup> in 2009/10.</p> <p>The 90<sup>th</sup> Percentile target was exceeded at 63 g/m<sup>3</sup>, down from 117 g/m<sup>3</sup> in 2009/10.</p> <p>Maximum recorded value was 97 g/m<sup>3</sup> down from 130 g/m<sup>3</sup> in 2009/10.</p> <p>Average 41.9 g/m<sup>3</sup>, down from 65 g/m<sup>3</sup> in 2009/10.</p> <p>A trial project to reduce suspended solids using ultrasound was run from September 2010 to June 2011. When comparing 2009/2010 and 2010/2011 results for median and 90 percentile, suspended solids have been reduced by about 45%, however results for 2010/2011 are still above consent limits.</p>

	Conditions	Comply Yes/No	Comments
15	<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 (BOD<sub>5</sub>) 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),</p> <p>and a maximum of 20 grams per cubic metre for 9 of 10 consecutive monthly samples (one sample per months).</p> <p>The point of compliance with the specified limit shall be at or about the point that the treated effluent enters the discharge pipeline.</p> <p>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.</p> <p>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>	Yes	<p>Compliant Biochemical Oxygen Demand. Improved results in 2010/11.</p> <p>The Median cBOD5 value for the 2010/11 year was 7.4 g/m<sup>3</sup> down from 11 g/m<sup>3</sup> in the 2009/10 period.</p> <p>The 90<sup>th</sup> Percentile value was 11.8 g/m<sup>3</sup> down from 20 g/m<sup>3</sup> the previous year.</p> <p>Maximum value was 14 g/m<sup>3</sup> down from 26 g/m<sup>3</sup> in 2009/10.</p>
16	<p>The consent holder shall ensure that, no later than 2 years after the date of commencement of this consent,</p> <p>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)</p> <p>and a maximum of 43 (number per 100 millilitres) for 9 of 10 consecutive samples (one sample per month).</p> <p>Upon completion of the treatment system the point of compliance with the specified limit shall be at or about the point that the treated</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>Compliant Faecal Coliforms. Significant improvement on previous period due to UV system.</p> <p>The Median value for the 2010/11 year was 2 MPN per 100mL, the same as for 2009/10 year. The 90<sup>th</sup> Percentile value was 10 MPN per 100mL, down from 38 MPN per 100mL in 2009/10.</p> <p>The Maximum recorded value in May 2011 was 40 MPN per 100mL . This result is four times the next highest result and appears to be suspect. In 2009/10 year the maximum value was 4800 MPN per 100ml.</p>

	Conditions	Comply Yes/No	Comments
	<p>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.</p> <p>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>		
17	<p>The consent holder shall monitor the concentration of enterococci in the discharge at weekly intervals from 15 December to 30 January.</p> <p>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).</p> <p>The point of compliance with the specified limit shall be at or about the point that the treated effluent enters the discharge pipeline.</p> <p>All sample analyses shall be undertaken in accordance with the methods detailed in the "Standard Methods for The Examination of Water and Wastewater, 1999" 20<sup>th</sup> edition by A.P.H.A. and A.W.W.A. and W.P.C.F.</p>	No	<p>Non compliant Enterococci. This consent limit was not achieved. One suspect value of 460.</p> <p>The Median value for the 2010/11 year was 2 MPN per 100mL, for the period 15 December 2010 – 28 January 2011. The 90<sup>th</sup> Percentile value for the summer bathing period was 221 MPN per 100mL. Maximum recorded enterococci count was actually 460 MPN per 100mL for 11 Jan 2011 during the 6 consecutive samplings weeks.</p>
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:</p> <p>(i) a comparison of data with previously collected data identifying any emerging trends in effluent quality in terms of suspend solids, five-day biochemical oxygen demand, faecal coliforms and enterococci (reference conditions 14,15, 16 and 17);</p>	Yes	

	Conditions	Comply Yes/No	Comments
	<ul style="list-style-type: none"> <li>(ii) comment on compliance with conditions 8,9,10,11,12,13,14,15,16 and 17 of this resource consent;</li> <li>(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;</li> <li>(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 upcoming year to improve the environmental performance of the wastewater treatment system; and</li> <li>(v) recommendations on alterations to the monitoring required by conditions 14,15,16 and 17 of this resource consent.</li> </ul>		
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>	Yes	Environment Waikato was notified of pumping outside normal tidal discharge times.
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>	Partial	Regular communication occurred with the Environment Waikato representatives on exceedance issues and progress toward solutions. The annual report data due by 30 September details particular exceedance in water quality and flow volumes.
21	<p>The consent holder shall provide to the Waikato Regional Council, by</p>	Partial	The fifth anniversary was February 2010.

	Conditions	Comply Yes/No	Comments
	<p>the 5<sup>th</sup> anniversary of the granting of this consent, an Effects Assessment Report, that provides as a minimum:</p> <ul style="list-style-type: none"> <li>(i) A review of all monitoring results collected since this consent was granted;</li> <li>(ii) A discussion of the acceptability of the discharge to local Tainui Hapu;</li> <li>(iii) An assessment of the need to improve wastewater discharge quality and/or provide alternative disposal methods, based on the information provided in (i) and (ii) of this condition;</li> <li>(iv) A review of current developments in wastewater treatment and disposal technology that could be appropriate for Raglan wastewater treatment and disposal;</li> <li>(v) Recommendations for future action in the light of (i) to (iv) above.</li> </ul> <p>The Effects Assessment Report shall be prepared by a suitably qualified/experienced person(s) and shall be to a standard acceptable to the Waikato Regional Council.</p>		<p>Waikato District Council staff for Water and Facilities, Environment Waikato and local Iwi representatives including Tainui Hapu met in June 2010 to discuss the AWT Consultants report on the previous five years treatment performance, plus discuss options and preferences for future treatment and the WDC draft management and contingency plan.</p> <p>Suggestions received for improvements to the Management and Contingency Plan were implemented in the final document which was provided to EW and accepted in June 2010.</p>
22	<p>The consent holder shall pay to the Waikato Regional Council any administrative charge fixed in accordance with section 36 of the Resource Management Act 1991, or any change prescribed in accordance with regulations made under section 360 of the Resource Management Act.</p>	Yes	