

### 971390 Raglan Wastewater discharge to Harbour 2008-089

**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”, “Resource Consent Application and Assessment of Environmental Effects, Volume 2 – Report”, and “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 dated 15 September 1998, unless superseded by the following document 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	<p>The amended Aquamats treatment system design was largely complete during the reporting period.</p> <p>The anaerobic establishment was only a partial success and contamination problems were discovered on the Aquamats which are being investigated.</p> <p>The UV system was installed mid-May 2008. A number of operational problems occurred with this during the reporting period.</p>
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</p>	Yes	<p>A suitably qualified engineer supervised the construction of the wastewater treatment system.</p> <p>Work was still in progress during the reporting period.</p>

	Conditions	Comply Yes/No	Comments
	<p>consent holder, retain a suitably qualified registered engineer to:</p> <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>	No	<p>At the date of reporting the final operations manual and site as built construction drawings have not been fully received by WDC and therefore we have not been able to satisfy the requirements of condition 3 (part iii) of the consent by providing a written report to Environment Waikato demonstrating “that works have been carried out in accordance with accepted civil engineering practice and are such as to meet the conditions of the consent”. It is expected that this requirement will be completed at the conclusion of the replacement outfall project, before the end of the 2009-2010 reporting period.</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</li> </ul>	No	<p>There have been significant delays in the commissioning success of elements of the wastewater system.</p> <p>The final operations manual from the designer G2e has not been received by WDC. Modifications to the control methodology of the final pumping station have contributed to this delay</p> <p>A draft management manual was prepared on behalf of Waikato District Council by Harrison &amp; Grierson staff. This was not considered fully acceptable by operations staff and is still to be completed internally.</p>

	Conditions	Comply Yes/No	Comments
	<p>systems, including a back up system to ensure failsafe operation of the discharge pumps on the outgoing tide, and</p> <ul style="list-style-type: none"> <li>- discharge and outfall pipeline.</li> </ul> <p>(ii) a description of routine maintenance procedures to be undertaken;</p> <p>(iii) an outline of the methods to be utilised to monitor the treatment plant in an operational sense including:</p> <ul style="list-style-type: none"> <li>- monitoring of influent waste water</li> <li>- monitoring of treatment performance</li> </ul> <p>(iv) specific management procedures for operation of the wastewater treatment system, discharge and outfall pipeline;</p> <p>(v) procedures for recording routine maintenance and all repairs that are undertaken;</p> <p>(vi) contingency measures in place to deal with unusual events;</p> <p>(vii) other actions necessary to comply with the requirements of this resource consent;</p> <p>(viii) procedures for improving and/or reviewing the management plan.</p> <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</p>		

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	<p>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.</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> <p>(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</p> <p>(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</p> <p>(iii) to review the adequacy of and the necessity for monitoring undertaken by the consent holder.</p> <p>Note: Costs associated with any review of the conditions of this</p>	Yes	

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	resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.		
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</p>	Yes	<p>A contingency plan was submitted to Environment Waikato in June 2005.</p> <p>The draft management plan currently in development has incorporated contingency plans.</p> <p>During the reporting period overtopping of the roadside holding pond due to heavy rainfall was considered possible and therefore the extra-tidal pumping was considered necessary.</p> <p>Subsequently operations staff have become more practiced at anticipating heavy flows and inserting outlet weir stop boards in the primary and secondary ponds to limit holding pond levels during storm events.</p> <p>No evidence of structural failure of pond bunds has been observed.</p> <p>Datran system telemetry reliability has continued to be bothersome. The WDC has a project in 2009-2010 to review the telemetry requirement district wide. The 2010-2011 period has a project planned for upgrade of the telemetry system district-wide in line with the previous study's recommendations.</p>

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	<p>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 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>	Yes	<p>WDC Customer First 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 from one neighbour, largely with respect to odour and screen planting of trees. Environment Waikato has been made aware of these.</p> <p>The odour problems have largely been caused by the failure of the anaerobic ponds to establish a seal or crust to prevent the release of odours.</p> <p>A reasonable period through summer to allow them to establish, produced no results. A 3 month trial of a biological additive was attempted to find a solution. The results were not satisfactory and the trial was stopped in the early part of the 2009-2010 period.</p> <p>The anaerobic ponds have been bypassed and are now effectively removed from the treatment process.</p>

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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 condition for the purposes of establishing an appropriate maximum discharge volume.</p>	No	<p>Non Compliant with this condition in July, August &amp; September. Improved reporting estimation of daily volumes over previous period.</p> <p>Due to high winter infiltration flows associated with the severe winter storm events during the reporting period, the discharge pumps were run outside the tidal period on 17 out of the maximum 20 days per year.</p> <p>During this period the North Island experienced significant and unusually heavy wet weather storm events that contributed to infiltration beyond the normal flow range of the treatment plant.</p> <p>Maximum recorded daily total flow was 4147 m<sup>3</sup>/day in July and Aug 2008 where the larger pump was operated for 24 hours continuously on 4 days in July and 5 consecutive days in August.</p> <p>The management of storm flows has been improved through practice in the reporting period. We have become more adept at managing the insertion of the primary and secondary pond outflow weir stop boards so that volume can be held back.</p> <p>The maximum average monthly flow was 2152 cubic metres per day over the total reporting period.</p> <p>The 90<sup>th</sup> Percentile Maximum was 4026 m<sup>3</sup>/day  The 90<sup>th</sup> Percentile Average Daily flow was 995 m<sup>3</sup>/day  The Median maximum daily flow was 1858 m<sup>3</sup>/day</p> <p>The Median Average daily flow was 1204 cubic metres per day over the reporting period</p> <p>The average monthly outflows for the reporting period are considerably higher than the previous period. This is to be expected</p>

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			as the 07-08 period was very dry. However we believe that some of the reported flows in the 2007-08 were low due to recording inaccuracies. The method used in the attached data tables to calculate flow based on pump run hours has clarified the operational activity. See comments to condition 10 below.
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.	Partial  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>The meter is old and has recently been erratic however replacement is a major exercise that was not programmed for completion in the reporting period.</p> <p>Siphoning known to be possible from the discharge outfall line. This has been observed during servicing of the UV unit where even with pumps off, it was impossible to drain the UV reactor. It is possible that siphoning and/or air in the pipe could be affecting the accuracy and reliability of the flow meter output.</p>
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.	No	<p>Non-compliant.</p> <p>The consent discharge volumes were exceeded in July, August and September</p> <p>The current report provides more confidence that discharge volumes have not been exceeded randomly.</p> <p>Due to the above problem with the flow meter and problems with data storage through the telemetry system the recorded values of daily flow remain highly suspect.</p> <p>However in this reporting period we have tabulated the pump run hours and made a calculation of the daily pump out volume. This is possible because the discharge pumps are effectively acting against a constant head except for slight variations in the tide height.</p>

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			<p>We have used the following flow rates to calculate daily volumes.  Pump 1 : 48 L/s  Pump 2 : 22.7 L/s</p> <p>These seem to be a fair approximations of rate based on our observations of the existing flow meter discharge rates and the manufacturers pump curves.</p>
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>	<p>Partial</p> <p>Yes</p>	<p>Current pumping cycle set for maximum five hours per outgoing tide.</p> <p>Confirming this time control integrity is problematic due to data analysis and time stepping accuracy issues.</p> <p>For this report we have looked at the trended run hours per 24 hour period rounded to the nearest half hour. Several days seem to indicate the possibility of minor infringement of the tidal time rule by running 11.5 hours in any one day and not a maximum of 11 hours. Otherwise the tidal pump out schedule has been met. A program error found in the pumping cycle at times caused the system to not pump out if the start time was close to midnight. No extra pump outs due to PLC system failure occurred.</p> <p>Where deliberate pumping outside tidal times has been necessary due to high winter infiltration flows, the discharge pumps were run outside the tidal period on only 17 out of the maximum 20 days per 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 shall be forwarded to the Waikato Regional Council on a three monthly basis.</p>	<p>Partial</p>	<p>Demonstrating this time control integrity is problematic due to data analysis and time stepping accuracy issues.</p> <p>We can demonstrate on our trending screen, pump start and stop times, but our database recording of accurately time stamped</p>

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			<p>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.</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 upflow weirs that reduce 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>This condition came into effect on 14 February 2007.</p> <p>Non-compliant Suspended Solids. Performance similar to previous period.</p> <p>Median value for the 2008-09 year was 58.5 g/m<sup>3</sup>, down from 62 g/m<sup>3</sup> in 2007-08</p> <p>Maximum recorded value was 160 g/m<sup>3</sup> in March 2009.</p> <p>The 90<sup>th</sup> Percentile target was exceeded at 100 g/m<sup>3</sup>, up from 81 g/m<sup>3</sup> in 07-08</p> <p>Minimum 9.5 g/m<sup>3</sup>,</p> <p>Mean 62.4 g/m<sup>3</sup>, up from 54 g/m<sup>3</sup> in 07-08</p> <p>Suspended solids levels have continued to exceed the limits.</p> <p>Sampling is being undertaken in line with the consent requirements. Some additional sampling in the system has been completed and this is reported in the attached data tables</p>
15	The consent holder shall ensure that, no later than 2 years after the date of commencement of this consent, the 5-day biochemical oxygen	No	Non-compliant Biochemical Oxygen Demand. Results similar to the previous period.

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	<p>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>		<p>The Median value for the 2008-09 year was 11 g/m<sup>3</sup> down from 13 g/m<sup>3</sup> in the previous period</p> <p>Maximum recorded value was 29g/m<sup>3</sup> up from 20 g/m<sup>3</sup> up from the previous year.</p> <p>The 90<sup>th</sup> Percentile value was 20 g/m<sup>3</sup> largely unchanged from the previous year.</p> <p>Minimum 3.8 g/m<sup>3</sup>, Mean 29 g/m<sup>3</sup>,</p> <p>The reduction of BOD and nutrient levels expected through the process is not evident in the data. It could be expected that the BOD reduction would be continuing at each treatment step however the results recorded for the secondary ponds show reduction is often not occurring.</p>
16	<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)</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 effluent enters the discharge pipeline.</p>	<p>Yes</p> <p>No</p>	<p>Partially Compliant Faecal Coliforms. Significant improvement on previous period due to UV system.</p> <p>The Median value for the 2008-09 year was 2 MPN per 100mL. The Median reported for 2007-08 was 1425 MPN per 100mL</p> <p>Maximum recorded value was 1100 MPN per 100mL. However there were several suspect high values like this that did not fit the trend of other results in the same months. If these are removed the maximum FC value would be 74 MPN per 100mL</p>

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	<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>		<p>The 90<sup>th</sup> Percentile value was 10 MPN per 100mL</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>	Yes	<p>Compliant Enterococci. Significant improvement on the previous year due to UV system.</p> <p>The Median value for the 2008-09 year was 20 MPN per 100mL, for the period 17 December 2008 – 30 January 2009 The Median value for the 2008-09 year was 8 MPN per 100mL The Median value for the 2008-09 year, less several suspect high values that do not fit the trend of other results from the same month was 2 MPN per 100mL</p> <p>The 90<sup>th</sup> Percentile value for the summer bathing period was 91 MPN per 100mL The 90<sup>th</sup> Percentile value for the entire reporting period was 250 MPN per 100mL</p> <p>Mean 41 MPN per 100mL for the summer bathing period, Mean 556 MPN per 100mL for the entire reporting period,</p> <p>Maximum recorded value was 13000 MPN per 100mL.</p> <p>There were several high results that did not fit the trend. During service of the UV, bird skeletons, accumulated marine snail shells and small stones have been found. These may be connected with the high</p>

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			results.
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> <ul style="list-style-type: none"> <li>(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);</li> <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>	Yes	<p>The annual report was submitted 30 September 2009.</p> <p>The results for this year are markedly improved on the previous period in most areas except suspended solids. However the current system is still not operating to its full potential in a number of areas.</p> <p>I. There is a problem with the Aquamats in the primary and secondary ponds. They have not developed a full biological growth and it appears the media has been contaminated with material that inhibits biological growth. The representative from Aquamats USA visited the site in July 2008 and has confirmed the presence of heavy metal depositing on the Aquamats.</p> <p>The source of this contamination could be fly dumping of toxic material such as marine paint fouling inhibitors in the sewer system or by septic tanker truck disposal. An enquiry with the local WDC manager seems to discount this theory as unlikely.</p> <p>An alternate possibility is that during the construction of the new sludge storage pond the excess liquids pumped from this storage pond had been contaminated by sludge from the base of the decommissioned old ponds. It is thought that the clay particles and associated heavy metals have created a layer of material that is inhibiting normal growth on the Aquamats especially in the primary ponds.</p> <p>The problem has not self-corrected through the reporting period so the WDC now intends to create a project plan to renovate the Aquamats.</p> <p>At present it is expected a trial will first ascertain if a clean/new</p>

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			<p>Aquamats develops normal biological cover. If this proceeds acceptably the next part will be to remove the contaminated Aquamats from a pond and clean them by water blasting into the decommissioned anaerobic ponds. The Aquamats will then be neutralised with sodium bicarbonate solution and returned to the pond. It may be that we will have to do one set of primary and secondary ponds this year and the other the following year.</p> <p>2. The discharge compliance with the Suspended Solids requirement has not been achievable. It has been suspected that the final holding pond is not improving elevated Suspended Solids levels due to lack of settlement action.</p> <p>It was suspected and reported in the last Annual Report to EW that final Suspended Solids levels had been degraded by difficulties controlling the minimum level of the final roadside holding pond. A plan was implemented to reconfigure the UV shed and final pump station level controls to reduce this effect. However this did not significantly improve the results.</p> <p>Our next step is to reduce influent turbulence scouring that may be disturbing the holding pond bed. This will be investigated further in the 2009-2010 period and WDC intends to create a project plan to modify the influent pipe manifold.</p> <p>3. The anaerobic ponds have been bypassed and are now effectively removed from the treatment process. If another solution can be devised to use them without releasing odours they will be recommissioned.</p> <p>4. The discharge flow meter recording of flows and discharge volumes is not providing trustworthy data. In the 2009-2010 period the outfall</p>

	Conditions	Comply Yes/No	Comments
			<p>pipe will be replaced. It is intended that this project will also renew the old pipework between the pump station and the new UV building. This will give an opportunity to replace the flowmeter and make other improvements to the mechanical elements.</p> <p>5. During the reporting period a number of service visits to the UV unit by the manufacturers representative have been required, due to damage from detritus pumped into the reactor. Bird skeletons, accumulated marine snail shells and small stones have been found. The damage to the lamp wiper system and lamp sleeves prompted us to do a thorough pipe inspection but no fault was found. Subsequently we have cleaned similar material out again. The pipe work upgrade between pumps and UV building will allow us to make a modification that reduces the potential for this damage.</p> <p>6. In the 2009-2010 period WDC will conduct an investigation of limitations and problems with the entire telemetry system. The following year it is intended that upgrade recommendations for improvement will be put in place.</p>
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>	Partial	<p>Environment Waikato was notified of pumping outside normal tidal discharge times.</p>

	Conditions	Comply Yes/No	Comments
20	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.	Yes	The annual report will detail any exceedances.
21	<p>The consent holder shall provide to the Waikato Regional Council, by 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>	N/A	This report is due 14 February 2010
22	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 charge prescribed in accordance with regulations made under section 360 of the Resource Management Act.	Yes	

