

Consent Name	Te Kauwhata Wastewater Treatment
Resource Consent	117991
Year	1 July 2013 – 30 June 2014
Date	30 September 2014

TE KAUWHATA WASTEWATER TREATMENT SYSTEM

ANNUAL REPORT 2013-14

RC 117991

The Waikato District Council (WDC) holds the above resource consent associated with the treatment and discharge of wastewater from the Te Kauwhata wastewater treatment plant (WWTP) to Lake Waikare. The consent was issued in 2013 and will expire in 2028.

The conditions issued by Waikato Regional Council include the following:

117991 Discharge to Lake Waikare a maximum of 3,600m³ of treated wastewater per day.
Discharge to Lake Waikare an average daily volume not exceeding 1,100m³ per day.

A review of the monitoring results during the 2013/14 reporting period indicates that the treatment system is operating in an effective manner and is fully compliant with consent conditions.

Discharge flows are compliant with the resource consent limits and the system is able to cope with heavy rainfall events. The maximum daily flow was 1,670m³ on 12 June 2014 while the daily average was 572m³ over the reporting period.

Discharge water quality parameters generally mirrored the previous reporting period.

The overall performance of the treatment plant has remained excellent with no more than minor environmental effect.

OPERATIONAL COMMENTS

Main Stepping Screen & Inlet: The stepscreen has performed adequately with only two events during the year. There were two inlet pump blockages that required attention during this period.

Aerators: The aeration system has been performing satisfactorily.

Wetland: The wetland requires some maintenance in terms of weed control and plant replacement; that work will commence in the 2014/15 period.

Rock Channel/Diffuser: The rock channel is showing some signs of blockage possibly due to the condition of the wetland and will continue to be monitored.

Staff Maintenance Visits: The plant is visited at least twice per week.

FUTURE WORKS

Regular meetings are continuing with the Te Kauwhata Wastewater Treatment Consultation Group (TKWTCG) and discussions will continue in order to bring effect to the funding set aside for water quality improvement and ecological enhancement of Lake Waikare.

Review of disposal options continues as is required by consent conditions with the next review due in to the TKWTCG late September 2014.

An assessment has also been carried out on the feasibility of flushing Lake Waikare with increased water flows from the Waikato River to improve the Lake water quality. The report is yet to be discussed with the TKWTCG and any pursuant action will be subject to the groups agreement.



.....
Mark Curtis
TREATMENT & OPERATIONS TEAM LEADER



.....
Martin Mould
WATERS MANAGER

DATA SUMMARY

July 2013 - June 2014 RC 117991 – Te Kauwhata WWTP

In Flow Summary	m3
Average Daily InFlow	557
Max Daily InFlow	2,061
Annual Inflow Total	202,045

Out Flow Summary Av Daily - 1,100 Daily Max - 3,600

Average Daily OutFlow	572
Max Daily OutFlow	1,670
Average Monthly Total	17,386
Max Monthly Total	28,648
Annual Outflow Total	208,627

Monthly Discharge to Lake Waikare		Consent Limit		Compliance	
Parameter		Median	90 Percentile	Median	90 Percentile
pH Between 6 & 9				0 / 12	0 / 10
cBOD5	g/cum	10	20	0 / 12	0 / 10
Suspended Solids	g/cum	15	25	1 / 12	1 / 10
TKN	g/cum	6	12	0 / 12	0 / 10
TN concentration	g/cum	8		2 / 12	n/a
Average Daily TN load	kg/day	8.8		0 / 12	n/a
TP concentration	g/cum	5.6		5 / 12	n/a
Average Daily TP load	kg/day	3.1		3 / 12	n/a

Discharge to Lake Fortnightly		Consent Limit		Compliance	
E-Coli	cfu/100ml	1500		5 / 26	

To determine compliance with the median limits (excluding E.coli), no more than six samples in any 12 consecutive monthly samples over the period 1 July to 30 June each year shall exceed the specified limit.

To determine compliance with the median E. coli limit, no more than 13 samples in any 26 consecutive fortnightly samples shall exceed the specified limit.

To determine compliance with the 90th percentile limits, no more than one sample in any ten consecutive monthly sampling events shall exceed the specified limit.

Compliance with the discharge quality conditions are summarized in the above table within the Compliance column. The measurement stated in the Compliance column cell indicates the number of test results exceeding the median or 90th percentile limit. The shading in the Compliance column cells indicates the state of compliance for each parameter; if the cell is shaded green the parameter is compliant, if the cell is shaded red the parameter is non-compliant.

EVENT SUMMARY	JULY 2013 - JUNE 2014	RC 117991 - TE KAUWHATA WWTP
	Nil to report.	
COMPLAINTS SUMMARY	JULY 2013 - JUNE 2014	RC 117991 - TE KAUWHATA WWTP
	Nil complaints during the 2013/14 period.	

The Te Kauwhata Wastewater Treatment Plant has generally operated in compliance with the conditions of Resource Consent 117991. Important matters to note and non-compliances are detailed below against the corresponding summary of the condition.

A summary of results are included in the spreadsheet above and a summary of compliance matters are included in the cover letter.

Condition Comments	
3	<p><i>The max volume of treated wastewater discharged to Lake Waikare shall not exceed 3,600m³ per day.</i></p> <ul style="list-style-type: none"> • Please see the attached summary spreadsheet.
4	<p><i>The annual average volume of treated wastewater discharged to Lake Waikare shall not exceed 1,100m³ per day.</i></p> <ul style="list-style-type: none"> • Please see the attached summary spreadsheet.
5-6	<p><i>The consent holder shall investigate alternative disposal locations for the disposal of treated wastewater from the Te Kauwhata Wastewater Scheme and, within two years of the commencement of this consent, shall provide a report to the Waikato Regional Council with a preliminary assessment of the alternative options.</i></p> <ul style="list-style-type: none"> • The report titled “Te Kauwhata Wastewater Treatment Disposal Options” was prepared by Pattle Delamore Partners in 2007 prior to the Resource Consent being granted. <p><i>Within two years of completion of the report required by condition 5 and every two years thereafter, the consent holder shall provide a further report on alternative options to the Waikato Regional Council and as a minimum the report shall provide:</i></p> <ol style="list-style-type: none"> a) <i>Details of the further investigations undertaken in relation to the alternative options identified in the report required by clauses (d) and (e) of condition 5 of this consent;</i> b) <i>An updated assessment of the practicability of implementing each of the options identified in clause (c) of condition 5 of this consent;</i> c) <i>Any proposed amendments to the assessments being undertaken pursuant to clause (d) of condition 5 of this consent and the rationale for this;</i> d) <i>Describe the consultation undertaken during the preparation of the report, in particular the consultation undertaken pursuant to condition 18 of this consent.</i> e) <i>Assess progress against the timetable contained in Appendix 2.</i> <ul style="list-style-type: none"> • A subsequent review of alternative disposal options will be complete on 20 September 2014 in time for discussion at the planned TKWTCG meeting at the end of September. • The Gantt Chart referred to as Appendix 2 will also be reviewed at the planned TKWTCG meeting.

7	<p>Notwithstanding the stated limits in conditions of this consent, the consent holder shall operate the treatment system with the objective of achieving the highest final effluent quality that can reasonably and practicably be achieved having regard to the capabilities of the treatment system, financial implications, the current state of technical knowledge and best wastewater management practice. For the avoidance of doubt, nothing in this condition requires the consent holder to achieve lower limits than those specified in condition 8 of this consent.</p> <ul style="list-style-type: none"> • WDC carries out sampling and tests over and above those required by the consent. This added process ensures that the treatment team is able to operate the treatment system with the target of attaining the highest final effluent quality.
8	<p>The consent holder shall ensure that the quality of the discharge to Lake Waikare shall comply with the following limits:</p> <ol style="list-style-type: none"> a) The median five day carbonaceous biochemical oxygen demand (cBOD5) concentration shall not exceed 10 grams per cubic metre and the 90th percentile shall not exceed 20 grams per cubic metre; b) The median suspended solids (SS) concentration shall not exceed 15 grams per cubic metre and the 90th percentile shall not exceed 25 grams per cubic metre; c) The median Total Kjeldahl Nitrogen (TKN) concentration shall not exceed 6 grams per cubic metre and the 90th percentile shall not exceed 12 grams per cubic metre; d) The median total nitrogen (TN) concentration shall not exceed 8 grams per cubic metre; e) The median total nitrogen load (TNload) shall not exceed 8.8 kilograms per day; f) The median total phosphorus (TP) concentration shall not exceed 5.6 grams per cubic metre; g) The median total phosphorus load (TPload) shall not exceed 3.1 kilograms per day; h) The median E-coli concentration in any 12 month period shall not exceed 1500 MPN per 100 mL. <ul style="list-style-type: none"> • Please see the attached summary spreadsheet. • This plant is fully compliant with discharge quality conditions.
9	<p>The consent holder shall continuously monitor the flow rate of wastewater entering and leaving the treatment plant and shall record the total daily influent and discharge volumes.</p> <ul style="list-style-type: none"> • Please see the attached summary spreadsheet.
13	<p>The consent holder shall prepare an Operations and Management Plan. This Plan shall be prepared by a suitably qualified and experienced person and shall detail how the treatment and disposal system is to be operated and maintained to ensure compliance with the conditions of this consent and consent 117992. The O & M Plan shall include a Botulism Management Plan developed in consultation with Auckland - Waikato Fish and Game and shall be reviewed and updated annually and as required as a result of any changes in plant operation or management.</p> <ul style="list-style-type: none"> • The draft plan is due for completion by the 30th September 2014.
15	<p>The consent holder shall ensure contractors are made aware of the conditions of this resource consent and ensure compliance with those conditions.</p> <ul style="list-style-type: none"> • All contractors employed at the treatment site are inducted in both health and safety procedures and relevant conditions of this consent.

16	<p><i>In conjunction with consent 117991 the consent holder shall maintain and keep a Complaints Register.</i></p> <ul style="list-style-type: none"> • Council's CRM database records all complaints from the public. There were nil complaints from the public during the consent year regarding the Te Kauwhata WWTP.
17	<p><i>The consent holder shall erect a total of four signs around the shoreline of Lake Waikare advising the public of the presence and associated potential public health risks of the treated wastewater discharge authorised by this consent. The signs shall be located such that they are clearly visible to the public. The location of, and wording on, the signs shall be to the satisfaction of the Waikato Regional Council, following consultation with the consent holder, Auckland Waikato Fish and Game, the Department of Conservation and the Ngaa Muka Development Trust.</i></p> <ul style="list-style-type: none"> • The signs, as agreed by the stated groups, were installed at four locations around the shoreline of Lake Waikare in August 2014.
18	<p><i>Within three months of the commencement of this consent, the consent holder shall invite parties with an interest in Lake Waikare, including but not limited to representatives of: Waikato-Tainui, Ngaa Muka Development Trust, Taniwha Marae, Waikare Marae, Horahora Marae, Maurea Marae, Okaerea Marae, Waahi Whaanui Trust, Auckland-Waikato Fish and Game, Department of Conservation, River and Catchment Services - Waikato Regional Council and the Lake Waikare Care Group to participate in the "Te Kauwhata Wastewater Treatment Consultation Group" ("TKWTCG").</i></p> <ul style="list-style-type: none"> • The TKWTCG has been formed with the following members: Tim Manukau (Waikato-Tainui), Kerri Neilsen (Waikato Regional Council), Andrew Styche (Department of Conservation), David Klee (Auckland-Waikato Fish and Game), Parvati Patel, Martin Mould and Karen Bredesen (Waikato District Council). The latest meeting was held Tuesday 25 March 2014. Another meeting is planned for late September 2014.
19	<p><i>The consent holder shall forward the results of the monitoring undertaken pursuant to conditions 8 and 11 to the Waikato Regional Council, via electronic means, within one month of receipt of the results by the consent holder.</i></p> <ul style="list-style-type: none"> • This information has been provided monthly, with exception during a period of high staff turnover (Nov 13 – Feb 14).
20	<p><i>The consent holder shall provide to the Waikato Regional Council and the TKWTCG a written report by 30 September each year, addressing the following:</i></p> <ol style="list-style-type: none"> <i>(i) A summary of the monitoring results required by conditions of this resource consent for the year ending 30 June;</i> <i>(ii) Critical analysis of the monitoring data collected and comments on any emerging trends;</i> <i>(iii) Comment on compliance with the conditions of this resource consent;</i> <i>(iv) Any reasons for non-compliance or difficulties in achieving compliance with the conditions of this resource consent and a description of and a summary of the efficacy of any remedial works undertaken;</i> <i>(v) Any ecological enhancement works undertaken by the consent holder in the Lake Waikare catchment; and</i> <i>(vi) Any other issue considered relevant to the consent holder.</i> <ul style="list-style-type: none"> • This report is submitted in compliance with this condition.

21	<p><i>The consent holder shall notify the Waikato Regional Council and members of the TKWTCC as soon as practicable after the consent holder has become aware of any occasion when the limits specified in condition 8 of this resource consent have been exceeded, or any accidental discharge, plant breakdown or other circumstance which is likely to result in the limits of this consent being exceeded. The consent holder shall, within 10 working days of the incident occurring, provide a written report to the Waikato Regional Council, identifying the breach, possible causes and steps to ensure future compliance.</i></p> <ul style="list-style-type: none">• There were no events which required WDC to make immediate notification during the reporting period.
----	---

