

Consent Name	Maramarua Wastewater Treatment System
Consent No.	101961
Year	1 July 2013 – 30 June 2014
Date	30 September 2014

MARAMARUA WASTEWATER TREATMENT SYSTEM

ANNUAL REPORT 2013 - 2014

RC 101961

The Waikato District Council (WDC) holds the above resource consent to discharge up to 6m³ of treated wastewater per day from the Maramarua wastewater treatment system (WWTP) to land. The consent is due for renewal in 2014 and currently has an application lodged with Waikato Regional Council.

Based on the available data flows from the plant have exceeded the maximum daily allowance on 32 days during the reporting period. The maximum daily flow of 31.3m³ was recorded in June 2014 after a rain event.

Infiltration during high rainfall periods continues to be problematic. This is a very small system with 8 houses connected and also a small consent limit of 6m³ per day. The ground water table is consistently high during winter months.

Reduced retention times, due to the peak flows, is a possible factor in the increasing trend in E.Coli and Faecal Coliform levels. In addressing the inflow & infiltration issues the bacteriological levels may reduce.

Proposed inflow and infiltration works include:

- Address root intrusions in the WWP3 to WWP2 line,
- Address displacement of laterals discharging to WWP2 to WWPI, and
- Address the various maintenance requirements for the individual lateral pipes.

OPERATIONAL COMMENTS

Staff Maintenance Visits: An operations staff member visits the site at least twice a week.


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


.....
Martin Mould
WATERS MANAGER

DATA SUMMARY

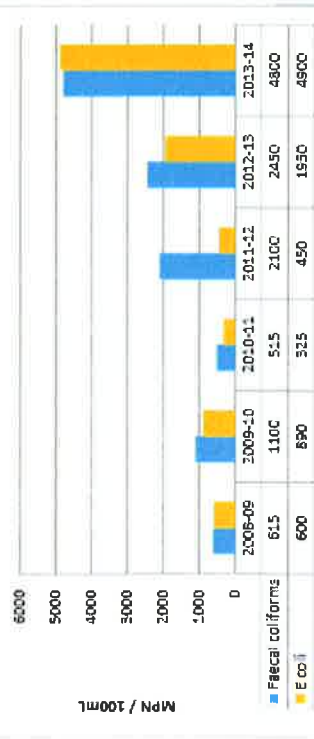
July 2013 - June 2014

RC 101961 - MARAMARUA WWTP

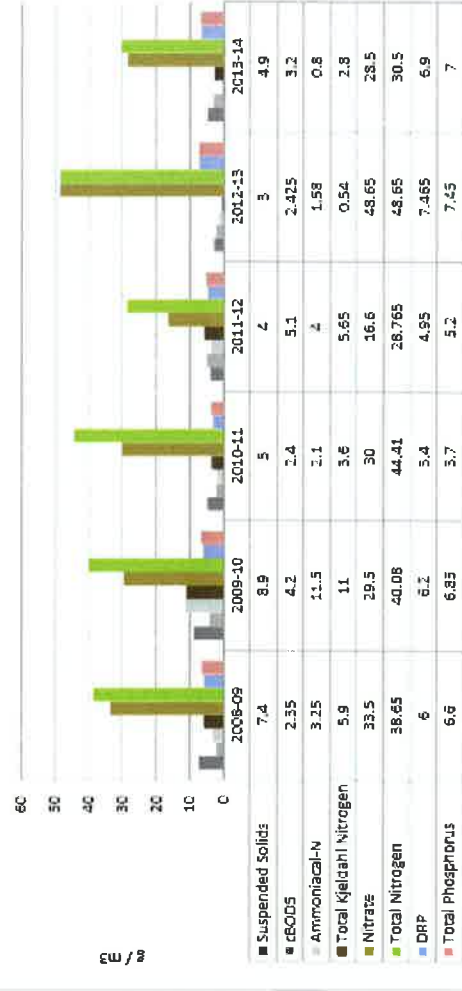
Out Flow Summary Reporting	
Average Daily OutFlow	3.4
Max Daily OutFlow	31.3
Average Monthly Total	98.3
Max Monthly Total	142.0
Annual OutflowTotal	1,179.8


Monthly Discharge to Land	Median	90 Percentile	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
pH Between 6 & 9	7.2	7.5	6.3	7.1	7.2	7.1	7.5	7.5	7.7	7.5	7.6	7.2	7.1	6.9
Suspended Solids g/m ³	4.9	152.6	3.8	3.0	3.0	4.0	707	3	8.1	<3	<2	<3	7	14
CBOD5 g/m ³	3.2	11.2	3.2	2.7	2.0	3.7	3.0	2	10.5	<2	<2	<2	10	14
Ammoniacal-N g/m ³	0.8	4.7	2.69	0.8	0.8	0.5	1.6	0.31	4.7	<0.010	0	0	3	5
Total Kjeldahl Nitrogen g/m ³	2.8	6.8	4.47	2.1	2.0	2.8	4.1	2	6.8	1	1	<0.10	8	7
Nitrate g/m ³	28.5	63.9	25.8	52.6	31.0	20.1	22.0	64	24.5	48.0	63.0	76.0	26.0	16.1
TN concentration g/m ³	30.5	64.2	28.40	53.88	31.8	20.59	23.58	84.31	29.20	48.00	63.38	76.08	28.50	20.20
DRP g/m ³	6.9	8.3	2.76	5.7	4.66	4.22	6.9	8.0	7.0	7.4	8.3	8.7	6.8	4.5
TP concentration g/m ³	7	8.2	3.1	6.1	4.66	4.40	6.82	8.2	7.7	7.2	8.0	9.0	7.1	5.1
Faecal coliforms MPN/100ml	4800	260000	16,000	90	1,700	32,000	300	100	510,000	4,800	4,800	4,500	280,000	203,000
E coli MPN/100ml	4900	254000	16,000	20	1,700	32,000	300	100	510,000	4,800	5,000	4,500	280,000	203,000

Faecal Coliform & E.Coli Trend



Discharge Quality Characteristics Trend



EVENT SUMMARY	JULY 2013 - JUNE 2014	RC 101961 - Maramarua	
WWTP	There are nil events to note apart from exceeding the daily discharge limit during weather events.		

DISTRICT COUNCIL
Te Kaunihera aa Takiwaa o Waikato

COMPLAINTS SUMMARY	JULY 2013 - JUNE 2014	RC 101961 - Maramarua
WWTP	Nil complaints for the reporting period.	

Postal Address
Private Bag 544
Ngaruawahia, 3742
New Zealand

0800 492 452
www.waikatodistrict.govt.nz

CONSENT SUMMARY July 2013 - June 2014 RC 101961 - Maramarua WWTP

The Maramarua Wastewater Treatment Plant is expected to operate in compliance with the conditions of Resource Consent 101961. Important matters to note and non-compliances are detailed below against the corresponding consent condition.

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

Conditions Comments	
*	<p><i>This consent authorises the Consent Holder to: Discharge up to 6 culm per day of treated domestic sewage into the ground from the Maramarua Wastewater Plant.</i></p> <ul style="list-style-type: none"> • There were 32 days during the reporting period which exceeded the daily maximum outflow. • The highest discharge recorded was 31.3 m³ on 11 June 2014.
1	<p><i>The activity authorised by this consent shall be carried out in accordance with the application for this resource consent and as identified in the resource consent conditions below.</i></p> <p><i>The site activity is carried out in accordance with the information contained in the application.</i></p> <ul style="list-style-type: none"> • The application to renew the Resource Consent was accepted by Waikato Regional Council on 29 May 2014. • WDC has held a consultation meeting for the 8 households which connect to this system and the neighbouring property owners. Good attendance was achieved. • Currently WDC is in the process of gaining approval from the adjacent neighbour and hope to complete this application as soon as can be achieved.
5 - 6	<p><i>The consent holder shall retain a suitably qualified and experienced person to compile an Operations Manual for the wastewater treatment and disposal facility. The consent holder shall manage and operate the treatment and disposal system in accordance with the Operations Manual described in condition 5 of this consent.</i></p> <ul style="list-style-type: none"> • Over the years the plant has been operated in accordance with the manufacturers recommendations. • A copy of the current Operations Manual is lodged with the Waikato Regional Council. • The Treatment Plant Team Leader is in the process of reviewing an updating the Operations Manual. This updated version will be submitted to WRC for approval.

7	<p><i>The treatment plant tanks shall be de-sludged as necessary and in particular within one month of notice in writing from the Waikato Regional Council to do so. Sludge shall be disposed of at a site approved by the Waikato Regional Council.</i></p> <ul style="list-style-type: none"> • The tanks will be de-sludged as necessary and waste taken to the Huntly septage disposal facility. • The most recent de-sludging of the primary septic tank was carried out in June 2013.
8	<p><i>There shall be no overland discharge of effluent from any part of the effluent treatment and disposal system.</i></p> <ul style="list-style-type: none"> • No overland discharge has occurred during the reporting period.
9 - 11	<p><i>There shall be no objectionable odour at or beyond the boundary of the land defined by Lot 2 DPS 16616 Blk IV Maramarua SD as a result of normal operations at the site.</i></p> <p><i>The consent holder shall ensure that all reasonable efforts are made to prevent or minimise odour effects, during plant maintenance activities.</i></p> <p><i>The consent holder shall maintain and keep a complaints register for complaints lodged with the consent holder concerning any aspects of operations (including odour) at this site.</i></p> <ul style="list-style-type: none"> • Council's CRM database records all complaints from the public. There were no complaints from the public during the consent year regarding the Maramarua WWTP.