

CONSENT MONITORING REPORT



Your Community Partner

Consent Name	Huntly Wastewater Treatment System
Consent No.	951126
Year	1 July 2010 – 30 June 2011
Date	27 September 2011
File No.	55 06 29M / USV03

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REPORT/COMMENTS

Huntly Wastewater Treatment Discharge 1 July 2010 – 30 June 2011

Resource consent 951126 authorises the Waikato District Council to discharge up to 6000 cubic metres per day of treated domestic wastewater from the Huntly oxidation pond and wetland system to the Waikato river. The application for the current consent was made in 1995 and expired on 30 September 2009. However an email from Ed Prince on 2 August 2011 confirmed that this consent report be extended to 30 June 2011 and the new consents 119647 and 119648 would be reported from 1 July 2011.

The Huntly wastewater treatment system showed continuing difficulty in meeting the “old” discharge consent conditions over the summer period for cBOD₅, Suspended Solids and Faecal Coliforms.

The wetland contributes to significant buffering of the final discharge pH thereby ensuring the toxic NH₃ form of the ammonia in the discharge plume to the river remains low.

The maximum daily flow was 6461 cubic metres per day in July 2010. The median maximum was 5051 cubic metres per day over the total reporting period.

Summary of Treatment Performance

Non-compliant Suspended Solids

The 90th Percentile target was 30 g/m³. The Target Maximum was 50 g/m³.

- Actual 90th Percentile value was 93 g/m³ up from 57.6 g/m³ in 2009/10.
- Maximum recorded value was 95 g/m³ in January 2011. High SS values in summer are indicative of the increased algae levels typical in a pond system.
- Median value was 47 g/m³, essentially unchanged from 45 g/m³ in the 2009/10 year.

Compliant Dissolved Reactive Phosphorous

The 90th Percentile target was 5 g/m³. The Target Maximum was 10 g/m³.

- Actual 90th Percentile value was 4.66 g/m³.
- Maximum recorded value of 5.3 g/m³ in January 2011 did not exceed the maximum limit and was down from 6.3 g/m³ in 2009/10.
- Median value was 4 g/m³ down from 5.2 g/m³ in 2009/10.

Partial Compliance Total Ammoniacal Nitrogen

The 90th Percentile target was 10 g/m³. The Target Maximum was 15 g/m³.

- The 90th Percentile value was 11.1 g/m³, down from 13.8 g/m³ in 2009/10.
- Maximum recorded value was 12.4 g/m³ in December 2010.
- Median value was 3.2 g/m³ down from 4.10 g/m³ in 2009/10.

Non-compliant Faecal Coliforms

The 90th Percentile target was 3000 MPN per 100mL.

- The 90th Percentile value was 5360 MPN/100 mL.
- Maximum recorded FC value was 30000 MPN/100mL in January 2011.
- Median value was 3100 MPN/100mL up from 2400 in 2009/10.

Partial Compliance Biological Oxygen Demand

The 90th Percentile target was 20 g/m³. The Target Maximum was 50 g/m³.

- The 90th Percentile was 30.7 g/m³ up from 14.94 g/m³ in 2009/10.
- Maximum was 44 g/m³, up from 17 g/m³ in 2009/10.
- Median value year was 15 g/m³ up from 12.3 g/m³ in 2009/10.

Summary of Nutrient load discharged to Waikato River

Total Nitrogen

- Median value for the 2010/11 year was 31.95 kg/day.
- Median summer value Dec-May for the 2010/11 year was 27.77 kg/day.
- The 90th Percentile value was 42.65 kg/day.
- Maximum recorded daily total was 47.12 kg/day in June 2011.
- Minimum recorded daily total was 15.07 kg/day in December 2010.

- Proposed future Median to December 2012 – 40 g/m³
- Proposed future Median after December 2012 – 25 g/m³
- Proposed future summer Median after December 2012 – 20 g/m³
- Summer December to May nominal maximum 28.5 kg/day (combined Huntly & Nga load to not exceed 57 kg/day)

Total Phosphorous

- Median value for the 2010/11 year was 11.32 kg/day.
- Median summer value Dec-May for the 2010/11 year was 11.32 kg/day
- The 90th Percentile value was 14.72 kg/day.
- Maximum recorded monthly total was 15.10 kg/day in August 2010.
- Minimum recorded monthly total was 4.33 kg/day in December 2010.

- Proposed future Median to December 2012 – 8 g/m³
- Proposed future Median after December 2012 – 8 g/m³
- Proposed future summer Median after December 2012 – 8 g/m³
- Summer December to May nominal maximum 8.65 kg/day (combined Huntly & Nga load to not exceed 17.3 kg/day)

Operational Comments

Septage Receiving Plant:

Most of the early problems with this plant have been resolved and it generally provides good screening of rags.

Main Stepping Screen:

This works well and there have been no major problems.

Aerators:

The aspirating aerators have been removed for modification and will be operational by late October 2011. The cage rotors work well and provide good dissolved oxygen levels.

Wetland:

These continue to assist with improving water quality. All drains that interconnect each pond were cleared of weeds to improve flows. Stop banks adjacent to the rock filters were topped up to prevent overflows. There were no incidents of overflows from the wetlands during winter months.

Staff Maintenance Visits:

A dedicated staff member visits the site twice a week.

Work In Progress:

Council has engaged consultants (Cliff Boyt Consulting and MWH Consultants) to address the more stringent consent conditions that will apply from 1 December 2012. By 30 September 2011, Waikato Regional Council will receive a report covering:

- Options that have been considered
- How options have been compared
- A short list of preferred options
- A process of how to get to the decision of a final option by February 2012.

Cliff Boyt has been liaising with Trisha Simonson.

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OPERATIONS MANAGER

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GENERAL MANAGER
WATER & FACILITIES