6/12/2022: Rāhui Pōkeka WWTP Korero :

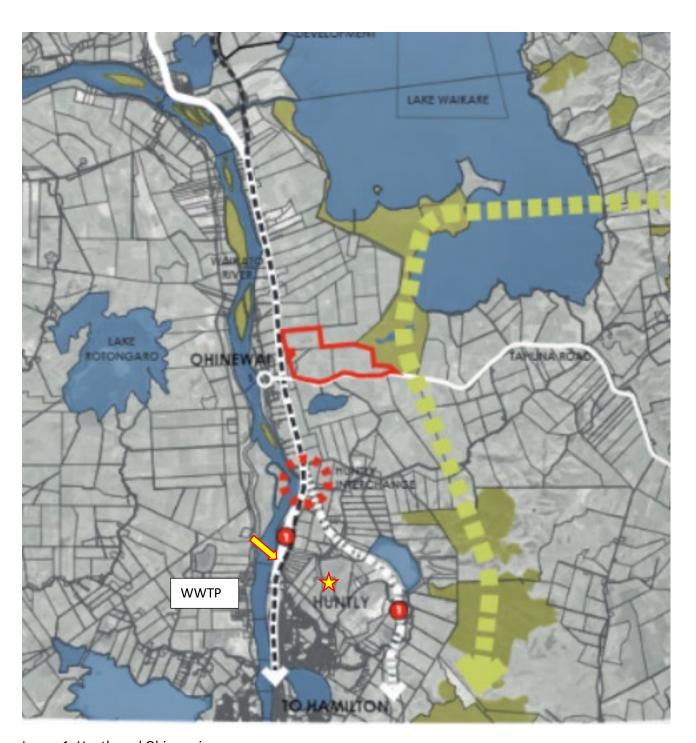


Image 1: Huntly and Ohinewai



Image 2: Aerial

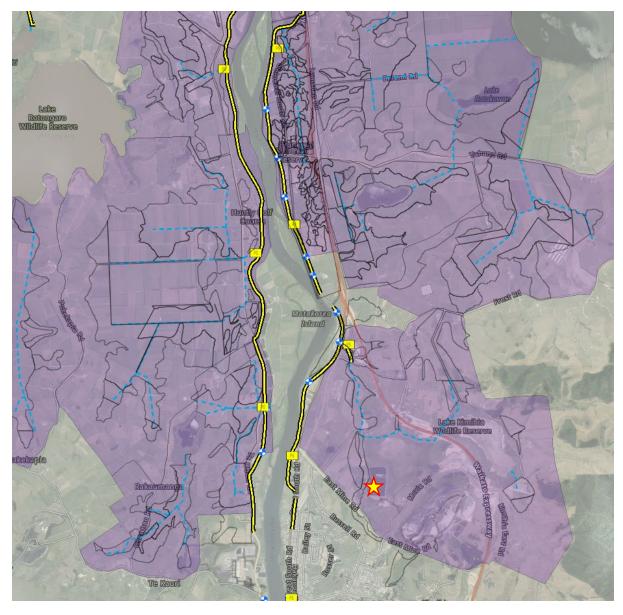
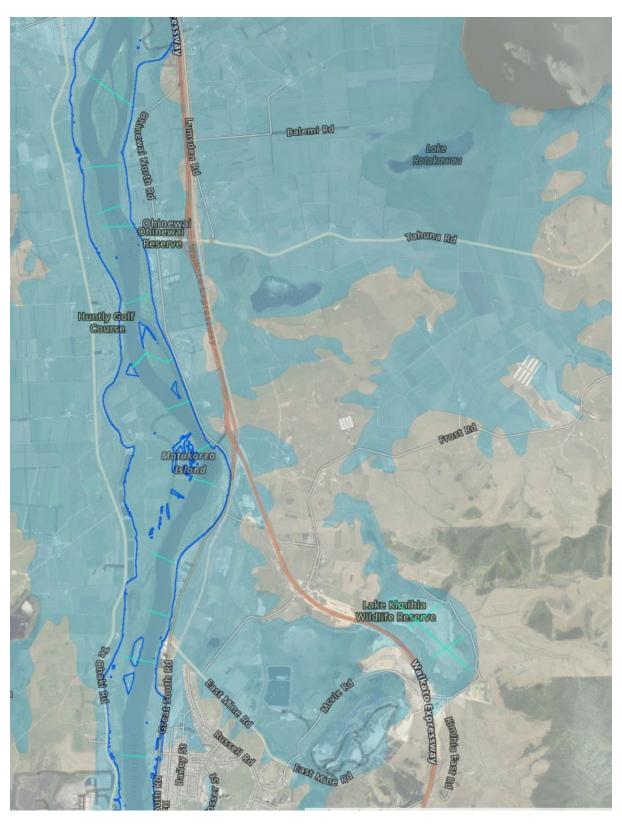


Image 3: Flood Scheme (yellow = stopbanks)



 $Image \ 4: River \ Flooding \ (dark \ blue - 1\% \ AEP \ (1 \ in \ 100 yr) \ light \ blue \ (Regional \ scale \ flood \ hazard)$

 $\frac{https://waikatoregion.maps.arcgis.com/apps/MapSeries/index.html?appid=f2b48398f93146e8a5cf0}{aa3fddce92c}$

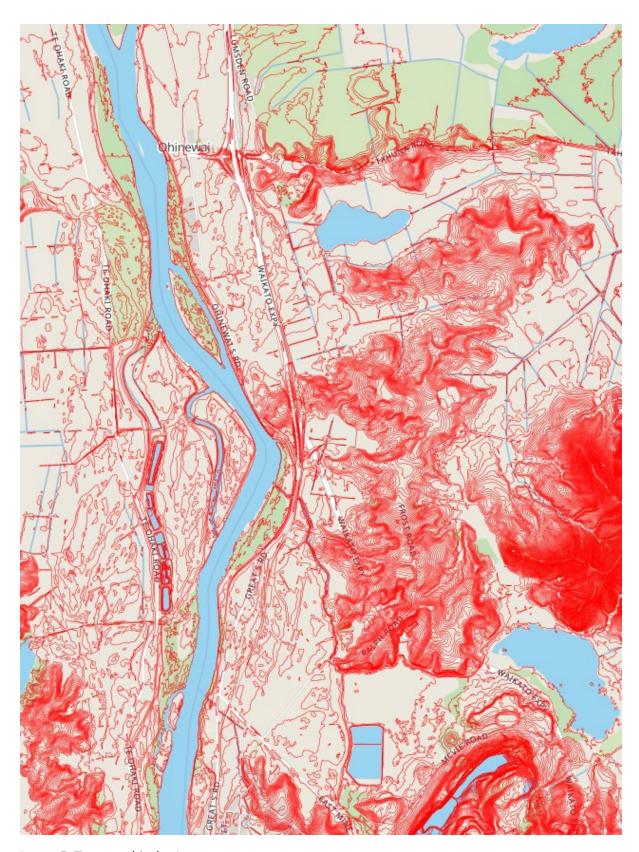


Image 5: Topographical – 1m

Resource Consent Certificate

Resource Consent:

119647

File Number:

60 28 01A

Pursuant to the Resource Management Act 1991, the Waikato Regional Council hereby grants consent to:

> Waikato District Council Private Bag 544 Ngaruawahia 3742

(hereinafter referred to as the Consent Holder)

Consent Type:

Discharge permit

Consent Subtype:

Discharge to water

Activity authorised:

Discharge up to 11,500 cubic metres per day of treated wastewater

from the Huntly WWTP into the Waikato River

Location:

East Mine Road - Huntly (Huntly WWTP)

Map Reference:

NZMS 260 S13:010-059

Consent Duration:

This consent will commence on the date of decision notification, unless

otherwise stated in the consent's conditions, and expire on 31-March 2029

Subject to the conditions overleaf:

Discharge quantity

 The maximum volume of treated wastewater discharged shall not exceed 11,500 cubic metres per day.

Discharge quality

- The consent holder shall ensure that prior to 1 December 2012, the quality of the discharge immediately after all controlled treatment processes and before any wetlands shall comply with the following limits;
 - The pH of the discharge shall not be less than 6 or greater than 9 pH units;
 - The median five day carbonaceous biochemical oxygen demand concentration shall not exceed 30 grams per cubic metre and the 90th percentile shall not exceed 90 grams per cubic metre;
 - The median suspended solids concentration shall not exceed 90 grams per cubic metre and the 90th percentile shall not exceed 150 grams per cubic metre;
 - The median ammoniacal-nitrogen concentration shall not exceed 18 grams per cubic metre and the 90th percentile shall not exceed 30 grams per cubic metre;
 - The median total nitrogen concentration shall not exceed 40 grams per cubic metre;
 - vi) The median total phosphorus concentration shall not exceed 8 grams per cubic metre;
 - vii) The median Escherichia coli (E.coli) concentration shall not exceed 3,500 MPN per 100 millilitres.

For the purposes of this condition, to determine compliance with the median limits 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 90th percentile limits, no more than one sample in any ten consecutive monthly sampling events shall exceed the specified limit.

- 6. The consent holder shall ensure that, no later than 1 December 2012, the quality of the discharge immediately after all controlled treatment processes and before any wetlands shall comply with the following limits:
 - i) The pH of the discharge shall not be less than 6 or greater than 9 pH units;
 - The median five day carbonaceous biochemical oxygen demand concentration shall not exceed 30 grams per cubic metre and the 90th percentile shall not exceed 60 grams per cubic metre;
 - The median suspended solids concentration shall not exceed 30 grams per cubic metre and the 90th percentile shall not exceed 100 grams per cubic metre;
 - The median ammoniacal-nitrogen concentration shall not exceed 10 grams per cubic metre and the 90th percentile shall not exceed 20 grams per cubic metre;
 - The median total nitrogen (TN) concentration shall not exceed 25 grams per cubic metre;
 - vi) The median summer (December to May inclusive) total nitrogen (TN_{summer}) concentration shall not exceed 20 grams per cubic metre;
 - The median summer (December to May inclusive) total nitrogen load (TN_{load}) for Ngaruawahia Wastewater Treatment Plant and Huntly Wastewater Treatment Plant combined shall not exceed 57 kilograms per day;
 - The median total phosphorus (TP) concentration shall not exceed 8 grams per cubic metre;
 - ix) The median summer (December to May inclusive) total phosphorus (TP_{summer}) concentration shall not exceed 8 grams per cubic metre;
 - The median summer (December to May inclusive) total phosphorus load (TP_{load}) for Ngaruawahia Wastewater Treatment Plant and Huntly Wastewater Treatment Plant combined shall not exceed 17.3 kilograms per day;
 - The median Escherichia coli (E-coli) concentration in any 12 month period shall not exceed 126 cfu per100 millilitres.

For the purposes of this condition, 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 summer median limits, no more than 3 of the 6 monthly samples in any given summer (December to May) shall exceed the specified limit. To determine compliance with the median *E.coli* limit, no more than 26 samples in any 52 consecutive weekly 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.

Note: The discharge of treated wastewater to the Waikato River from the Ngaruawahia Wastewater Treatment Plant is authorised by consent 119642.

Images 6,7,8: Discharge Consent





CONSENT SUMMARY REPORT

Data Summary	Jun-2022						RC119647 - Huntly					
Inflow Summary Reporting	m³											
Average Daily Inflow	2,173											
Max Daily Inflow	9,711											
Average Monthly Total	66,055											
Max Monthly Total	107,861											
Annual Inflow Total	792,658											
PWWF/ADWF Ratio	5.5											
Outflow Summary Reporting	Daily Limit - 11500 m3											
Average Daily Flow	2,199											
Max Daily Flow	5,895											
90th Percentile Daily Flow	4.984											
Average Monthly Total	66,936											
Max Monthly Total	124,712											
Annual Outflow Total	803,235											
Annual Outflow Total	803,235	Consen	t I imits	Trigge	r Limit	Meas	ured	Comp	liance			
Annual Outflow Total Discharge Monthly Tests	,	Consen			r Limit		sured 90%ile		liance 90%ile			
Annual Outflow Total Discharge Monthly Tests Parameters	803,235 Unit	Median	t Limits 90%ile	Median	r Limit 90%ile	Median	sured 90%ile	Median	liance 90%ile	Compli		
Annual Outflow Total Discharge Monthly Tests Parameters pH	Unit	Median 9.0	90%ile			Median 7.7	90%ile	Median 0 / 11	90%ile			
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5	Unit g/m3	Median 9.0 30.0	90%ile 60.0	Median		Median 7.7 5.2	90%ile 11.0	Median 0 / 11 1 / 11	90%ile 0 / 11			
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen	Unit g/m3 g/m3	9.0 30.0 10.0	90%ile	Median		7.7 5.2 2.5	90%ile	Median 0/11 1/11 5/11	90%ile	Compli		
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen Total Nitrogen	Unit g/m3 g/m3 g/m3	9.0 30.0 10.0 25.0	90%ile 60.0	Median		Median 7.7 5.2	90%ile 11.0	Median 0 / 11 1 / 11	90%ile 0 / 11	Compli		
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen Total Nitrogen Total Nitrogen (Summer Limit Dec-May)	Unit g/m3 g/m3 g/m3 g/m3	9.0 30.0 10.0 25.0 20.0	90%ile 60.0	Median		7.7 5.2 2.5 18.0	90%ile 11.0	Median 0/11 1/11 5/11 1/11 1/5	90%ile 0 / 11	Compli X Compli		
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen Total Nitrogen Total Nitrogen (Summer Limit Dec-May) Total Phosphorus	Unit g/m3 g/m3 g/m3 g/m3 g/m3	9.0 30.0 10.0 25.0	90%ile 60.0	Median		7.7 5.2 2.5 18.0	90%ile 11.0	Median 0/11 1/11 5/11 1/11	90%ile 0 / 11	Compl X Compl		
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen Total Nitrogen Total Nitrogen (Summer Limit Dec-May) Total Phosphorus Total Phosphorous (Summer Limit Dec-May)	Unit g/m3 g/m3 g/m3 g/m3 g/m3 g/m3	Median 9.0 30.0 10.0 25.0 20.0 8.0	90%ile 60.0	Median		Median 7.7 5.2 2.5 18.0 - 2.3	90%ile 11.0	Median 0/11 1/11 5/11 1/11 1/5 0/11	90%ile 0 / 11	Compli Compli		
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen	Unit g/m3 g/m3 g/m3 g/m3 g/m3	9.0 30.0 10.0 25.0 20.0 8.0 8.0	90%ile 60.0 20.0	Median		7.7 5.2 2.5 18.0 - 2.3	90%ile 11.0 22.7	Median 0/11 1/11 5/11 1/11 1/5 0/11 0/5	90%ile 0 / 11 2 / 11	Compli X Compli		
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen Total Nitrogen Total Nitrogen (Summer Limit Dec-May) Total Phosphorus Total Phosphorous (Summer Limit Dec-May) Total Suspended Solids E.Coli	9/m3 g/m3 g/m3 g/m3 g/m3 g/m3 g/m3 CFU/100ml	Median 9.0 30.0 10.0 25.0 20.0 8.0 8.0 30.0 126.0	90%ile 60.0 20.0	Median 8.5	90%ile	Median 7.7 5.2 2.5 18.0 - 2.3 - 24.0 1.2	90%ile 11.0 22.7 56.0	Median 0/11 1/11 5/11 1/11 1/5 0/11 0/5 4/11 1/52	90%ile 0/11 2/11	Compli Compli Compli		
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen Total Nitrogen Total Nitrogen (Summer Limit Dec-May) Total Phosphorus Total Phosphorous (Summer Limit Dec-May) Total Suspended Solids E.Coli	9/m3 g/m3 g/m3 g/m3 g/m3 g/m3 g/m3	Median 9.0 30.0 10.0 25.0 20.0 8.0 8.0 30.0 126.0	90%ile 60.0 20.0	Median 8.5		Median 7.7 5.2 2.5 18.0 - 2.3 - 24.0 1.2	90%ile 11.0 22.7	Median 0/11 1/11 5/11 1/11 1/5 0/11 0/5 4/11 1/52	90%ile 0 / 11 2 / 11	Compli Compli Compli Compli		
Annual Outflow Total Discharge Monthly Tests Parameters pH CBOD5 Ammonical Nitrogen Total Nitrogen Total Nitrogen (Summer Limit Dec-May) Total Phosphorus Total Phosphorous (Summer Limit Dec-May) Total Suspended Solids	9/m3 g/m3 g/m3 g/m3 g/m3 g/m3 g/m3 CFU/100ml	Median 9.0 30.0 10.0 25.0 20.0 8.0 8.0 30.0 126.0	90%ile 60.0 20.0 100.0	Median 8.5	90%ile	Median 7.7 5.2 2.5 18.0 - 2.3 - 24.0 1.2	90%ile 11.0 22.7 56.0	Median 0/11 1/11 5/11 1/11 1/5 0/11 0/5 4/11 1/52 Comp	90%ile 0/11 2/11	Compli Compli Compli Compli Compli		

Image 9: Huntly Annual Report (WRC 1/7/2021 – 30/6/2022)

_					
4	Α	В	С	D	
1		Rag	Huntly	Ma	
2		Faecal Coliform	Enterococci	E. coli	
3	Jul-22		6.6	340.0	
1		18.0		1.6	
5			6.6		
3					
3		0400 0		0.8	
0	Aug-22	8100.0		0.8	
1				0.8	
2				0.8	
2				0.0	
4					
5	Sep-22	13.0		4.9	
6				3.3	
7				3.3	
8				20.0	
9					
0					
1	Oct-22	0.8		0.8	
2				1.6 42.0	
4				13.0	
5				13.0	

Huntly	Partial by-pass of	As reported to WRC, the region experienced extreme weather impacting wastewater plant inflows and
	final UV treatment	pond levels. To prevent pond overtopping at Huntly a temporary pump was installed in June to send pond
		water directly to the wetland. This portion of flow bypassed the UV. Additional lab monitoring was
		undertaken to assess this. Extreme weather resulted in the Kimihia Stream overwhelming the wetland in
		July. Normal operations resumed 04/08/2022. Lab results are still being received and analysed. Report to
		be sent in August. The results in the attached compliance update need to be evaluated with the event
		sampling results in the pending report. After 08/08/22 normal twice-monthly sampling resumed from the
		post UV outlet.

	Huntly																
	рН	cBOD5	Ammoniacal Nitrogen	Total Nitrogen	Total Phosphorus	Total Suspended Solids	OutflowMin	OutflowAvg	OutflowMax	OutflowTotal	InflowMin	InflowAvg	InflowMax	InflowTotal	TN Load	TP Load	
Jul-22	7.200	3.900	5.280	8.000	1.040	12.800	2557.1	5858.3	8012.6	181607.7	1980.2	5942.0	12094.2	184202.7	46.9	6.1	
Aug-22	7.400	3.100	13.300	17.000	2.270	11.000	3027.1	4202.4	7892.0	130274.0	2125.3	4001.7	8635.8	124052.5	71.4	9.5	
Sep-22	7.500	3.200		25.000	1.700	5.200	4272.0	4618.4	5382.8	138553.2	2588.1	4134.7	11419.2	124039.9	115.5	7.9	
Oct-22	7.600	5.700	18.000	20.000	1.470	8.400	1161.3	3926.9	7190.0	121733.2	2045.4	3814.7	10245.6	118257.0	78.5	5.8	
	Median limit ex	ceeded															
Key			d/max value exc	eeded													
-	Results meas		211101110101010														
	Load measure																
Note:	Results prese	nted in this tab	ole are prelimin	ary and subjec	t to change												
					_												

Images 10,11,12: WRC Monthly Update – Oct 2022