

Waikato District Council Wastewater Treatment Monitoring Results  
 Site Raglan  
 Consent number 971390  
 Report date Jul 08 to Jun 09

Discharge Limit Transgression	
Minor transgression	
Suspect/Missing Sample	
Value actually < number shown i.e <2 MPN/100mL	

1 Discharge Limits - Monthly Tests from Outlet Post UV																
Parameter	Unit	Consent value														
		90 Percentile	Median	Median	10 Percentile	90 Percentile	Average	Maximum	1-Jul-08	9-Jul-08	17-Jul-08	28-Jul-08	4-Aug-08	13-Aug-08	21-Aug-08	28-Aug-08
BOD (median from 12)	g/cum	20	10	11.00	5.90	20.40	12.17	29.00	7	6.7				3.8		
SS (median from 12)	g/cum	30	20	58.50	27.00	100.00	62.85	160.00	21	27		9.5		87		
FC (median over 12 samples)	MPN/100ml	43	14	2.00	2.00	10.00	41.44	1100.00	2	4	10	10	2	6	2	2
FC (less suspect high value samples)	MPN/100ml			2.00	2.00	10.00	8.32	74.00	2	4	10	10	2	6	2	2
Enterococci (six week period 15 Dec-30 Jan)	MPN/100ml		35	20.00	12.00	91.00	41.00	130.00	2	20	10	10	2	2	2	2
Enterococci (entire reporting period)	MPN/100ml			8.00	2.00	250.00	556.23	13000.00	2	20	10	10	2	2	2	2
Enterococci (less suspect high value samples)	MPN/100ml			2.00	2.00	67.60	35.97	420.00	2	20	10	10	2	2	2	2

2 Characterisation Values - Monthly Tests from Outlet Post UV																
Parameter	Units															
		Median	10 Percentile	90 Percentile	Average	Maximum	1-Jul-08	9-Jul-08	17-Jul-08	28-Jul-08	4-Aug-08	13-Aug-08	21-Aug-08	28-Aug-08	5-Sep-08	
E Coli	MPN/100ml	4	2	446	161	1100		4					6			
Total Ammoniacal Nitrogen	g/cum	3.20	0.02	9.60	4.07	10.00		5.7					9.5			
TKN	g/cum	6.90	5.88	11.60	8.12	14.00		8.1					14			
Nitrate NO3-N	g/cum	6.40	3.16	9.08	6.01	11.00		6.4					1.4			
Nitrite NO2-N	g/cum	0.36	0.09	1.37	0.68	3.30		0.27					0.11			
Total Nitrogen	g/cum	12.82	0.00	16.52	8.89	17.26		14.77					15.51			
DRP	g/cum	2.70	1.70	3.56	2.73	3.80		3.3					2.7			
TP	g/cum	3.10	2.68	4.04	3.20	4.20		3.6					3.1			
Temp	*C	21.00	13.00	24.00	18.76	25.50					6.04					
Dissolved Oxygen		5.45	4.90	11.10	6.66	13.30					13.3					
Alkalinity	g/cum	100	93	112	101	120		99					99			
pH		7.85	7.20	8.63	7.94	8.84					7.66					
Conductivity	uS	485	465	564	515	789					445					
UV Transmittance	%T, 1 cm cell	30.00	20.00	43.00	31.81	53.00	38	45			53			22		
UV Absorbance	AU, 1 cm cell	0.52	0.37	0.69	0.52	0.91	0.425	0.345			0.276			0.666		

3 Characterisation Values - Daily Total Flows																
Consent limit cum/day	2600															
Date	Flow cum/day															
		Maximum 20?	Median	10 Percentile	90 Percentile	Average	Maximum	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09
Minimum Daily Flow	cum/day		0	0	837	564	950	950	0	0	0	0	0	286	449	0
Average Daily Flow	cum/day		995	819	2067	1204	2152	2152	2138	1350	1200	821	918	1007	984	716
Maximum Daily Flow	cum/day		1858	1405	4026	2256	4147	4147	4147	2938	1814	1814	1901	1901	1814	1359
Total Monthly Flow	cum/day		29859	21539	58304	34298	66701	66701	59875	39139	31190	22177	20201	31224	28529	21468
Number of Days Discharged Outside Tides (maximum 20)		17						8	7	2	0	0	0	0	0	0

Heavy local rain July, August, September 2009

9-Sep-08	17-Sep-08	24-Sep-08	2-Oct-08	9-Oct-08	14-Oct-08	31-Oct-08	19-Nov-08	12-Dec-08	17-Dec-08	29-Dec-08	8-Jan-09	14-Jan-09	22-Jan-09	30-Jan-09	5-Feb-09	11-Feb-09	16-Feb-09	24-Feb-09	3-Mar-09	11-Mar-09	25-Mar-09	21-Apr-09	14-May-09	16-Jun-09
9.6			4.2		6.4		20	12	8.7	10	12	11	29	12		15			24	14	16	11	8.9	5.9
75			72		33		45	42	27	32	40	68	130		84	60			67	100	160	100	57	37
	2	10	1	2	2	1	2	1100	2	6	1	10	10	9	10	2	74	24	2	4	2		8	2
	2	10	1	2	2	1	2		2	6	1	10	10	9	10	2	74	24	2	4	2		8	2
	2	10	1	2	2	420	2	250	52	130	14	20	20	10	40	13000	8	2	2	3200	2		2	
	2	10	1	2	2	420	2	250	52	130	14	20	20	10	40	13000	8	2	2	3200	2		2	
	2	10	1	2	2	420	2	250	52	130	14	20	20	10	40		8	2	2		2		2	

9-Sep-08	17-Sep-08	24-Sep-08	2-Oct-08	9-Oct-08	14-Oct-08	31-Oct-08	19-Nov-08	12-Dec-08	17-Dec-08	29-Dec-08	8-Jan-09	14-Jan-09	22-Jan-09	30-Jan-09	5-Feb-09	11-Feb-09	16-Feb-09	24-Feb-09	3-Mar-09	11-Mar-09	25-Mar-09	21-Apr-09	14-May-09	16-Jun-09
					2			1100				10				2				2				
5.4					10			1.6				3.2				1.2					0.02		0.009	
9.1					11			6.3				6.9				6					5.8		5.9	
3.7					3.6			7.6				5.2				6.6					8.6		11	
0.021					0.18			3.3				0.65				0.89					0.38		0.36	
12.821				0	14.78			17.2			0	12.75			0	13.49			0	14.78		17.26	0	0
1.7					2.4			3.8				3.5				3.4					1.7		2.1	
2.2					2.8			4.2				4				3.1					2.8		3	
			17.3	17.1								25.5	21	24					22.4	21.1	23.7		15.2	13
			5.63	5.4								6.3	4.9	4.2					5.42	5.45	4.97		11.1	6.6
81					120			100				110				100				96		100		
			6.5	7.2								8.25	8.84	7.85					8.6	8.4	7.85		8.63	7.59
			490	481								505	488	475					485	474	465		564	789
29			32		43		19	29	40	38	33	20			28	30			29	30	12	25	35	38
0.531			0.495		0.367		0.722	0.536	0.396	0.418	0.479	0.691			0.556	0.522			0.543	0.525	0.909	0.611	0.45	0.424

Apr-09	May-09	Jun-09
0	572	0
819	1425	923
1348	2074	1814
22922	44161	23985
0	0	0