

Waikato District Council Wastewater Treatment Monitoring Results  
 Site Raglan  
 Consent number 971390  
 Report date Jul 09 - June 10

Minor Transgression or Exceedance	
Discharge Transgression or Limit Exceeded	
suspect data or no data recorded	
Value actually < number shown i.e <2 MPN/100mL	

1 Discharge Limits - Monthly Tests from Outlet		Consent value	Consent value																						
Parameter	Unit	Median	90 Percentile	Median	10 Percentile	90 Percentile	Average	Maximum	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	17-Dec-09	23-Dec-09	30-Dec-09	7-Jan-10	12-Jan-10	20-Jan-10	12-Feb-10	2-Mar-10	15-Apr-10	5-May-10	16-Jun-10	25-Jun-10
SS (median from 12)	g/cum	20	30	74	7.1	116	62	130	9.3	30	17	15	43	87	130	98	120	110	83	75	74	114	38	3.9	2.3
cBOD5 (median from 12)	g/cum	10	20	12	5.3	20	13	26	1.7	13	7.5	5.6	18	18	24	12	11	17	15	8	7.9	10	4.8	26	15
FC (median from 12)	MPN/100ml	14	43	2	2	38	290	4800	1	4800	2	1	2	10	10	70	2	2	2	2	2	2	16	2	2
Enterococci (17 Dec - 30 Jan)	MPN/100ml	35	5 of 6 weekly samples	6	2	10	6	10							10	10	10	2	2	2	2	2	2	2	2

2 Characterisation Values - Monthly Tests from Outlet Post UV																								
Parameter	Units	Median	10 Percentile	90 Percentile	Average	Maximum	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	17-Dec-09	23-Dec-09	30-Dec-09	07-Jan-10	12-Jan-10	20-Jan-10	12-Feb-10	2-Mar-10	15-Apr-10	5-May-10	16-Jun-10	25-Jun-10	
E Coli	MPN/100ml	2	2	2	2	2									2									
Total Ammoniacal Nitrogen	g/cum	1	0	3	1	3							3	1.7	0.16	0.073	0.11		0.27	1.34	1.35	2.5	2.3	
TKN	g/cum	5	4	9	6	11							11	3.8	8.7	6.7	5		5	6.7	4.4	4.5	4.3	
Nitrate NO3-N	g/cum	9	4	11	8	12							5.6	8.9	11	12	9.7		4.4	3.1	6.2	9.4	10.2	
Nitrite NO2-N	g/cum	0.760	0.299	1.780	0.897	2.500							2.5	1.7	0.93	0.82	0.8		0.36	0.29	0.3	0.55	0.72	
Total Nitrogen	g/cum	15	10	20	15	21							19.1	14.4	20.63	19.52	15.5		9.76	10.09	10.9	14.45	15.22	
DRP	g/cum	4	2	5	4	5							4.2	3.8	2.9	2.1	3.9		1.8	4.7	5.3	4.6	3.7	
TP	g/cum	5	4	6	5	6							5.3	4.7	4.8	4	5.4		2.7	5.7	5.6	4.7	4	
Temp	°C	21	14	25	20	27	10.8	15.2		17.4	19.6	20.8	23	22	22.4	23	26.6	26.6	23.5	21.2	19.2	14.1	13.5	
Dissolved Oxygen	g/cum	6	5	10	7	11	6.21	4.2	5.41	6.51	5.38	5.5	7.82	10.59	5.42	4.99	5.65	5.35	5.58	7.49	6.63	11.23	8.98	
Alkalinity	g/cum	89	23	131	81	144	7.78	7.28	7.54	7.6	7.86	8.79		0.056	9.42	9.63	9.1	9.19	9.4	8.64	7.47	7.67	7.48	
pH		8	7	9	8	10	7.78	7.28	7.54	7.6	7.86	8.79	8.2	9.06	9.42	9.63	9.1	9.19	9.4	8.64	7.47	7.67	7.48	
Conductivity	uS	512	464	891	595	1235	778	707	622	514	476	502	480	463	512	507	530	9.2	1235	970	839	464	506	
UV Transmittance	%T, 1 cm cell	37	14	52	35	56			52	51	35	16	13	25	19	56	51	13	37	23	39	41	51	
UV Absorbance	AU, 1 cm cell	0	0	1	0	1			0.29	0.29	0.45	0.797	0.9	0.808	0.729	0.249	0.289	0.51	0.434	0.634	0.404	0.389	0.284	

3 Characterisation Values - Daily Total In Flows (From Marine Parade Pump Station)																		
Date	Flow cum/day	Median	10 Percentile	90 Percentile	Average	Maximum	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Minimum Daily In Flow	cum/day	701	217	813	644	1059	815	686	465	756	673	172	798	713	707	695	189	1059
Average Daily In Flow	cum/day	931	737	1339	1051	2220	1364	921	941	1066	804	921	1115	850	724	730	959	2220
Maximum Daily In Flow	cum/day	1956	830	3389	2160	4516	2824	1785	3217	2127	1050	2303	3408	1275	749	805	1759	4516
Total Monthly In Flow	cum/day	28392	22165	39054	31116	66614	39554	28544	28244	30903	24113	28539	34554	23795	21984	19705	26842	66614

SCADA comms fault

4 Characterisation Values - Daily Total Out Flows																			
Consent limit cum/day	2600																		
Date	Flow cum/day	Maximum 207	Median	10 Percentile	90 Percentile	Average	Maximum	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Minimum Daily Out Flow	cum/day	381	31	955	516	1121	944	755	287	2	340	372	652	377	0	385	1121	956	
Average Daily Out Flow	cum/day	990	768	1702	1173	2498	1730	1062	920	1455	818	912	1115	1008	654	763	1288	2498	
Maximum Daily Out Flow	cum/day	1580	1234	3399	1827	3878	1910	1733	1664	3878	340	1609	1520	1550	1531	1214	1414	3564	
Total Monthly Out Flow	cum/day	28825	20987	52768	34585	74930	53621	32909	27604	45092	24531	28260	30086	28217	19791	20593	29390	74930	
Number of Days Discharged Outside Tides (maximum 20)		9								4								5	

SCADA comms fault

The communications radio links from the UV pump station was faulty and the repair took forever

5 Characterisation Values - UV Discharge Outlet Comparison 2007-08 to 2009-2010 Results											
Parameter	Unit	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2009-10
SS	g/cum	61.75	58.50	74	80.90	100.00	116	54.01	62.85	62	
cBOD5	g/cum	13.00	11.00	12	19.17	20.40	20	11.77	12.17	13	
FC	MPN/100ml	1425.00	2.00	2	5300.00	10.00	38	1947.09	41.44	290	
Enterococci (17 Dec - 30 Jan)	MPN/100ml	570.00	20.00	6	1312.70	91.00	10	576.00	41.00	6	