

Waikato District Council Wastewater Treatment Monitoring Results

Site: Ngaruawahia  
 Consent number: 100972  
 Report date: Jul 07 to Jun 08

Discharge Transgression	
Discharge Limit Exceeded	
nr = no recorded data	
suspect / estimated value	

1 Discharge Limits - Monthly Tests from Wetland/Rockfilter Outlet																			
Parameter	Unit	Consent value															Median	90 Percentile	Average
		90 Percentile	Maximum	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08				
pH between 6 - 9				7.35	7.23	7.09	7.17	7.19	7.24	7.23	7.16	7.65	7.05	7.14	7.25	7.19		7.23	
Ammonia NH4-N (median from 10)	g/cum	10	15	21.8	22.5	24.3	25.4	27	30	20	not sampled	21	26	25	33	25.2	30	25.09	
Nitrate NO3 (median from 10)	g/cum	5	8	0.033	0.002	0.043	0.04	0.002	0.002	0.002	0.02	0.002	0.42	0.01	0.007	0.007	0.04	0.05	
DRP	g/cum	5	10	5.08	4.96	4.96	5.16	6.2	7.8	8.5	9.8	10	10	7.7	7.6	7.7	9.98	7.31	
BOD (median from 10)	g/cum	20	50	17	19	18	13	18	12	9	21	25	21	16	14	17	21	16.9	
SS (median from 10)	g/cum	30	50	23	22	24	14	15	21	8.4	39	37	39	34	9.3	22	39	24	
FC (median from 5)	MPN/100ml	3000		240000	110000	26000	10000	64000	11000	17000	42000	2000000	62000	17000	9000	26000	227000	217333	

2 Characterisation Values - Monthly Tests from Wetland/Rock Filter Outlet																		
Parameter	Units														Median	90 Percentile	Average	
Total P	g/cum			6.72	6.08	5.94	6.43	7.3	8.2	8.6	9.9	11	10	8.6	8.4	8.5	10.0	8
TKN	g/cum			26	26	30	26	37	38	23	23	28	33	35	41	31.5	37.9	31
Temp	*C			10.4	13.5	13.8	15.5	18.5	22.4	23.1	21.8	19.5	21	15.6	13.4	19	22.34	17
E Coli	MPN/100ml			17000	140000	18000	not sampled	35000	11000	32000	35000	1900000	35000	11000	32000	32000	140000	206000

3 Characterisation Values - Weekly Sample from Oxidation Ponds																			
Parameter	Units														Median	90 Percentile	Average		
DO				see monthly records															

trending weekly DO is meaningless

4 Characterisation Values - Quarterly Tests from Oxidation Ponds Outlet																	
Parameter	Units	Sep 2007	Dec 2007	Mar 2008	Jun 2008												
BOD	g/cum	23	21	27	18												
SS	g/cum	51	42	25	25												
DRP	g/cum	4.94	7.3	11	7.2												
TP	g/cum	6.46	8.1	11	8.4												
Ammonia NH4-N	g/cum	24.6	26	29	33												
TKN	g/cum	31	39	36	42												
Nitrate NO3	g/cum	0.008	0.002	0.002	0.002												
pH	units	8.51	7.8	7.15	7.45												
Temp	*C	13.3	22.5	18.7	13.3												
FC	MPN/100ml	140000	4300	14000	26000												
EC	MPN/100ml	51000	4300	230000	26000												

5 Characterisation Values - Annual Tests from Wetland/Rock Filter Outlet																	
Continuous Feb - Mar 5 tests over 30days continuous period																	
Parameter	Units	12-Feb-08	21-Feb-08	27-Feb-08	4-Mar-08	19-Mar-08											
BOD	g/cum	21	25	21	25	27											
SS	g/cum	39	38	23	37	25											
DRP	g/cum	9.8	10	9.9	10	11											
TP	g/cum	9.9	10	10	11	11											
Ammonia NH4-N	g/cum		18	18	21	29											
TKN	g/cum	23	24	26	28	36											
Nitrate NO3	g/cum	0.02	0.0047	0.002	0.002	0.002											
pH	units	7.16			7.65	7.15											
Temp	*C	21.8			19.5	18.7											
FC	MPN/100ml	42000	72000	20000	2000000	14000											
EC	MPN/100ml	35000	72000	20000	1900000	230000											

42000

6 Characterisation Values - Daily Total Flows																	
Consent limit cum/day																	
	5000																
	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Average				
Minimum Daily Flow	1528	1635	1043	1218	800	746	618	575	749	538	1014	1178	970				
Average Daily Flow	2483	2509	1576	1855	1394	1187	757	913	941	1431	1540	1960	1546				
Maximum Daily Flow	3686	3451	2507	2522	2609	1865	930	1275	1495	2596	2936	2898	2398				
Total Monthly Volume	76971	77791	47268	57512	41834	36812	23458	26472	29176	42941	47744	58798	47231				