



CLARENCETOWN WASTEWATER TREATMENT WORKS - ANNUAL POLLUTION MONITORING SUMMARY

Environment Protection Licence No. 13250
 Date Obtained: 4 January 2017
 Date Published: 23 January 2017

QUALITY MONITORING

EPA Id. No. 1 Site Code 5CT0001		Site Description - Discharge to utilisation area												
Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Summary 1 January 2016 to 31 December 2016										
				Minimum	Maximum	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Minimum	3DGM Maximum	100%ile Limit	100%ile Actual	Within Limits	
Aluminium	milligrams per litre	Yearly	1	0.0360	0.0360	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BOD	milligrams per litre	Weekly	52	3	74	30	37*	N/A	N/A	N/A	N/A	N/A	N/A	Yes*
Cadmium	milligrams per litre	Yearly	1	<0.00020	<0.00020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloride	milligrams per litre	Monthly	12	38	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorophyll a	milligrams per litre	Weekly	52	0.0099	1.400	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium	milligrams per litre	Yearly	1	<0.0002	<0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conductivity	microsiemens per centimetre	Quarterly	4	384	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper	milligrams per litre	Yearly	1	0.0032	0.0032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Faecal Coliforms	colony forming units per 100 mL	Monthly	12	9	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iron	milligrams per litre	Yearly	1	0.098	0.098	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead	milligrams per litre	Yearly	1	<0.0002	<0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Magnesium	milligrams per litre	Yearly	1	4.1	4.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manganese	milligrams per litre	Yearly	1	0.0514	0.0514	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury	milligrams per litre	Yearly	1	<0.0001	<0.0001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate	milligrams per litre	Monthly	12	<0.05	2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (ammonia)	milligrams per litre	Monthly	12	<0.05	11.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oil and Grease	milligrams per litre	Monthly	12	<2	3	N/A	N/A	N/A	N/A	N/A	N/A	10	3	Yes
pH	pH	Weekly	52	6.86	10.2	6.5-8.5	9.6*	N/A	N/A	N/A	N/A	N/A	N/A	Yes*
Potassium	milligrams per litre	Monthly	12	10.6	15.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nitrogen	milligrams per litre	Monthly	12	1.9	15.2	30	11.6	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Total Phosphorous	milligrams per litre	Monthly	12	2.6	11.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids	milligrams per litre	Weekly	52	<1	103	40	70*	N/A	N/A	N/A	N/A	N/A	N/A	Yes*
Zinc	milligrams per litre	Yearly	1	0.002	0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Only samples that were taken when discharging to utilisation area have been included for compliance calculations. Concentration limits at Point 1 have been removed from the new licence issued on 21 December 2016. Prior to this date, the licensee was not taken to have exceeded a quality limit specified in this licence for pH, BOD or TSS if monitoring by the licensee demonstrated that the elevated level(s) had occurred as a result of algal growth in maturation or effluent storage pond. This demonstration would occur if the level of chlorophyll-a at Points 1 or 5 during any exceedance was 100 ug/L or more. Actual 90%ile values listed above for BOD, pH and TSS results included chlorophyll-a >100 ug/L results. With >100 ug/L results removed, the corresponding values for BOD, pH and TSS would be 29, 8.4 and 37, which are compliant 90%ile results.

EPA Id. No. 2 Site Code 5OV3100		Site Description - Overflow spillway												
Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting #	Annual Summary 1 January 2016 to 31 December 2016										
				Minimum	Maximum	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Minimum	3DGM Maximum	100%ile Limit	100%ile Actual	Within Limits	
Biochemical Oxygen Demand	milligrams per litre	Special Frequency 1	-	-	-	30	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorophyll a	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (ammonia)	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Special Frequency 1	-	-	-	30	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oil and Grease	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A	10	-	N/A
pH	pH	Special Frequency 1	-	-	-	6.5 - 8.5	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Phosphorous	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids	milligrams per litre	Special Frequency 1	-	-	-	40	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A

#No samples taken as no discharge occurred from this point during the Annual Return period

EPA Id. No. 5 Site Code		Site Description - Pumped discharge to Wallaroo Creek												
Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Summary 1 January 2016 to 31 December 2016										
				Minimum	Maximum	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Minimum	3DGM Maximum	100%ile Limit	100%ile Actual	Within Limits	
Biochemical Oxygen Demand	milligrams per litre	Special Frequency 1	1	11	11	30	11	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Chlorophyll a	milligrams per litre	Special Frequency 1	1	0.148	0.148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate	milligrams per litre	Special Frequency 1	1	0.10	0.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (ammonia)	milligrams per litre	Special Frequency 1	1	0.95	0.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Special Frequency 1	1	4.1	4.1	30	4.1	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Oil and Grease	milligrams per litre	Special Frequency 1	1	3	3	N/A	N/A	N/A	N/A	N/A	N/A	10	3	Yes
pH	pH	Special Frequency 1	1	9.2	9.2	6.5 - 8.5	9.2**	N/A	N/A	N/A	N/A	N/A	N/A	Yes**
Total Phosphorous	milligrams per litre	Special Frequency 1	1	2.6	2.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids	milligrams per litre	Special Frequency 1	1	48	48	40	48**	N/A	N/A	N/A	N/A	N/A	N/A	Yes**

**This result relates to a single discharge in January 2016, which had a corresponding chlorophyll-a result greater than 100 ug/L. Concentration limits at Point 1 have been removed from the new licence issued on 21 December 2016. Prior to this date, the licensee was not taken to have exceeded a quality limit specified in this licence for pH, BOD or TSS if monitoring by the licensee demonstrated that the elevated level(s) had occurred as a result of algal growth in maturation or effluent storage pond. This demonstration would occur if the level of chlorophyll-a at Points 1 or 5 during any exceedance was 100 ug/L or more.