



CLARENCE TOWN WASTEWATER TREATMENT WORKS - ANNUAL MONITORING SUMMARY

Environment Protection Licence No. 13250
 Date Obtained: 25 July 2013
 Date Published: 7 August 2013

Licensee Hunter Water Corporation
 36 Honeysuckle Drive
 NEWCASTLE WEST NSW 2302

QUALITY MONITORING

EPA Id. No. 1 Site Code 5TE8459		Site Description - Discharge to utilisation area															
Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Summary 7 July 2012 to 6 July 2013													
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of measurements	3DGM Minimum	3DGM Maximum	100%ile Limit	100%ile Actual	Within Limits	
Aluminium	milligrams per litre	Yearly	1	5	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BOD	milligrams per litre	Weekly	9	<2	3	N/A	N/A	30	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Cadmium	milligrams per litre	Yearly	1	<0.001	<0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloride	milligrams per litre	Monthly	2	50	54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorophyll a	milligrams per litre	Weekly	9	<0.001	0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium	milligrams per litre	Yearly	1	0.004	0.004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conductivity	microsiemens per centimetre	Quarterly	1	441	441	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper	milligrams per litre	Yearly	1	0.039	0.039	N/A	N/A	N/A	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	2	<9	250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iron	milligrams per litre	Yearly	1	3.10	3.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead	milligrams per litre	Yearly	1	<0.001	<0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Magnesium	milligrams per litre	Yearly	1	3.9	3.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manganese	milligrams per litre	Yearly	1	0.006	0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury	milligrams per litre	Yearly	1	<0.0005	<0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate	milligrams per litre	Monthly	2	0.33	0.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (ammonia)	milligrams per litre	Monthly	2	0.12	0.24	N/A	N/A	N/A	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	2	<5	<5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	<5	Yes
pH	pH	Weekly	9	7.80	8.22	N/A	N/A	6.5 - 8.5	7.83 - 8.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potassium	milligrams per litre	Monthly	2	2.5	4.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nitrogen	milligrams per litre	Monthly	2	1.15	2.62	N/A	N/A	30	2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Total Phosphorous	milligrams per litre	Monthly	2	0.86	0.87	N/A	N/A	N/A	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	9	<1	9	N/A	N/A	40	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Zinc	milligrams per litre	Yearly	1	0.043	0.043	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Discharge began on 7th May 2013. First monthly samples collected were in the first week of June.

EPA Id. No. 2 Site Code		Site Description - Overflow spillway															
Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Summary 7 July 2012 to 6 July 2013													
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of measurements	3DGM Minimum	3DGM Maximum	100%ile Limit	100%ile Actual	Within Limits	
Biochemical Oxygen Demand	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	30	N/A	N/A	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	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	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	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	N/A	N/A	N/A	10	N/A	N/A
pH	pH	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nitrogen	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A
Total Suspended Solids	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

No samples were collected or analysed during the year as no overflow from the spillway occurred during the year.

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 7 July 2012 to 6 July 2013													
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of measurements	3DGM Minimum	3DGM Maximum	100%ile Limit	100%ile Actual	Within Limits	
Biochemical Oxygen Demand	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	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	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	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	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	N/A	N/A	N/A	10	N/A	N/A
pH	pH	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nitrogen	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A
Total Suspended Solids	milligrams per litre	Special Frequency 1	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

^ No samples were collected or analysed during the year as there was no discharge to Wallaroo Creek during the year.