TANILBA BAY WASTEWATER TREATMENT WORKS - ANNUAL POLLUTION MONITORING SUMMARY

Environment Protection Licence No. 4435
Date Obtained: 4 October 2022
Date Published: 20 February 2023

Licensee Hunter Water Corporation
36 Honeysuckle Drive
NEWCASTLE WEST NSW 2302

QUALITY MONITORING

EPA Id. No. 1 Site Code 5SL2900 Site Description - Immediately downstream of the UV Disinfection System

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Weekly	52	<2	7	N/A	N/A	10	3	N/A	N/A	N/A	30	7	Yes
Conductivity	microsiemens per centimetre	Monthly	12	464	628	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + Nitrite (oxidised nitrogen)	milligrams per litre	Monthly	12	0.14	2.08	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	12	0.08	0.27	N/A	N/A	3	0.26	N/A	N/A	N/A	5	0.27	Yes
Nitrogen (total)	milligrams per litre	Monthly	12	1.5	3.7	15	5.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Oil and Grease	milligrams per litre	Fortnightly	26	<2	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Weekly	52	7.20	7.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.5 - 8.5	7.20 - 7.79	Yes
Phosphorus (total)	milligrams per litre	Monthly	12	0.51	3.32	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	12	<1	14	N/A	N/A	20	4	N/A	N/A	N/A	50	14	Yes

EPA Id. No. 3 Site Code 5OV2900 Site Description - Emergency Overflow from Infiltration Pond No. 4

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Each Overflow Event	1	3	3	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	Each Overflow Event	1	~180	~180	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	Each Overflow Event	1	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Each Overflow Event	1	6.80	6.80	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	Each Overflow Event	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 4 Site Code 54Z2901 Site Description - Groundwater Bore 51

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	6	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	4	276	350	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	Quarterly	4	<1	49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	0.12	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	Quarterly	4	0.34	1.22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	1.0	1.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	5.06	6.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	0.025	0.064	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	Quarterly	4	1	11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	2.73	3.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 5 Site Code 54Z2902 Site Description - Groundwater Bore 151

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	4	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	4	271	387	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	Quarterly	4	<1	~<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	<0.05	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	Quarterly	4	0.35	0.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.7	1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.38	6.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.035	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	Quarterly	4	2	23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	3.48	3.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 6 Site Code 54Z2903 Site Description - Groundwater Bore 251

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	5	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	4	242	286	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	Quarterly	4	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	<0.05	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	Quarterly	4	0.49	0.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.9	1.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.19	6.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.013	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	Quarterly	4	<1	11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	3.42	3.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 7 Site Code 54Z2904 Site Description - Groundwater Bore 52

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	3	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	4	261	367	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	Quarterly	4	<1	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	<0.05	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	Quarterly	4	<0.05	0.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.6	1.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.70	7.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.011	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	Quarterly	4	2	12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	2.21	2.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 8 Site Code 54Z2905 Site Description - Groundwater Bore 152

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	2	3	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	4	277	352	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	Quarterly	4	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	0.12	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	Quarterly	4	0.17	0.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.7	1.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.73	6.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.020	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	Quarterly	4	2	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	2.31	2.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 9 Site Code 54Z2906 Site Description - Groundwater Bore 252

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	3	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	4	275	368	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	Quarterly	4	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	<0.05	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	Quarterly	4	0.13	0.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.6	0.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.65	6.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.015	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	Quarterly	4	4	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	2.29	2.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 10 Site Code 54Z2907 Site Description - Groundwater Bore 53

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	5	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	4	312	604	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	Quarterly	4	<1	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	0.20	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	Quarterly	4	<0.05	0.35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.7	0.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.61	6.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	0.006	0.015	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	Quarterly	4	<1	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	2.82	3.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 11 Site Code 54Z2933 Site Description - Groundwater Bore 153

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	5	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	4	442	525	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	Quarterly	4	<1	~17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	<0.05	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	Quarterly	4	0.31	0.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.8	1.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.70	6.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.031	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	Quarterly	4	<1	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	2.79	3.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 12 Site Code 54Z2934 Site Description - Groundwater Bore 253

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	5	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	4	240	457	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	Quarterly	4	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	<0.05	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	Quarterly	4	<0.05	0.34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.4	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.25	6.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.039	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	Quarterly	4	<1	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	2.78	3.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 13 Site Code 54Z2935 Site Description - Groundwater Bore 54

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	8	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	4	333	404	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	Quarterly	4	<1	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	0.07	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	Quarterly	4	0.62	0.91	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	1.0	1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.48	6.66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.031	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	Quarterly	4	2	11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	3.84	4.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 14 Site Code 54Z2936 Site Description - Groundwater Bore 55

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	3	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	4	107	178	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	Quarterly	4	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	0.13	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	Quarterly	4	<0.05	0.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.4	0.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	5.87	6.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	<0.005	0.029	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	Quarterly	4	<1	14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	4.04	4.44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 15 Site Code 54Z2938 Site Description - Groundwater Bore 57

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	5	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	4	285	353	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	Quarterly	4	<1	~20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	0.65	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	Quarterly	4	<0.05	0.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.48	6.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	0.017	0.137	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	Quarterly	4	12	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	3.22	4.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 16 Site Code 54Z3017 Site Description - Control Bore SK5389

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the month for licence reporting*	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	5	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	4	148	160	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	Quarterly	4	<1	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	<0.05	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	Quarterly	4	0.15	0.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.3	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	5.4	5.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	0.010	0.064	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	Quarterly	4	<1	11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth	metres (Australian Height Datum)	Quarterly	4	4.82	5.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 17 Site Code 54Z3013 Site Description - Infiltration Pond 1

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	3*	<2	5	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	3*	451	537	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	Quarterly	3*	~25	2200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	3*	0.52	1.52	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	Quarterly	3*	0.06	0.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	3*	1.3	3.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	3*	7.38	7.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	3*	1.020	2.660	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	Quarterly	3*	7	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

** Note: Pond 1 was dry during a quarterly sample period*

EPA Id. No. 18 Site Code 54Z3014 Site Description - Infiltration Pond 2

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	4	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	4	435	597	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	Quarterly	4	~16	~140	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	0.17	2.03	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	Quarterly	4	<0.05	0.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	1.4	2.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	7.14	8.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	0.953	2.760	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	Quarterly	4	<1	17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 19 Site Code 54Z3015 Site Description - Infiltration Pond 3

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	17	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	4	402	597	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	Quarterly	4	~8	~100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	2.14	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	Quarterly	4	<0.05	0.35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.8	3.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	6.81	8.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	0.500	2.720	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	Quarterly	4	4	111	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EPA Id. No. 20 Site Code 54Z3016 Site Description - Infiltration Pond 4

Pollutant	Unit of Measurement	Sampling Frequency	No. of times measured during the year for licence reporting	Annual Report 1 October 2021 - 30 September 2022											
				Minimum	Maximum	50%ile Limit	50%ile Actual	90%ile Limit	90%ile Actual	3DGM Limit	3DGM Number of Measurements	3DGM Actual	100%ile Limit	100%ile Actual	Within Limits
Biochemical Oxygen Demand	milligrams per litre	Quarterly	4	<2	3	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	4	423	598	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	Quarterly	4	~80	~300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Quarterly	4	<0.05	2.09	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	Quarterly	4	0.07	0.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrogen (total)	milligrams per litre	Quarterly	4	0.8	2.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
pH	pH	Quarterly	4	7.18	7.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phosphorus (total)	milligrams per litre	Quarterly	4	0.651	2.730	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	Quarterly	4	3	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

VOLUME MONITORING

Monitoring Point	Annual Report 1 October 2021 - 30 September 2022							
	Unit of Measurement	Sampling Frequency	No. of times measured during the year	Minimum	Mean	Maximum	Volume Limit	Within Limits?
Point 2 - Effluent Flume Channel	kilolitres per day	Daily	365	947	2,112	6,411	10,000	Yes