

Regional Infrastructure Pty Ltd  
 Inverell Regional Livestock Exchange (IRLX)  
 Bannockburn Rd, Inverell NSW 2360  
 EPL 10802  
 Livestock Intensive Activities

Point 1 (Effluent)

Sampling Frequency		Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually
Date Sampled	Date Obtained	pH (pH units)	Sodium Adsorption Ratio	Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Ammonia (mg/L)	Nitrate as N (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Phosphorus (mg/L)	Biochemical Oxygen Demand (mg/L)
20-Sep-12	7-Dec-13	7.85	3.31	2970	808	65	36	134	280	122	<0.10	143	33.6	172
16-Jan-13	30-Mar-13	7.67	5.4	3150	1060	70	43	233	596	105	0.04	398	113	56
24-Apr-13 (re-sample)	3-May-13	7.91	3.04	2830	332	69.0	42	130	344	130	<0.01	140	36.5	61
8-Jul-13	6-Sep-13	7.91	3.02	2930	207	89	56	148	325	95.2	<0.10	145	37	78
29-Jan-14	21-Feb-14	7.99	3.69	4330	337	120	86	217	425	125	<0.10	160	42	80
16-Jul-14	3-Sep-14	8.01	3.24	3770	397	109	76	180	360	146	<0.05	204	36.3	173
28-Jan-15	25-Feb-15	7.82	4.12	3130	601	69	55	189	392	98.7	<0.1	169	32.2	76
14-Jul-15	7-Aug-15	7.78	3.12	3320	394	86	54	150	366	156	<0.1	195	40.2	183
7-Mar-16	14-Mar-16	8.02	3.78	3720	314	91	66	194	481	108	0.02	129	38.2	55
23-Jun-16	26-Sep-16	7.91	3.36	2830	188	67	42	143	336	96	<0.1	127	32.6	<2
2-Feb-17	17-Feb-17	8.04	3.8	2500	203	55	44	136	316	67	<0.1	99.3	31.4	80
2-Aug-17	19-Sep-18	7.97	2.48	2300	182	63	35	99	241	119	<0.01	133	29.2	97
31-Jan-18	9-Feb-18	8.09	3.55	-	434	84	74	185	401	75.8	0.04	124	31.1	50
1-Aug-18	30-Aug-18	7.97	3.5	3770	859	100	73	189	346	147	<0.1	198	45.8	238
27-Mar-19	13-May-19	8.00	4.00	4220	2070	101	78	220	513	128	<0.1	225	54.6	165
25-Sep-19	12-Nov-19	8.29	5.97	5252	494	140	103	382	759	196	<0.05	206	48.1	271

Point 2 (Spillway of Wet Weather Storage)

Sampling Frequency (each overflow event)

Date Sampled	Date Obtained	pH (pH units)	Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Ammonia (mg/L)	Nitrate as N (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Reactive Phosphorus (mgP/L)

Point 3 (Soils -average of topsoil and subsoil from two management units)

Sampling Frequency		Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	3 Yearly	3 Yearly	3 Yearly	3 Yearly
Date Sampled	Date Obtained	pH (pH units)	Sodium Adsorption Ratio	Electrical Conductivity (µS/cm)	Exchangeable Calcium (meq/100g)	Exchangeable Magnesium (meq/100g)	Exchangeable Sodium (meq/100g)	Exchangeable Potassium (meq/100g)	Cation Exchange Capacity (meq/100g)	Chloride (mg/kg)	Nitrate (mg/kg)	Available Phosphorus (mgP/L)	Organic Carbon (%)	Aggregate Stability (Emerson)	Bulk Density (kg/m³)	Saturated Hydraulic Conductivity (mm/wk)	Total Nitrogen (mg/kg)	
20-Sep-12		7.75	3.53	123	51.9	23.4	0.9	1.1	77.3	<100	<5.8	3.5	1.49	4.5	1553	2953	1068	
8-Jul-13		7.05	3.23	96	44.3	24.6	1.0	1.8	71.7	60	11.7	5.7	1.88					
16-Jul-14	3-Sep-14	6.7	2.53	203	53.9	25.5	1.3	3.1	83.7	175	56.2	6.9	1.63					
14-Jul-15	7-Aug-15	8.025	4.00	157.5	48.8	24.8	1.6	1.4	76.5	98	23.3	6.0	1.25	4	1515	<84	1272.5	
23-Jun-16	26-Sep-16	7.9	4.32	130.0	50.2	18.7	1.4	2.5	72.8	65	28.4	20.3	1.43					
2-Aug-17	19-Sep-18	7.975	4.21	160.3	41.1	17.6	1.6	2.3	62.6	38	6.9	11.9	1.21					
1-Aug-18	30-Aug-18	7.525	0.28	235.0	45.5	23.0	1.7	4.2	74.3	107	49.5	109.5	1.55	2.8	1000	155358	2275	
25-Sep-19	12-Nov-19	7.85	7.59	202.3	18.4	8.6	0.8	1.8	29.2	145	59.5	7.0	1.63					

Point 4 (Tailwater Pond)

Sampling Frequency (each overflow event)

Date Sampled	Date Obtained	pH (pH units)	Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Ammonia (mg/L)	Nitrate as N (mg/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Reactive Phosphorus (mgP/L)
21-Mar-17	28-Mar-17	7.52	655	480	0.27	7.96	17.7	5.04	-
30-Mar-17	26-Apr-17	7.34	442	602	0.11	23.2	31.4	5.55	-

Point 5 (Groundwater- BH1)

Sampling Frequency		Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually	Biannually
Date Sampled	Date Obtained	pH (pH units)	Electrical Conductivity (µS/cm)	Total Dissolved Solids (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Reactive Phosphorus (mgP/L)	Standing Water Level (measured)
20-Sep-12	7-Dec-13	7.98	1390	892	0.5	0.07	0.90	0.05	0.07	16.34
16-Jan-13	30-Mar-13	7.76	1350	866	0.67	0.07	1.00	0.18	0.16	16.11
8-Jul-13	6-Sep-13	7.84	1330	819	0.64	0.05	0.80	0.13	0.15	16.08
29-Jan-14	21-Feb-14	7.89	1400	849	0.62	0.01	0.60	0.22	0.09	16.01
16-Jul-14	3-Sep-14	7.75	1340	842	0.58	<0.01	0.60	0.04	0.04	16.25
28-Jan-15	25-Feb-15	7.89	1360	854	0.63	0.03	1.10	0.22	0.12	16.54
14-Jul-15	7-Aug-15	7.89	1340	807	0.68	0.02	0.90	0.12	0.04	16.99
28-Jan-16	14-Mar-16	8.02	1340	749	0.45	0.14	1.20	0.23	0.17	16.82
22-Jun-16	26-Sep-16	7.8	1350	758	0.54	0.03	0.60	0.08	0.05	16.40
2-Feb-17	17-Feb-17	7.88	1350	883	0.64	<0.01	0.60	0.08	0.07	16.59

2-Aug-17	19-Sep-18	7.93	1300	754	0.62	< 0.01	0.70	< 0.01	0.02	15.40
31-Jan-18	9-Feb-18	7.93	1320	942	0.67	0.03	0.70	0.02	< 0.01	14.90
1-Aug-18	30-Aug-18	7.87	1360	764	0.65	0.04	0.60	0.03	0.03	16.00
27-Mar-19	13-May-19	8.14	1260	892	0.76	0.02	0.80	0.09	0.02	15.20
25-Sep-19	12-Nov-19	7.67	1500	824	0.65	< 0.01	0.60	0.03	0.02	15.60

Point 7 (Creek Upstream)

Sampling Frequency (after every overflow from Point 2 or 4)

Date Sampled	Date Obtained	pH (pH units)	Sodium Adsorption Ratio	Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Ammonia (mgN/L)	Nitrate as N (mgN/L)	Total Kjeldahl Nitrogen (mg/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Reactive Phosphorus (mgP/L)
21-Mar-17	28-Mar-17	7.79	0.85	273	6	21	12	15	8	0.22	< 0.01	1.5	1.5	0.51	-
30-Mar-17	26-Apr-17	7.65	0.61	146	109	8	5	9	4	0.07	0.22	1.8	2	0.74	-

Point 8 (Creek Downstream)

Sampling Frequency (after every overflow from Point 2 or 4)

Date Sampled	Date Obtained	pH (pH units)	Sodium Adsorption Ratio	Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Ammonia (mgN/L)	Nitrate as N (mgN/L)	Total Kjeldahl Nitrogen (mg/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)
21-Mar-17	28-Mar-17	8.29	1.85	544	132	21	11	42	71	0.29	0.9	7.3	9.0	3.13
30-Mar-17	26-Apr-17	7.47	0.6	179	60	9	5	9	13	0.09	0.39	2.4	2.8	1.29

Point 13 (Groundwater- average of BH2 and BH2A)

Sampling Frequency

Date Sampled	Date Obtained	pH (pH units)	Electrical Conductivity (µS/cm)	Total Dissolved Solids (mg/L)	Ammonia (mgN/L)	Nitrate (mgN/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Reactive Phosphorus (mgP/L)	Standing Water Level (measured)
20-Sep-12	7-Dec-13	8.39	985	748	0.09	0.07	0.35	0.86	0.34	4.37
16-Jan-13	30-Mar-13	8.34	922	558	0.05	0.14	0.55	0.64	0.62	5.82
8-Jul-13	6-Sep-13	8.47	911	1018	0.18	0.05	0.55	1.71	0.48	5.22
29-Jan-14	21-Feb-14	8.38	954	581	0.08	0.08	0.35	0.66	0.49	5.36
16-Jul-14	3-Sep-14	8.35	967	821	0.12	<0.01	<0.6	4.74	0.47	6.13
28-Jan-15	25-Feb-15	8.34	970	592	2.0	0.02	5.90	0.90	0.7	6.04
14-Jul-15	7-Aug-15	8.43	973.5	1164	0.295	0.025	1.10	4.755	0.455	6.02
26-Jan-16	14-Mar-16	8.075	626	474	1.705	0.05	2.65	1.02	0.895	5.55
22-Jun-16	26-Sep-16	8.245	926.5	579	0.495	0.05	1.15	1.31	0.67	5.82
2-Feb-17	17-Feb-17	8.405	881.5	630.5	0.27	< 0.01	0.70	1.895	0.36	5.30
2-Aug-17	19-Sep-18	8.43	883.5	565.5	0.135	0.02	0.35	0.23	0.1	4.16
31-Jan-18	9-Feb-18	8.435	948	670.5	0.155	0.02	0.50	0.465	0.155	3.21
1-Aug-18	30-Aug-18	8.48	945.5	592	0.395	< 0.01	0.40	0.39	0.14	4.71
27-Mar-19	13-May-19	8.62	893	648	0.18	0.03	0.40	0.41	0.14	6.06
25-Sep-19	12-Nov-19	8.61	1043.5	567.5	0.29	0.09	0.45	0.505	0.21	5.76

Point 15 (Groundwater- BH3)

Sampling Frequency

Date Sampled	Date Obtained	pH (pH units)	Electrical Conductivity (µS/cm)	Total Dissolved Solids (mg/L)	Ammonia (mgN/L)	Nitrate (mgN/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Reactive Phosphorus (mgP/L)	Standing Water Level (measured)
20-Sep-12	7-Dec-13	8.28	439	288	0.03	0.04	0.30	0.30	0.07	5.13
16-Jan-13	30-Mar-13	8.07	434	276	0.05	0.21	1.00	0.50	0.10	5.65
8-Jul-13	6-Sep-13	8.18	427	301	0.03	0.04	0.40	0.26	0.11	6.45
29-Jan-14	21-Feb-14	8.06	456	275	0.11	0.17	0.80	0.26	0.1	7.09
16-Jul-14	3-Sep-14	8.12	452	270	0.05	0.06	0.20	0.23	0.13	7.40
28-Jan-15	25-Feb-15	8.11	436	255	0.18	0.24	1.10	0.21	0.15	7.71
14-Jul-15	7-Aug-15	7.91	430	233	0.11	0.06	0.40	0.17	0.15	7.61
26-Jan-16	14-Mar-16	8.15	431	233	0.16	0.01	0.40	0.11	0.09	6.95
22-Jun-16	26-Sep-16	8.05	413	260	0.04	0.05	0.20	0.16	0.13	7.42
2-Feb-17	17-Feb-17	8.13	397	302	0.08	< 0.01	0.30	0.09	0.07	6.23
2-Aug-17	19-Sep-18	8.23	390	216	0.02	< 0.01	< 0.1	0.02	0.03	2.78
31-Jan-18	9-Feb-18	8.2	396	292	0.02	0.09	< 0.1	0.09	0.08	4.10
1-Aug-18	30-Aug-18	8.09	437	221	0.09	< 0.01	< 0.1	0.13	0.13	5.85
27-Mar-19	13-May-19	8.06	396	271	0.1	0.02	0.20	0.15	0.13	6.49
25-Sep-19	12-Nov-19	7.6	446	238	0.01	0.02	< 0.1	0.14	0.16	8.29

Point 16 (Groundwater- BH4)

Sampling Frequency

Date Sampled	Date Obtained	pH (pH units)	Electrical Conductivity (µS/cm)	Total Dissolved Solids (mg/L)	Ammonia (mgN/L)	Nitrate (mgN/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Reactive Phosphorus (mgP/L)	Standing Water Level (measured)
20-Sep-12	7-Dec-13	7.71	2100	1360	1.68	0.27	7.40	1.3	0.13	8.11
16-Jan-13	30-Mar-13	7.17	2290	1430	2.68	0.12	14.40	4.26	0.56	8.88
8-Jul-13	6-Sep-13	7.04	2450	2120	7.76	0.03	38.50	9.34	0.48	8.62
29-Jan-14	21-Feb-14	7.43	2400	1440	4.88	0.04	11.80	4.02	0.26	9.56
16-Jul-14	3-Sep-14	7.08	2470	1430	3.42	0.01	12.10	4.12	0.08	9.89
28-Jan-15	25-Feb-15	7.76	2200	1270	6.41	0.03	7.70	3.92	0.12	10.25

