EPA Licence Effluent Quality Data

Licensee Name	Bega Valley Shire Council
Licensee Address	No. 4 Zingel Place, Bega
Site Name	Merimbula Sewage Treatment Plant
Site Location	Princes Highway, Merimbula
EPA Licence Number (EPL)	1741
Link to Licence at EPA Website	http://www.epa.nsw.gov.au/prpoeoapp/ (select Licences option, enter Licence Number, select Search)
Sample Point	Sampling point within maturation pond labelled as "Point 4" on map titled "Proposed Effluent Pond for Pambula Golf Club" received by the EPA on 25/2/02
Required Sampling Frequency & Type	Monthly Grab Sample

			pH	Susp.Solids	BOD	Tot Oil& Grease	Faecal Coliform	Ammonia (as N)	Total Nitrogen	Total Phosphorus
		Units	pH Units	mg/L	mg/L	mg/L	cfu/100mL	mg/L	mg/L	mg/L
		EPL 100%ile Limit	6.5-8.5	30	15	10	200	5	15	
		EPL 90%ile Limit		20	10	2		2	10	13
Date Sampled	Date Obtained	Date Published								
4-Apr-12	18-Apr-12	19-Jul-12	8.27	4	5	<1	2			
2-May-12	8-May-12	19-Jul-12	7.8	4	<2	<1	74			
6-Jun-12	14-Jun-12	19-Jul-12	7.56	6	2	<1	190			
4-Jul-12	12-Jul-12	19-Jul-12	7.98	5	3	<1	10			
1-Aug-12	10-Aug-12	16-Aug-12	7.7	4	<2	<1	18			
5-Sep-12	11-Sep-12	12-Sep-12	7.59	3	<2	<1	12			
3-Oct-12	15-Oct-12	16-Oct-12	7.54	7	3	<1	<2			
7-Nov-12	14-Nov-12	16-Nov-12	7.75	10	5	<1	1300			
5-Dec-12	12-Dec-12	14-Dec-12	8.06	12	5	<1	700			
2-Jan-13	9-Jan-13	14-Jan-13	7.96	8	4	<2	380			
6-Feb-13	12-Feb-13	15-Feb-13	9.1	36	15	<1	180			
6-Mar-13	14-Mar-13	18-Mar-13	8.12	13	7	13	530			
3-Apr-13	10-Apr-13	12-Apr-13	7.97	14	6	<1	20			
1-May-13	7-May-13	10-May-13	7.58	7	<2	<1	1			
6-Jun-13	13-Jun-13	19-Jun-13	7.98	<2	<2	<1	1			
3-Jul-13	11-Jul-13	15-Jul-13	7.67	4	<2	<1	<1			
7-Aug-13	13-Aug-13	16-Aug-13	7.83	2	<2	<1	<2			
4-Sep-13	12-Sep-13	16-Sep-13	8.04	3	<2	<1	<2			
2-Oct-13	11-Oct-13	15-Oct-13	8.01	3	2	<1	<2			
6-Nov-13	12-Nov-13	19-Nov-13	7.60	4	<2	<1	86			
5-Dec-13	12-Dec-13	16-Dec-13	-	8	3	<1	104			
2-Jan-14	10-Jan-14	5-Feb-14	7.80	3	<2	<1	6	0.6	3.16	10.7
5-Feb-14	17-Feb-14	20-Feb-14	7.69	3	<2	<1	48	0.2	1.43	11.1
5-Mar-14	17-Mar-14	24-Mar-14	8.09	<2	<2	<1	74	0.1	2.22	9.84
2-Apr-14	14-Apr-14	29-Apr-14	7.50	3	2	<1	220	0.8	3.78	8.11
7-May-14	15-May-14	21-May-14	8.02	2	2	<1	120	0.2	3.61	6.59
4-Jun-14	14-Jun-14	26-Jun-14	7.65	3	<2	<1	1360	0.3	3.69	7.19
2-Jul-14	10-Jul-14	18-Jul-14	7.52	2	<2	<1	<2	0.4	11.4	9.88
6-Aug-14	15-Aug-14	22-Aug-14	7.84	3	<2	<1	3	0.3	3.37	8.22
3-Sep-14	10-Sep-14	19-Sep-14	7.87	2	<2	<1	<2	0.3	2.52	6.26
1-Oct-14	10-Oct-14	17-Oct-14	8.26	13	7	<1	<1	2.0	4.85	7.88
5-Nov-14	13-Nov-14	17-Nov-14	8.52	21	6	<1	6	1.1	4.25	12.5
3-Dec-14	11-Dec-14	16-Dec-14	7.66	3	3	<1	60	1.2	3.36	9.78
7-Jan-15	16-Jan-15	20-Feb-15	7.40	5	<2	<1	15000	1.4	6.39	7.55
4-Feb-15	12-Feb-15	20-Feb-15	7.22	3	<2	<1	4	0.2	6.55	5.33
4-Mar-15	17-Mar-15	19-Mar-15	7.77	5	<2	<1	<2	0.2	2.08	7.07
1-Apr-15	14-Apr-15	15-Apr-15	7.96	<2	<2	<1	<2	0.2	2.87	5.88
6-May-15	15-May-15	20-May-15	7.61	<2	<2	<1	76	0.1	4.74	3.84
3-Jun-15	12-Jun-15	16-Jun-15	7.57	<2	<2	<1	<1	0.2	7.92	5.29
1-Jul-15	10-Jul-15	28-Jul-15	8.09	3	<2	<1	<2	0.4	5.22	5.90
5-Aug-15	17-Aug-15	15-Sep-15	7.75	2	<2	<1	<2	0.4	5.35	7.93
2-Sep-15	11-Sep-15	15-Sep-15	7.72	3	29	<1	<2	0.4	2.99	4.40
7-Oct-15	19-Oct-15	20-Oct-15	8.31	22	8	<1	6	1.0	4.25	7.90
4-Nov-15	14-Nov-15	20-Nov-15	7.22	4	<2	<1	14	0.9	3.23	9.16
2-Dec-15	10-Dec-15	11-Dec-15	7.13	3	<2	<1	2	2.0	5.74	8.66
6-Jan-16	15-Jan-16	16-Feb-16	7.50	3	31	<1	4	2.5	7.32	9.02
3-Feb-16	16-Feb-16	19-Feb-16	7.41	11	6	<1	156	2.3	6.09	9.01
2-Mar-16	16-Mar-16	18-Mar-16	8.00	7	4	<1	130	0.3	7.05	11.4
6-Apr-16	21-Apr-16	22-Apr-16	7.66	4	<2	<1	168	0.4	4.08	9.71
4-May-16	16-May-16	23-May-16	7.61	4	3	<1	<2	0.3	5.46	9.29
1-Jun-16	14-Jun-16	24-Jun-16	7.63	<2	3	<1	2	<0.1	7.11	8.84
6-Jul-16	20-Jul-16	26-Jul-16	7.49	<2	<2	<1	<1	0.1	4.59	6.26
3-Aug-16	11-Aug-16	15-Aug-16	7.55	4	<2	<1	<1	<0.1	5.05	6.61
7-Sep-16	16-Sep-16	19-Sep-16	7.67	4	2	<1	<1	<0.1	3.96	8.32
5-Oct-16	17-Oct-16	27-Oct-16	7.63	3	<2	<1	<1	0.2	2.58	4.80
2-Nov-16	15-Nov-16	15-Nov-16	7.55	2	<2	<1	6	0.1	1.97	9.79
7-Dec-16	15-Dec-16	21-Dec-16	7.29	8	<2	<1	28	0.2	1.28	9.34
4-Jan-17	12-Jan-17	3-Feb-17	7.49	4	<2	<1	2	7.4	9.46	6.00
1-Feb-17	9-Feb-17	13-Feb-17	6.79	7	3	<1	82	0.3	8.99	14.8
1-Mar-17	10-Mar-17	13-Mar-17	8.61	20	7	<1	140	<0.1	2.92	8.53
5-Apr-17	13-Apr-17	20-Apr-17	7.74	4	2	<1	<2	0.2	5.95	8.72
3-May-17	11-May-17	15-May-17	7.55	<2	<2	<1	22	0.1	10.1	8.32
7-Jun-17	14-Jun-17	16-Jun-17	7.60	4	<2	<1	<1	0.1	7.60	7.82
5-Jul-17	12-Jul-17	13-Jul-17	7.75	<2	<2	<1	<1	<0.1	4.84	7.54
2-Aug-17	11-Aug-17	15-Aug-17	7.59	<2	<2	<1	<1	0.2	3.02	8.17
6-Sep-17	14-Sep-17	27-Sep-17	8.42	2	<2	<1	<1	<0.1	3.11	9.22
4-Oct-17	13-Oct-17	23-Oct-17	7.9	4	<2	<1	<1	0.8	2.86	6.98
1-Nov-17	9-Nov-17	13-Nov-17	7.6	4	<2	<1	<1	0.5	5.26	11.8
6-Dec-17	17-Dec-17	21-Dec-17	7.4	4	<2	<1	<2	1.0	3.45	6.22
3-Jan-18	15-Jan-18	5-Feb-18	7.4	4	<2	<1	<2	2.2	5.00	10.5
5-Feb-18	15-Feb-18	16-Mar-18	8.6	9	3	<1	88	0.2	6.88	9.16
7-Mar-18	19-Mar-18	23-Mar-18	8.7	10	4	<1	560	<0.1	3.08	11.2
04-Apr-18	16-Apr-18	20-Apr-18	8.0	7	4	<1	188	0.9	7.84	13.0
02-May-18	14-May-18	16-May-18	7.9	3	<2	<1	2	0.2	2.73	10.7
06-Jun-18	15-Jun-16	18-Jun-18	8.2	3	2	<1	<1	<0.1	1.70	7.93
04-Jul-18	16-Jul-18	19-Jul-18	7.5	3	<2	<1	<1	<0.1	2.30	6.97
01-Aug-18	14-Aug-18	16-Aug-18	7.7	3	<2	<1	<1	<0.1	2.28	7.65
05-Sep-18	19-Sep-18	19-Sep-18	7.8	4	<2	<1	8	0.4	2.52	9.03
03-Oct-18	16-Oct-18	18-Oct-18	8.0	5	2	<1	114	0.2	3.17	9.02
07-Nov-18	26-Nov-18	27-Nov-18	7.4	5	<2	<1	18	0.4	3.85	10.7
05-Dec-18	18-Dec-18	19-Dec-18	8.1	10	5	<1	63	0.2	2.37	8.74
02-Jan-19	16-Jan-19	30-Jan-19	7.9	7	3	<1	166	2.7	4.70	4.39
06-Feb-19	19-Feb-19	25-Feb-19	7.9	10	3	<1	4	0.4	5.42	10.1
06-Mar-19	23-Mar-19	25-Mar-19	8.5	11	3	<1	10	<0.1	1.96	9.31
03-Apr-19	02-May-19	06-May-19	7.7	4	<2	<1	<2	0.4	7.63	7.86
01-May-19	20-May-19	22-May-19	8.1	3	2	<1	2	0.1	6.89	9.15
05-Jun-19	21-Jun-19	24-Jun-19	7.8	<2	<2	<1	<1	<0.1	10.8	9.64
03-Jul-19	16-Jul-19	17-Jul-19	7.7	<2	<2	<1	<1	<0.1	3.49	6.64
07-Aug-19	20-Aug-19	21-Aug-19	7.9	3	<2	<1	<1	<0.1	4.08	6.39
04-Sep-19	13-Sep-19	17-Sep-19	8.42	4	2	<1	26	<0.1	2.31	5.32
02-Oct-19	15-Oct-19	22-Oct-19	8.5	10	3	<1	39	0.1	2.53	3.65
06-Nov-19	19-Nov-19	21-Nov-19	7.1	11	2	<1	245	1.1	3.43	8.19
04-Dec-19	20-Dec-19	20-Dec-19	7.6	29	4	<1	170	1.1	3.30	8.60
15-Jan-20	07-Feb-20	19-Feb-20	9.0	11	2	<1	128	0.3	4.89	6.89
05-Feb-20	20-Feb-20	24-Feb-20	8.2	11	5	<1	44	0.5	6.74	12.8
04-Mar-20	24-Mar-20	09-Apr-20	9.0	<2	5	<1	178	0.6	2.40	6.81
01-Apr-20	16-Apr-20	24-Apr-20	8.88	16	4	<1	40	<0.1	5.04	6.94
07-May-20	18-May-20	20-May-20	8.6	3	<2	<1	26	<0.1	3.61	6.40
04-Jun-20	18-Jun-20	19-Jun-20	8.5	2	<2	<1	<2	0.2	3.34	7.22
02-Jul-20	08-Jul-20	22-Jul-20	7.8	2	<2	<1	<1	<0.1	7.85	6.77
06-Aug-20	18-Aug-20	24-Aug-20	7.7	7	2	<1	<1	0.2	4.46	3.28
03-Sep-20	14-Sep-20	14-Sep-20	7.7	2	<2	<1	<1	0.2	3.01	5.92
08-Oct-20	19-Oct-20	20-Oct-20	7.6	12	5	<1	2	13.3	15	8.51
05-Nov-20	13-Nov-20	18-Nov-20	8.5	14	3	<1	24	0.2	3.25	5.48
03-Dec-20	11-Dec-20	17-Dec-20	9.2	14	6	<1	166	0.1	2.24	6.3
07-Jan-21	19-Jan-21	29-Jan-21	7.9	8	13	<1	96	0.2	4.65	7.55
04-Feb-21	16-Feb-21	22-Feb-21	8.7	8	20	<1	35	0.1	3.43	6.61
04-Mar-21	17-Mar-21	29-Mar-21	8.36	14	8	<1	232	0.2	3.66	5.78
08-Apr-21	17-Mar-21	13-May-21	7.5	5	<2	<1	<2	1.1	5.2	6.56
06-May-21	17-May-21	18-May-21	7.3	17	<2	<1	1740	0.8	4.83	7.62
03-Jun-21	15-Jun-21	18-Dec-24	7.7	5	<2	<1	<2	<0.1	5.55	5.65
08-Jul-21	20-Jul-21	19-Aug-21	7.5	7	<2	<1	<1	0.7	7.06	10.2
05-Aug-21	17-Aug-21	19-Aug-21	7.76	4	27	<1	<1	0.6	5.75	2.87
02-Sep-21	14-Sep-21	17-Sep-21	7.48	11	37	<1	19	0.9	8.42	4.82
07-Oct-21	19-Oct-21	19-Nov-21	7.71	13	5	<1	28	2.3	6.07	8.31
04-Nov-21	15-Nov-21	19-Nov-21	7.98	12	4	<1	140	0.5	3.49	3.2
02-Dec-21	14-Dec-21	21-Dec-21	7.98	24	27	<1	47	<0.1	2.18	2.9
06-Jan-22	18-Jan-22	16-Feb-22	7.59	10	12	<1	850	4.2	6.44	8.39
03-Feb-22	13-Feb-22	16-Feb-22	8.12	21	15	<1	150	<0.1	3.03	11.6
03-Mar-22	16-Mar-22	17-Mar-22	7.8	4	10	<1	230	0.8	2.99	2.19
07-Apr-22	29-Apr-22	10-May-22	7.76	18	2	<1	184	1.5	5.98	5.59
05-May-22	17-May-22	18-Dec-24	7.49	4	<2	<1	4	0.5	5.43	7.41
02-Jun-22	17-Jun-22	27-Jul-22	7.77	6	181	<1	1	0.4	4.8	6.93
07-Jul-22	18-Jul-22	27-Jul-22	7.46	3	3	<1	<1	0.4	3.29	5.11
04-Aug-22	16-Aug-22	24-Oct-22	7.76	3	6	<1	<1	0.4	3.37	6.32
08-Sep-22	19-Sep-22	24-Oct-22	7.95	4	4	<1	<1	0.3	2.2	6.95
06-Oct-22	17-Oct-22	24-Oct-22	7.68	6	<2	<1	<1	0.4	5.8	8.81
03-Nov-22	15-Nov-22	18-Dec-24	7.67	4	2	<1	29	0.5	2.44	4.34
08-Dec-22	20-Dec-22	18-Dec-24	8.11	8	<2	<1	12	<0.1	1.9	6.56
05-Jan-23	18-Jan-23	24-Jan-23	8.06	12	6	<1	206	1.1	3.76	8.4
02-Feb-23	14-Feb-23	22-Feb-23	7.14	18	7	<1	144	0.4	4.95	12.3
02-Mar-23	21-Mar-23	24-Mar-23	8.05	11	6	<1	192	0.3	2.71	8.4
05-Apr-23	20-Apr-23	21-Apr-23	8.29	21	3	<1	38	<0.1	2.69	7.67
04-May-23	16-May-23	24-May-23	7.95	4	<2	<1	4	0.4	3.17	5.71
08-Jun-23	21-Jun-23	13-Jul-23	7.66	4	<2	<1	<2	0.6	2.95	7.25
06-Jul-23	28-Jul-23	12-Sep-23	7.38	19	2	<1	500	2.7	10.9	9.07
03-Aug-23	15-Aug-23	12-Sep-23	7.74	3	<2	<1	<2	0.3	7.18	7.22
05-Sep-23	15-Sep-23	19-Oct-23	8.16	10	7	<1	18	0.1	4.07	10.2
05-Oct-23	26-Oct-23	27-Oct-23	7.91	23	3	<1	<2	14.4	15.9	7.39
02-Nov-23	22-Nov-23	06-Dec-23	7.81	6	3	<1	57	0.8	3.26	4.14
07-Dec-23	20-Dec-23	25-Jan-24	7.85	9	3	<1	236	<0.1	2.53	5.17
04-Jan-24	18-Jan-23	25-Jan-24	7.88	5	2	<1	1	1.2	4.06	5.37
08-Feb-24	20-Feb-24	22-Feb-24	7.88	10	2	<1	200	<0.1	8.56	11
07-Mar-24	20-Mar-24	18-Apr-24	8.36	9	4	<1	22	<0.1	3.53	10.3
05-Apr-24	17-Apr-24	18-Apr-24	7.9	6	5	<1	38	1.2	6.5	9.7
02-May-24	10-May-24	18-Dec-24	7.45	2	2	<1	<1	0.4	11.5	8.35
06-Jun-24	17-Jun-24	18-Dec-24	7.5	3	<2	<1	178	0.7	4.65	7.45
04-Jul-24	15-Jul-24	18-Dec-24	6.9	5	<2	<1	<2	0.9	9.9	10.3
08-Aug-24	20-Aug-24	18-Dec-24	7.4	4	<2	<1	<1	0.5	5.52	9.18
05-Sep-24	13-Sep-24	18-Dec-24	8.1	6	<2	<1	17	0.2	2.79	7.64
03-Oct-24	21-Oct-24	24-Oct-24	9.1	20	4	<1	82	0.3	3.08	6.68
11-Nov-24	21-Nov-24	28-Nov-24	7.6	7	2	<1	9	0.6	2.74	5.33
05-Dec-24	16-Dec-24	18-Dec-24	7.4	6	3	<1	40	0.9	3.31	6.05

EPA Licence Effluent Quality Data

[illegible]

Date Sampled	Date Obtained	Date Published	pH	Susp Solids	BOD	Tot Oil & Grease	Faecal Coliform	Ammonia (as N)	Total Nitrogen	Total Phosphorus
[illegible]										
07-Nov-18	23-Nov-18	27-Nov-18	8.1	46	<2	<1	6	0.1	0.19	0.03
15-Nov-18	29-Nov-18	30-Nov-18	8.2	9	<2	<1	<1	<0.1	0.14	0.02
21-Nov-18	29-Nov-18	03-Dec-18	8.2	16	<2	<1	3	<0.1	0.19	0.01
29-Nov-18	17-Dec-18	19-Dec-18	8.2	32	<2	<1	<1	<0.1	0.16	0.01
05-Dec-18	18-Dec-18	19-Dec-18	8.1	31	<2	<1	<1	0.1	0.25	<0.01
13-Dec-18	01-Jan-19	02-Jan-19	8.1	12	<2	<1	<1	<0.1	0.26	0.01
19-Dec-18	07-Jan-19	07-Jan-19	8.1	8	<2	<1	<1	<0.1	0.16	<0.01
27-Dec-18	18-Jan-19	30-Jan-19	8.1	13	<2	<1	<1	0.2	0.19	<0.01
02-Jan-19	23-Jan-19	30-Jan-19	8.1	12	<2	<1	<1	0.2	0.52	<0.01
10-Jan-19	25-Jan-19	30-Jan-19	8.1	16	<2	<1	<1	0.3	0.35	0.02
16-Jan-19	30-Jan-19	31-Jan-19	8.1	25	<2	<1	<1	0.1	0.18	0.01
24-Jan-19	20-Feb-19	25-Feb-19	8.1	11	<2	<1	2	<0.2	0.17	<0.01
30-Jan-19	15-Feb-19	18-Feb-19	8.1	34	<2	<1	<1	<0.2	0.19	<0.01
06-Feb-19	19-Feb-19	25-Feb-19	8.2	9	<2	<1	1	<0.2	0.22	0.01
14-Feb-19	27-Feb-19	04-Mar-19	8.1	12	<2	<1	<1	<0.1	0.26	0.02
20-Feb-19	08-Mar-19	11-Mar-19	8.1	16	5	<1	<1	<0.5	1.11	0.07
28-Feb-19	15-Mar-19	18-Mar-19	8.2	12	<2	<1	<1	<0.1	0.27	<0.01
06-Mar-19	23-Mar-19	25-Mar-19	8.2	8	<2	<1	<1	<0.1	0.18	<0.01
14-Mar-19	29-Mar-19	04-Apr-19	8.2	14	<2	<1	<1	0.4	0.28	<0.01
20-Mar-19	26-Mar-19	26-Mar-19	-	-	-	-	<1	-	-	-
28-Mar-19	01-Apr-19	04-Apr-19	-	-	-	-	<1	-	-	-
06-Nov-19	13-Nov-19	21-Nov-19	-	-	-	-	<1	-	-	-
13-Nov-19	19-Nov-19	21-Nov-19	-	-	-	-	<1	-	-	-
20-Nov-19	25-Nov-19	27-Nov-19	-	-	-	-	<1	-	-	-
27-Nov-19	04-Dec-19	12-Dec-19	-	-	-	-	<1	-	-	-
04-Dec-19	09-Dec-19	12-Dec-19	-	-	-	-	<1	-	-	-
11-Dec-19	13-Dec-19	20-Dec-19	-	-	-	-	<1	-	-	-
[illegible]										
05-Feb-20	10-Feb-20	19-Feb-20	-	-	-	-	<2	-	-	-
12-Feb-20	18-Feb-20	19-Feb-20	-	-	-	-	1	-	-	-
19-Feb-20	25-Feb-20	05-Mar-20	-	-	-	-	<1	-	-	-
[illegible]										
04-Mar-20	16-Mar-20	20-Mar-20	-	-	-	-	<1	-	-	-
11-Mar-20	18-Mar-20	20-Mar-20	-	-	-	-	<1	-	-	-
18-Mar-20	23-Mar-20	02-Apr-20	-	-	-	-	<1	-	-	-
25-Mar-20	30-Mar-20	02-Apr-20	-	-	-	-	<1	-	-	-
05-Nov-20	09-Nov-20	13-Nov-20	-	-	-	-	<1	-	-	-
26-Nov-20	30-Nov-20	04-Dec-20	-	-	-	-	1	-	-	-
07-Jan-21	11-Jan-21	29-Jan-21	-	-	-	-	<1	-	-	-
[illegible]										

EPA Licence Effluent Quality Data

Licensee Name	**Bega Valley Shire Council**
Licensee Address	**No. 4 Zingel Place, Bega**
Site Name	**Merimbula Sewage Treatment Plant**
Site Location	**Princes Highway, Merimbula**
EPA Licence Number (EPL)	**1741**
Link to Licence at EPA Website	http://www.epa.nsw.gov.au/prpoeoapp/ *(select Licences option, enter Licence Number, select Search)*
Sample Point	**Groundwater quality monitoring point located in the Merimbula dunes near the exfiltration ponds and labelled as "Point 11" on photo titled "Environmental Monitoring Sites".**
Required Sampling Frequency & Type	**Quarterly Grab Sample**

			pH	Temperature	Conductivity	Dissolved Oxygen	Redox Potential	Faecal Coliforms	Enterococci	Alkalinity (as $CaCO_3$)	Calcium	Potassium	Sodium	Magnesium	Chloride	Chlorine	Sulfate	Total Nitrogen	Ammonia	Total Oxidised Nitrogen	Nitrate	Nitrite	Total Phosphorus	Orthophosphate	Depth to Water
		Units	pH Units	°C	mS/cm	mg/L	mV	cfu/100mL	cfu/100mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m
		EPL 100%ile Limit																							
Date Sampled	**Date Obtained**	**Date Published**																							
5-Feb-14	19-Feb-14	19-Sep-14	6.22	17.7	0.616	1.03	-178.5	<2	<2	183	24.3	15.7	66.0	16.2	79.6	-	7.2	1.76	0.8	<0.05	-	-	0.81	0.71	2.040
7-May-14	16-May-14	19-Sep-14	6.13	17.6	0.616	1.36	-142.4	<2	<2	170	23.9	15.9	68.8	16.8	82.0	-	7.6	1.71	0.9	<0.05	-	-	0.76	0.69	1.898
5-Aug-14	15-Aug-14	19-Sep-14	6.33	14.7	0.624	1.26	-142.3	<1	<1	155	23.1	14.8	64.1	16.3	90.6	-	8.8	1.69	1.0	<0.05	-	-	0.69	0.65	1.964
5-Nov-14	17-Nov-14	25-Nov-14	6.62	15.4	0.689	1.29	-142.2	<1	<1	150	20.7	14.2	76.3	17.2	113	-	7.0	1.86	0.9	<0.05	<0.05	<0.01	0.64	0.53	1.966
19-Feb-15	3-Mar-15	10-Mar-15	6.82	19.4	0.773	0.88	-132.3	<1	<1	177	23.3	15.5	83.0	19.4	124	<0.03	9.4	1.83	1.2	<0.05	<0.05	<0.01	0.62	0.59	1.680
21-May-15	28-May-15	2-Jun-15	6.81	16.7	0.748	1.26	-149.5	<2	<2	169	24.1	15.1	87.4	18.8	121	<0.03	11.0	1.75	1.0	<0.05	<0.05	<0.01	0.72	0.62	1.680
6-Aug-15	14-Aug-15	15-Sep-15	6.63	13.7	0.810	1.78	-144.8	<2	<2	155	24.8	15.7	85.3	21.4	159	<0.03	18.4	1.74	1.0	<0.05	<0.05	<0.01	0.505	0.49	1.876
26-Nov-15	7-Dec-15	11-Dec-15	6.75	17.9	0.808	1.14	-199.0	<2	<2	150	23.0	13.4	95.8	18.2	147	<0.03	13.8	1.70	0.9	<0.05	<0.05	<0.01	0.52	0.50	1.635
25-Feb-16	7-Mar-16	12-Mar-16	6.73	20.5	0.270	1.20	-143.2	12	<2	85	11.4	6.9	23.9	10.2	26.0	<0.03	2.4	1.91	0.4	<0.05	<0.05	<0.01	0.64	0.57	1.615
2-Jun-16	16-Jun-16	24-Jun-16	6.76	16.8	0.454	1.57	2.6	<2	<2	109	17.7	8.6	37.2	13.7	63.6	<0.03	3.6	1.42	0.5	<0.05	<0.05	<0.01	0.61	0.57	2.063
25-Aug-16	5-Sep-16	16-Sep-16	6.68	14.9	0.578	1.06	-124.6	<2	<2	120	19.0	9.0	53.0	15.4	94.0	<0.03	2.3	1.54	0.6	<0.05	<0.05	<0.01	0.53	0.48	1.836
16-Nov-16	24-Nov-16	28-Nov-16	6.97	15.8	0.674	1.50	-97.3	<2	<2	128	22.2	11.4	71.5	16.1	124	<0.03	3.0	1.66	0.8	<0.05	<0.05	<0.01	0.54	0.50	2.112
15-Feb-17	22-Feb-17	23-Feb-17	7.08	19.2	0.635	1.07	-114.0	<2	<2	169	25.3	13.0	84.3	14.6	96.3	<0.03	1.4	1.55	0.7	<0.05	<0.05	<0.01	0.72	0.68	2.044
24-May-17	30-May-17	1-Jun-17	7.04	16.4	0.710	1.25	-95.8	<2	<2	174	26.6	13.5	80.8	16.5	120	<0.03	1.1	1.41	0.7	<0.05	<0.05	<0.01	0.62	0.61	1.933
16-Aug-17	30-Aug-17	1-Sep-17	7.01	14.8	0.730	2.08	-88.9	<2	<2	166	27.1	11.8	83.2	17.9	132	<0.03	2.4	1.40	0.7	<0.05	<0.05	<0.01	0.55	0.54	2.184
14-Dec-17	24-Dec-17	5-Feb-18	7.19	16.5	0.611	1.01	-185.1	90	<2	154	22.3	11.2	74.5	15.5	104	<0.03	4.0	1.36	0.6	<0.05	<0.05	<0.01	0.59	0.59	2.068
14-Mar-18	23-Mar-18	26-Mar-18	7.23	18.6	0.458	0.19	-220.0	<2	<2	160	26.6	12.8	53.9	11.0	14.6	<0.03	1.3	1.23	0.6	<0.05	<0.05	<0.01	0.85	0.80	1.828
14-Jun-18	25-Jun-18	26-Jun-18	7.19	15.9	0.751	1.54	-130.5	<2	<2	147	42.2	12.8	74.6	16.0	146	<0.03	20.1	1.36	0.7	<0.05	<0.05	<0.01	0.70	0.67	1.990
13-Sep-18	25-Sep-18	26-Sep-18	7.26	14.6	0.708	1.16	-153.3	<2	<2	144	37.9	11.6	62.8	14.7	130	<0.03	12.4	1.25	1.0	<0.05	<0.05	<0.01	0.68	0.58	2.276
11-Dec-18	27-Dec-18	2-Jan-19	7.18	17.0	0.932	0.90	-200.2	<2	<2	135	37.7	11.9	107	21.8	175	<0.03	21.6	1.35	0.8	<0.05	<0.05	<0.01	0.61	0.59	2.163
15-Mar-19	9-Apr-19	12-Apr-19	7.26	18.9	1.000	2.81	-60.0	<2	<2	135	31.7	12.6	145	13.7	219	-	4.7	1.56	0.9	<0.05	<0.05	<0.01	0.64	0.56	1.945
20-Jun-19	17-Jul-19	17-Jul-19	6.74	15.4	0.893	2.16	-96.0	<1	<1	166	-	-	-	-	-	-	-	1.32	0.7	0.25	0.25	<0.01	0.61	0.56	2.008
11-Sep-19	23-Sep-19	25-Sep-19	6.79	14.9	0.891	1.48	-198.5	<1	<1	162	-	-	-	-	-	-	-	1.21	0.6	<0.05	<0.05	<0.01	0.59	0.59	2.325
12-Dec-19	9-Jan-20	4-Feb-20	7.35	16.9	0.862	4.25	-71.9	<2	<2	168	37.6	14.2	114	13.3	152	-	3.2	1.10	0.4	<0.05	<0.05	<0.01	0.70	0.68	2.472
12-Feb-20	27-Feb-20	5-Mar-20	6.82	18.0	1.030	1.13	-140.7	<2	<2	171	40.2	17.2	124	12.3	180	-	20.9	1.27	0.7	<0.05	<0.05	<0.01	0.88	0.84	1.855
21-May-20	29-May-20	1-Jun-20	7.30	16.9	1.040	1.71	-3.1	<2	<2	156	35.2	16.6	126	13.5	195	-	19.0	1.36	0.8	<0.05	<0.05	<0.01	0.74	0.73	2.236
20-Aug-20	28-Aug-20	31-Aug-20	7.00	13.7	0.947	1.79	-39.3	<2	<2	155	-	-	-	-	-	-	-	1.30	0.7	0.08	0.08	<0.01	0.51	0.48	1.603
26-Nov-20	4-Dec-20	9-Dec-20	7.24	18.0	1.060	1.74	-78.5	<2	<2	152	49.7	13.6	90.7	17.6	184	-	30.5	1.46	0.7	<0.05	<0.05	<0.01	0.56	0.48	-
18-Feb-21	4-Dec-20	29-Mar-21	7.20	18.0	1.080	1.74	-78.5	<1	<1	141	-	-	-	-	-	-	-	1.46	0.9	<0.05	<0.05	<0.01	0.59	0.52	1.890
24-Aug-21	1-Sep-21	17-Sep-21	6.86	18.0	0.923	1.74	-78.5	<2	<2	142					179	-	27.0	1.57	0.8	<0.05	<0.05	<0.01	0.52	0.5	1.890
23-Nov-21	3-Dec-21	21-Dec-21	6.69	18.0	1.080	1.74	-78.5	<1	<1	145					224	-	21.5	1.6	0.8	<0.05	<0.05	<0.01	0.48	0.44	1.890
21-Apr-22	3-May-22	12-Sep-23	6.97	18.0	1.170	1.74	-78.5	<2	2	169					281	-	18.1	1.89	0.7	0.09	0.09	<0.01	0.35	0.33	1.890

EPA Licence Effluent Quality Data

Licensee Name	Bega Valley Shire Council
Licensee Address	No. 4 Zingel Place, Bega
Site Name	Merimbula Sewage Treatment Plant
Site Location	Princes Highway, Merimbula
EPA Licence Number (EPL)	1741
Link to Licence at EPA Website	http://www.epa.nsw.gov.au/prpoeoapp/ *(select Licences option, enter Licence Number, select Search)*
Sample Point	Groundwater quality monitoring point located in the Merimbula dunes near the exfiltration ponds and labelled as "Point 12" on photo titled "Environmental Monitoring Sites".
Required Sampling Frequency & Type	Quarterly Grab Sample

			pH	Temperature	Conductivity	Dissolved Oxygen	Redox Potential	Faecal Coliforms	Enterococci	Alkalinity (as CaCO3)	Calcium	Potassium	Sodium	Magnesium	Chloride	Chlorine	Sulfate	Total Nitrogen	Ammonia	Total Oxidised Nitrogen	Nitrate	Nitrite	Total Phosphorus	Orthophosphate	Depth to Water
		Units	pH Units	oC	mS/cm	mg/L	mV	cfu/100mL	cfu/100mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m
		EPL 100%ile Limit																							
Date Sampled	**Date Obtained**	**Date Published**																							
5-Feb-14	19-Feb-14	19-Sep-14	7.40	17.2	1.629	1.79	57.6	<2	<2	241	101	7.2	197	17.3	399	-	29.4	0.52	<0.1	0.28	-	-	0.05	0.05	7.190
7-May-14	16-May-14	19-Sep-14	7.21	17.4	2.022	2.23	-51.5	<5	<2	246	106	9.4	257	21.5	494	-	38.1	0.33	<0.1	0.09	-	-	0.05	0.05	6.700
5-Aug-14	15-Aug-14	19-Sep-14	7.56	16.5	1.852	1.30	-92.3	<1	<1	250	104	7.9	216	19.9	442	-	31.4	0.30	<0.1	0.08	-	-	0.05	0.06	6.947
5-Nov-14	17-Nov-14	25-Nov-14	7.66	16.9	1.700	1.77	-47.5	<1	<1	244	97.4	6.8	194	17.2	373	-	28.6	0.38	<0.1	0.16	0.13	0.04	0.04	0.09	6.969
19-Feb-15	3-Mar-15	10-Mar-15	7.76	19.4	1.660	1.81	0.9	<1	<1	253	102	6.9	190	17.4	363	<0.03	27.6	0.45	<0.1	0.19	0.19	<0.01	0.05	0.06	7.094
21-May-15	28-May-15	2-Jun-15	7.72	16.7	1.760	2.00	-85.7	<2	<2	259	106	7.7	218	18.0	412	<0.03	29.7	0.36	<0.1	0.14	0.14	<0.01	0.05	0.04	6.885
6-Aug-15	14-Aug-15	15-Sep-15	7.65	15.6	1.530	6.10	-82.6	<2	<2	280	105	5.9	166	16.5	340	<0.03	26.3	0.46	<0.1	0.18	0.18	<0.01	0.104	0.02	6.946
26-Nov-15	7-Dec-15	11-Dec-15	7.71	18.1	1.540	2.74	-35.5	<2	<2	260	103	5.7	176	15.2	307	<0.03	25.5	0.59	<0.1	0.31	0.29	0.02	0.04	0.04	6.867
25-Feb-16	7-Mar-16	12-Mar-16	7.77	21.0	1.410	3.31	-9.8	<2	<2	265	96.6	5.8	157	14.4	297	<0.03	26.2	0.48	<0.1	0.23	0.23	<0.01	0.06	0.08	6.965
2-Jun-16	16-Jun-16	24-Jun-16	7.73	16.5	1.420	2.67	21.4	<2	<2	264	101	6.1	153	14.3	284	<0.03	23.2	0.48	<0.1	0.24	0.23	0.01	0.05	0.04	7.018
25-Aug-16	5-Sep-16	16-Sep-16	7.76	15.8	1.240	2.72	-3.6	<2	<2	268	94.6	4.7	122	13.2	234	<0.03	22.4	0.45	<0.1	0.23	0.21	0.02	0.05	0.03	6.990
16-Nov-16	24-Nov-16	28-Nov-16	8.00	17.5	1.360	2.17	24.5	<2	<2	287	99.4	5.2	142	13.8	265	<0.03	24.1	0.37	<0.1	0.15	0.13	0.02	0.05	0.05	-
15-Feb-17	22-Feb-17	23-Feb-17	7.78	18.8	1.420	2.55	57.0	<2	<2	287	106	5.3	188	15.6	292	<0.03	24.9	0.57	<0.1	0.32	0.30	0.01	0.04	0.05	-
24-May-17	30-May-17	1-Jun-17	7.82	16.4	1.520	1.56	-52.5	<2	<2	306	105	5.0	177	16.3	244	<0.03	17.3	0.31	<0.1	<0.05	<0.05	<0.01	0.07	0.04	6.960
16-Aug-17	30-Aug-17	1-Sep-17	7.83	16.6	1.500	1.96	-40.5	<2	<2	333	121	4.5	183	17.3	318	<0.03	22.2	0.31	<0.1	<0.05	<0.05	<0.01	0.08	0.05	-
14-Dec-17	24-Dec-17	5-Feb-18	7.86	16.8	1.580	1.03	-82.9	40	6	325	115	4.6	190	17.4	350	<0.03	31.2	0.33	<0.1	<0.05	<0.05	<0.01	0.08	0.04	7.086
14-Mar-18	23-Mar-18	26-Mar-18	7.82	16.6	1.610	0.29	-122.0	<2	<2	328	121	5.6	206	19.6	189	<0.03	15.6	0.29	<0.1	<0.05	<0.05	0.01	0.07	0.03	7.199
14-Jun-18	25-Jun-18	26-Jun-18	7.86	16.3	1.810	1.30	-83.8	<2	<2	277	120	8.0	223	21.7	415	<0.03	29.0	0.29	<0.1	<0.05	<0.05	<0.01	0.07	0.05	7.060
13-Sep-18	25-Sep-18	26-Sep-18	7.90	17.3	1.950	1.05	11.0	<2	<2	309	116	8.6	234	21.4	449	<0.03	32.3	0.26	0.2	<0.05	<0.05	<0.01	0.06	0.06	7.400
11-Dec-18	27-Dec-18	2-Jan-19	7.87	17.1	2.090	1.07	-143.9	<2	<2	331	129	7.6	290	24.8	455	<0.03	35.0	0.31	0.3	<0.05	<0.05	<0.01	0.05	0.04	7.161
15-Mar-19	9-Apr-19	12-Apr-19	7.63	16.9	2.100	2.85	-42.9	<2	<2	247	116	7.4	279	20.3	471	-	36.4	0.24	<0.1	<0.05	<0.05	<0.01	0.04	<0.02	7.155
20-Jun-19	17-Jul-19	17-Jul-19	7.59	16.2	2.320	5.01	-24.8	<1	<1	283	-	-	-	-	-	-	-	0.25	<0.1	<0.05	<0.05	<0.01	0.04	<0.02	6.985
11-Sep-19	23-Sep-19	25-Sep-19	7.64	17.0	2.580	1.75	-52.8	<1	<1	259	-	-	-	-	-	-	-	0.34	<0.1	0.09	0.09	<0.01	0.04	<0.02	7.070
12-Dec-19	9-Jan-20	4-Feb-20	8.02	19.0	2.620	5.22	-8.4	<2	<2	268	119	11.7	350	29.0	572	-	42.3	0.23	<0.1	<0.05	<0.05	<0.01	0.04	0.04	7.223
12-Feb-20	27-Feb-20	5-Mar-20	7.69	18.6	2.910	1.67	-60.3	<2	<2	269	121	12.9	398	34.8	718	-	49.2	0.24	<0.1	<0.05	<0.05	<0.01	0.06	<0.02	7.072
21-May-20	29-May-20	1-Jun-20	7.87	16.5	3.070	2.40	-49.8	<2	<2	323	124	12.6	392	38.7	760	-	50.9	0.29	<0.1	<0.05	<0.05	<0.01	0.06	0.05	7.052
20-Aug-20	28-Aug-20	31-Aug-20	7.83	15.7	3.190	2.43	60.6	<2	<2	314	-	-	-	-	-	-	-	0.25	<0.1	0.06	0.06	<0.01	0.04	0.02	6.742
26-Nov-20	4-Dec-20	9-Dec-20	8.03	17.7	2.220	2.56	-21.4	<2	<2	275	110	8	266	22.6	523	-	38	0.40	<0.1	0.19	0.19	<0.01	0.04	0.04	-
18-Feb-21	4-Dec-20	29-Mar-21	7.99	17.7	1.940	2.56	-21.4	<1	<1	268	-	-	-	-	-	-	-	0.5	<0.1	0.27	0.27	<0.01	0.04	0.05	5.655
24-Aug-21	1-Sep-21	17-Sep-21	7.7	17.7	1.100	2.56	-21.4	<2	<2	258	-	-	-	-	196	-	18.9	0.98	<0.1	0.64	0.64	<0.01	0.04	0.04	5.655
23-Nov-21	3-Dec-21	21-Dec-21	7.54	17.7	1.200	2.56	-21.4	<1	<1	344					189	-	19	0.81	<0.1	0.44	0.44	<0.01	0.06	0.05	5.655
21-Apr-22	3-May-22	12-Sep-23	8.07	17.7	1.140	2.56	-21.4	<2	4	261					112	-	16.1	0.99	<0.1	0.73	0.73	<0.01	0.05	0.03	5.655

EPA Licence Effluent Quality Data

Licensee Name	**Bega Valley Shire Council**
Licensee Address	**No. 4 Zingel Place, Bega**
Site Name	**Merimbula Sewage Treatment Plant**
Site Location	**Princes Highway, Merimbula**
EPA Licence Number (EPL)	**1741**
Link to Licence at EPA Website	http://www.epa.nsw.gov.au/prpoeoapp/ *(select Licences option, enter Licence Number, select Search)*
Sample Point	**Groundwater quality monitoring point located in the Merimbula dunes near the exfiltration ponds and labelled as "Point 13" on photo titled "Environmental Monitoring Sites".**
Required Sampling Frequency & Type	**Quarterly Grab Sample**

			pH	Temperature	Conductivity	Dissolved Oxygen	Redox Potential	Faecal Coliforms	Enterococci	Alkalinity (as CaCO3)	Calcium	Potassium	Sodium	Magnesium	Chloride	Chlorine	Sulfate	Total Nitrogen	Ammonia	Total Oxidised Nitrogen	Nitrate	Nitrite	Total Phosphorus	Orthophosphate	Depth to Water
		Units	pH Units	oC	mS/cm	mg/L	mV	cfu/100mL	cfu/100mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m
		EPL 100%ile Limit																							
Date Sampled	**Date Obtained**	**Date Published**																							
5-Feb-14	19-Feb-14	19-Sep-14	7.66	18.3	0.790	2.34	64.9	<2	<2	179	37.4	19.2	98.5	9.09	126	-	26.3	1.40	0.8	0.11	-	-	7.77	7.29	6.096
7-May-14	16-May-14	19-Sep-14	7.60	17.5	0.830	2.24	9.2	<2	<2	173	39.7	21.4	103	9.71	129	-	31.2	1.42	0.9	0.10	-	-	7.07	6.34	5.737
5-Aug-14	15-Aug-14	19-Sep-14	7.70	16.5	0.976	2.09	13.3	<1	<1	216	58.3	18.4	105	11.5	151	-	33.7	1.49	0.9	0.26	-	-	6.30	6.04	5.954
5-Nov-14	17-Nov-14	25-Nov-14	7.92	17.2	1.030	1.08	-46.0	<1	<1	250	56.3	20.5	110	16.0	150	-	31.7	1.54	1.0	<0.05	<0.05	<0.01	6.01	5.61	5.799
19-Feb-15	3-Mar-15	10-Mar-15	7.91	18.4	0.991	1.74	5.2	<1	2	208	53.3	22.0	110	10.9	156	<0.03	36.2	1.25	0.8	0.08	0.08	<0.01	6.91	6.56	5.853
21-May-15	28-May-15	2-Jun-15	8.15	17.4	0.930	1.49	-28.9	<2	<2	195	46.3	21.8	120	9.41	150	<0.03	33.3	1.29	0.8	0.10	0.10	<0.01	7.75	7.07	5.800
6-Aug-15	14-Aug-15	15-Sep-15	7.86	16.2	0.850	2.16	-31.2	<2	<2	193	43.8	21.3	98.2	9.07	140	<0.03	29.6	1.48	1.0	<0.05	<0.05	<0.01	7.92	6.30	5.903
26-Nov-15	7-Dec-15	11-Dec-15	7.92	19.3	0.885	2.51	-11.7	<2	28	196	51.0	18.9	96.1	10.4	124	<0.03	26.5	1.75	0.9	0.46	0.46	<0.01	6.89	6.69	5.819
25-Feb-16	7-Mar-16	12-Mar-16	7.93	19.0	0.949	3.52	105.9	<2	<2	193	49.8	20.8	112	10.6	152	<0.03	34.5	1.73	0.5	0.68	0.68	<0.01	7.45	6.28	5.800
2-Jun-16	16-Jun-16	24-Jun-16	7.97	17.4	0.837	3.93	78.3	<2	2	171	44.6	21.6	89.6	10.0	133	<0.03	33.1	1.22	0.5	0.07	0.07	<0.01	6.74	6.93	-
25-Aug-16	5-Sep-16	16-Sep-16	7.90	16.7	0.896	2.94	67.1	<2	<2	218	58.5	21.5	92.0	11.0	144	<0.03	30.4	1.44	0.7	0.35	0.35	<0.01	6.08	5.89	-
16-Nov-16	24-Nov-16	28-Nov-16	8.06	18.6	0.921	2.33	34.1	<2	<2	203	56.3	24.7	92.4	11.9	137	0.04	31.6	1.59	1.0	0.14	0.14	<0.01	5.90	5.69	5.900
15-Feb-17	22-Feb-17	23-Feb-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-May-17	30-May-17	1-Jun-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-Aug-17	30-Aug-17	1-Sep-17	7.90	17.3	0.926	1.38	-23.5	<2	<2	222	59.5	17.8	112	9.73	142	<0.03	31.3	1.94	1.5	<0.05	<0.05	<0.01	5.23	5.18	6.141
14-Dec-17	24-Dec-17	5-Feb-18	7.96	17.6	0.954	1.15	-66.9	259	<2	239	60.0	21.1	119	10.8	164	<0.03	24.6	2.80	2.4	<0.05	<0.05	<0.01	5.43	5.38	6.155
14-Mar-18	23-Mar-18	26-Mar-18	7.92	17.9	0.921	0.99	-120.0	<2	<2	244	58.4	19.1	119	11.8	127	<0.03	17.4	2.21	1.8	<0.05	<0.05	<0.01	6.03	5.67	6.010
14-Jun-18	25-Jun-18	26-Jun-18	7.94	17.4	1.010	0.78	-17.9	<2	<2	178	53.2	19.8	124	10.4	205	<0.03	31.9	1.39	0.8	<0.05	<0.05	<0.01	5.77	5.67	6.018
13-Sep-18	25-Sep-18	26-Sep-18	8.02	17.5	1.030	0.93	-17.3	<2	<2	189	46.4	20.5	124	10.0	199	<0.03	34.2	1.52	1.5	<0.05	<0.05	<0.01	5.93	5.27	6.168
11-Dec-18	27-Dec-18	2-Jan-19	7.99	17.8	1.170	1.04	-4.1	<2	<2	201	56.3	22.7	160	10.6	198	<0.03	39.9	1.49	1.1	0.11	0.11	<0.01	6.37	5.43	6.119
15-Mar-19	9-Apr-19	12-Apr-19	7.85	18.1	1.190	1.34	0.0	<2	<2	150	49.8	21.7	173	10.2	242	-	48.9	1.32	1.4	<0.05	<0.05	<0.01	7.36	7.20	6.090
20-Jun-19	17-Jul-19	17-Jul-19	7.92	17.2	1.270	1.50	10.4	<1	<1	163	-	-	-	-	-	-	-	1.40	0.9	<0.05	<0.05	<0.01	7.11	6.18	6.025
11-Sep-19	23-Sep-19	25-Sep-19	7.90	17.7	1.240	1.32	26.0	<1	<1	151	-	-	-	-	-	-	-	1.33	0.9	<0.05	<0.05	<0.01	7.18	6.96	6.110
12-Dec-19	9-Jan-20	4-Feb-20	8.06	18.4	1.380	1.08	94.5	<2	<2	192	60.7	26.7	181	13	240	-	43.0	0.98	0.6	0.14	0.11	0.03	6.86	6.46	6.226
12-Feb-20	27-Feb-20	5-Mar-20	8.11	19.1	1.210	0.85	-58.9	<2	<2	158	42.4	23.9	158	10.7	221	-	37.7	1.25	0.8	<0.05	<0.05	<0.01	6.57	6.33	5.723
21-May-20	29-May-20	1-Jun-20	8.06	17.7	1.350	1.62	55.9	<2	<2	194	47.6	24.1	172	11.8	247	-	41.2	1.00	0.5	<0.05	<0.05	<0.01	6.78	6.45	6.026
20-Aug-20	28-Aug-20	31-Aug-20	8.10	16.8	1.150	1.77	100.6	<2	<2	187	-	-	-	-	-	-	-	1.07	0.7	<0.05	<0.05	<0.01	6.78	5.21	5.724
26-Nov-20	4-Dec-20	9-Dec-20	8.13	18.8	1.220	2.95	129.3	<2	<2	198	49.2	20.4	132	11.6	207	-	36.6	1.30	0.4	0.57	0.57	<0.01	6.49	5.98	-
18-Feb-21	4-Dec-20	29-Mar-21	8.07	18.8	1.22	2.95	129.3	<1	<1	200	-	-	-	-	-	-	-	1.17	0.3	0.23	0.23	<0.01	6.27	5.48	6.787
24-Aug-21	1-Sep-21	17-Sep-21	7.9	18.8	1.32	2.95	129.3	<2	<2	240	-	-	-	-	267	-	40.4	1.3	0.3	<0.50	<0.50	<0.01	5.05	4.61	6.787
23-Nov-21	3-Dec-21	21-Dec-21	7.73	18.8	1.49	2.95	129.3	<1	<1	256					309	-	40.9	1.34	0.6	0.48	0.48	<0.01	4.18	4.05	6.787
21-Apr-22	3-May-22	12-Sep-23	7.97	18.8	1.21	2.95	129.3	<2	<2	253					193	-	32.3	1.09	0.1	0.66	0.65	0.01	4.31	4.11	6.787

Site Map

Licensee Name	**Bega Valley Shire Council**
Site Name	**Merimbula Sewage Treatment Plant**
EPA EPL Number	**1741**

Environmental Monitoring Sites

Licensee Name	**Bega Valley Shire Council**
Site Name	**Merimbula Sewage Treatment Plant**
EPA EPL Number	**1741**

Licence Limit Exceedances Log

Licensee Name	**Bega Valley Shire Council**
Site Name	**Merimbula Sewage Treatment Plant**
EPA EPL Number	**1741**
Sample Point	**Point 4**

Licence Parameter	Date Sampled	Result	Licence Limit	Reason for Limit Exceedance
Faecal Coliforms	7/11/2012	1,300	200	*During late October there was a planned increase in the operating level of effluent pond at the STP to accommodate the commissioning of the new reuse dam at Pambula River Flats (capacity 20ML). It is considered that accumulated faecal matter from birds on the banks of the effluent pond has raised coliform concentrations as the pond level has risen, thus contributing to this result.*
Faecal Coliforms	5/12/2012	700	200	*Pond Level returned to previous levels as from 28/11/12. Failed dosing pump (November) also repaired. Disinfection performance returning to within licence levels, however concentrations still in exceedance as at 05/12/12.*
Faecal Coliforms	2/01/2013	380	200	*The hypochlorite dosing system failed to dose. This resulted in a reduction in disinfection at the start of the effluent pond, which inreased final concentrations of faecal coliforms at the sample point / point of discharge from the plant. The failed disinfection system is again under repair.*
pH	6/02/2013	9.1	6.5-8.5	*Open storage during summer periods promotes algae growth. This in turn increases pH levels. An algae removal membrane system was approved in Nov 2012 for installation as a trial at the Merimbula STP by April 2013*
Suspended Solids	6/02/2013	36	30	*As above, summer periods promote algae growth which raises pH and is evident as an increase in suspended solids. Remedial action includes trial algae-removal unit, per above.*
Oil & Grease	6/03/2013	13	10	*Algal cells are likely to be this measured source of oil and grease during the summer / autumn period, where high algal concentrations are continuing.BVSC will monitor this result for recurrence, as algal concentrations are expected to reduce over the late autumn months.*
Faecal Coliforms	6/03/2013	530	200	*As algal growth during the summer period increases, the effectiveness of the disinfection system decreases, where the available chlorine is consumed by the algae. Algal populations remain high as at the sample date 06/03/13.*
Faecal Coliforms	2/04/2014	220	200	*Faecal recontamination is occuing in the open pondage, downstream of the formal chlorine disinfection process at the head of the pond. There is no formal facility installed at Merimbula STP, to reduce or eliminate faecal recontamination in open pondage.*
Faecal Coliforms	4/06/2014	1,360	200	*A disinfection system is present at the Merimbula STP, however there is no formal secondary disinfection system to reduce faecal recontamination within the open pondage at this site.*
Faecal Coliforms	7/01/2015	15,000	200	*Again, existing secondary disinfection system is not designed to reduce faecal recontamination within the open pondage at Merimbula.Faecal coliform numbers at end of disinfection reported as 2 cfu/100mL. That is, results show compliance when sampled the end of the disinfection process unit.*
BOD	2/09/2015	29	15	*O&M Contactor, Downer, explain that high BOD is due to proliferation of Chlorophyll A. However as the results trend appears highly erratic (104 on 13/08/15, yet just 2 on 19/08/15), Council have requested Downer to review these results with their NATA laboratory. Further comment to be provided.*
BOD	6/01/2016	31	15	*Council's operator, Downer Pty Ltd, suggests that high loadings from visiting tourist population, together with a high rainfall event, placed stress on plant, which in turn resulted in a reduced level of treatment and so higher BOD in plant effluent.*
Ammonia	4/01/2017	7.4	5	*Due to an influx of visitors to Merimbula after New Year's Day, flow to the Merimbula STP increased significantly. Changes to the treatment process were slow to react to the increase in load and as a result there was an elevated Ammonia concentration recorded on the 4th January 2017. Constant changes were made to the process to compensate for the load variance and the Ammonia concentration levels soon returned to normal.*
pH	1/03/2017	8.61	6.5-8.5	*Algae proliferation during February caused pH of effluent within the storage pond to increase beyond the upper licence limit of 8.50.*
pH	5/02/2018	8.6	6.5-8.5	*During summer months algae blooms occur in the effluent pond at Merimbula STP and causes the pH of the effluent to increase. Operational steps are now employed to reduce algae in the effluent pond to ensure compliance with the pH limit.*
pH	7/03/2018	8.7	6.5-8.5	*During summer months algae blooms occur in the effluent pond at Merimbula STP and causes the pH of the effluent to increase. Operational steps are now employed to reduce algae in the effluent pond to ensure compliance with the pH limit.*
Faecal Coliforms	7/03/2018	560	200	*Significant Chlorine dosing occurred at the top end of the Effluent Pond. Effluent was also re-chlorinated in the last channel of the effluent pond to compensate for bacterial regrowth and contamination by birds in the pond. As a result of algae blooms the pH is above the level where optimum disinfection can occur and therefore the non -compliant faecal coli result. Operational steps are now employed to reduce algae in the effluent pond to ensure a lower pH level where effective disinfection will occur.*
Faecal Coliforms	6/11/2019	245	200	*Significant Chlorine dosing occurred at the top end of the Effluent Pond. Effluent was also re-chlorinated in the last channel of the effluent pond to compensate for bacterial regrowth and contamination by birds in the pond. As a result of algae blooms the pH is above the level where optimum disinfection can occur and therefore the non -compliant faecal coli result. Operational steps are now employed to reduce algae in the effluent pond to ensure a lower pH level where effective disinfection will occur.*
pH	15/01/2020	9.0	6.5-8.5	*During summer months algae blooms occur in the effluent pond at Merimbula STP and causes the pH of the effluent to increase. Operational steps are now employed to reduce algae in the effluent pond to ensure compliance with the pH limit.*
pH	4/03/2020	9.0	6.5-8.5	*During summer months algae blooms occur in the ocean outfall pond at Merimbula STP and causes the pH of the effluent to increase. Operational steps are employed to reduce algae in the effluent pond to ensure compliance with the pH limit.*
pH	1/04/2020	8.88	6.5-8.5	*During summer months algae blooms occur in the ocean outfall pond at Merimbula STP and causes the pH of the effluent to increase. Dosing Sodium Hypochlorite to maintain compliant Faecal Coliforms increases the pH further. Several operational steps are employed to reduce algae in the effluent pond.*
pH	7/05/2020	8.6	6.5-8.5	*During summer months algae blooms occur in the ocean outfall pond at Merimbula STP and causes the pH of the effluent to increase. Dosing Sodium Hypochlorite to maintain compliant Faecal Coliforms increases the pH further. Several operational steps are employed to reduce algae in the effluent pond.*
Ammonia	8/10/2020	13.3	5	*The catch pond was cleaned and all the sludge removed from the catch pond was pumped into a sludge lagoon. The supernatant in the sludge lagoon returned to the two aeration basins as a result of excess sludge been discharged. The returning supernatant impacted the process severely and not sufficient aeration was available.*
pH	3/12/2020	9.2	6.5-8.5	*During summer months algae blooms occur in the ocean outfall pond at Merimbula STP and causes the pH of the effluent to increase. Operational steps are employed to reduce algae in the effluent pond to ensure compliance with the pH limit.*
Faecal Coliforms	4/03/2021	232	200	*Significant Chlorine dosing occurred at the top end of the Effluent Pond. Effluent was also re-chlorinated in the last channel of the effluent pond to compensate for bacterial regrowth and contamination by birds in the pond. As a result of algae blooms the pH is above the level where optimum disinfection can occur and therefore the non -compliant Faecal coli result. Operational steps are now employed to reduce algae levels in the effluent pond to ensure a lower pH level where effective disinfection will occur.*
Faecal Coliforms	6/05/2021	1740	200	*Merimbula STP recorded 100mm of rain on 5 May and 60mm of rain on 6 May, the sample day. Over 12 ML/day entered the STP. The STP operated in HIGH FLOW all day. The Ocean outfall pond started spilling into the Wet Weather Pond and pumping commenced to ocean out of hours. At high flows the Sodium Hypochlorite dosing system becomes ineffective and impossible to ensure proper Chlorine dosage and disinfection contact time.*
BOD	5/08/2021	27	15	*The aeration level was sufficient to facilitate proper and compliant nitrification as well as providing sufficient dissolved oxygen to oxidise biodegradable organic material. The non compliant BOD concentration is as a result of organic matter and algae currently present in the ocean outfall pond that accumulates in the sampling well. ACTION Improve the circulation through the Ocean Outfall Pond*
BOD	2/09/2021	37	15	*High BOD because of algae growth in the Ocean Outfall Pond that accumulates in sampling well.The aeration level was sufficient to facilitate proper and compliant nitrification as well as providing sufficient dissolved oxygen to oxidise biodegradable organic material. Improve the circulation through the Ocean Outfall Pond. As per licence requirement the Chlorophyll a was determined as 3.70 µg/l.*
BOD	2/12/2021	27	15	*The aeration level was sufficient to facilitate proper and compliant nitrification as well as providing sufficient dissolved oxygen to oxidise biodegradable organic material. During summer months algae blooms occur in the effluent pond at Merimbula STP and causes the BOD to increase. As per licence requirement the Chlorophyll a was determined as 109 ug/l. Total Algae is 95600 cells/ml*
Faecal Coliforms	6/01/2022	850	200	*The far south coast experienced intense rainfall which led to ingress and infiltration of rain*
BOD	3/02/2022	15	15	*High BOD because of algae growth in the Ocean Outfall Pond that accumulates in sampling well*
Faecal Coliforms	3/03/2022	230	200	*Sodium Hypochlorite dosing was running at full capacity to maximise disinfection. However Flow was recorded at over 2 times the plant's Dry Weather Design capacity and disinfection consequently not effective.*
Faecal Coliforms	5/01/2023	206	200	*Sodium Hypochlorite dosing was running at full capacity to maximise disinfection during peak holiday flow. Ocean outfall pond also show alge growth and compromised disinfection as pH started to increase.*
Ammonia	5/10/2023	14.4	5	*Insufficiently aeration levels during the refurbishment of one of the two aerations tanks. Aeration Tank 1 is refurbished since July and all the flow is processed in Tank 2. High loads entered the STP during this period especially during the last weekend in September when Merimbula hosted a music festival. The aeration levels were insufficiently and led to poor nitrification.*
Total Nitrogen	5/10/2023	15.9	15	*High loads entered Tank 2 during the refurbishment of Tank 1 and maximum aeration applied. Tank 1 is off-line while refurbishment is continued. Tank 2 is receiving all the load and flow (up to 3 Ml/day) and aeration settings are in place to provide maximum aeration and have led to excessive formation of Nitrites/ Nitrates and hence exceeding Total Nitrogen limit*
Suspended Solids	5/10/2023	23	30	*High Total Suspended Solids because of algae growth in the Ocean Outfall Pond. During warmer months algae blooms occur in the effluent pond at Merimbula STP and changes the settleblity in the pond and thus causes the Total Suspended Solids Concentration to increase. As per licence requirement the Chlorophyll a was determined as 189 ug/l. Total Algae is 258 000 cells/ml*
Faecal Coliforms	7/12/2023	236	200	*Chlorine dosing system was fully functional but plant ran in high flow mode and residual testing undertaken with 0.15mg/l recorded on the 7/12/23*
Faecal Coliforms	8/02/2024	200	200	*Chlorine dosing system was fully functional but Chlorine residual was low due to algae growth*
Suspended Solids	3/10/2024	20	30	*High Total Suspended Solids because of algae growth in the Ocean Outfall Pond*
pH	3/10/2024	9.1	6.5-8.5	*During summer months algae blooms occur in the ocean outfall pond at Merimbula STP and causes the pH of the effluent to increase. Operational steps are employed to reduce algae in the effluent pond to ensure compliance with the pH limit.*

Data Corrections Log

Licensee Name **Bega Valley Shire Council**
Site Name **Merimbula Sewage Treatment Plant**
EPA EPL Number **1741**
Sample Point **Point 6**

Licence Parameter	Date Sampled	Original Data	Corrected Data	Date Corrected	Date Originally Published	Reason for Correction
pH	12/03/2015	8.18	8.16	6/07/2015	26/03/2015	*Data transposed with that of another site during data entry.*
Suspended Solids	12/03/2015	20	13	6/07/2015	26/03/2015	*Data transposed with that of another site during data entry.*
BOD	12/03/2015	<2	3	6/07/2015	26/03/2015	*Data transposed with that of another site during data entry.*
Faecal coliforms	12/03/2015	6	<1	6/07/2015	26/03/2015	*Data transposed with that of another site during data entry.*
Total Nitrogen	12/03/2015	0.17	0.12	6/07/2015	26/03/2015	*Data transposed with that of another site during data entry.*