

POLLUTION MONITORING DATA

Licensee: Central Coast Council, PO Box 20 Wyong NSW 2259

EPL No. 1942 – Bateau Bay Sewage Treatment System

Location of Pollution Monitoring Point: Inlet channel to the chlorine contact tank

Licence Period: 1 January 2023 – 31 December 2023

Publishing Date: 5 February 2024

COMPLIANCE STATUS

Results obtained for licence period are within annual concentration limits.

	Biochemical Oxygen Demand (BOD) (mg/L)	Oil and Grease (O&G) (mg/L)	pH	Total Suspended Solids (TSS)	Ammonia (mg/L)
License Concentration Limits					
100 percentile	30	10	6.5 - 8.5	50	30

Pollution Monitoring Data Summary (provided at the end of reporting period)

100 percentile							
Collected	Obtained	Published	BOD (mg/L)	O&G (mg/L)	pH	TSS (mg/L)	Ammonia
11/01/2023	20/01/2023	31/01/2023	10	<5	7.6	8	37.30*
23/01/2023	07/02/2023	13/02/2023	4	<5	7.1	2	6.65
04/02/2023	17/02/2023	28/02/2023	5	<5	7.1	<2	3.11
16/02/2023	2/03/2023	7/03/2023	6	<5	6.8	8	2.53
28/02/2023	9/03/2023	18/03/2023	7	<5	7.2	3	4.18
12/03/2023	23/03/2023	5/04/2023	5	<5	7.2	<2	3.12
24/03/2023	3/04/2023	8/04/2023	15	<5	7.1	6	5.77
05/04/2023	14/04/2023	20/04/2023	9	<5	7.1	7	2.74
17/04/2023	10/05/2023	15/05/2023	7	<5	7.2	<2	3.07
29/04/2023	9/05/2023	15/05/2023	6	<5	7.2	3	5.16
11/05/2023	18/05/2023	23/05/2023	5	<5	7.1	3	4.65
23/05/2023	02/06/2023	07/06/2023	6	<5	7.2	3	6.61
4/06/2023	15/06/2023	22/06/2023	7	<5	7.1	2	7.00
16/06/2023	26/06/2023	03/07/2023	12	<5	7.1	3	8.11
28/06/2023	14/06/2023	20/07/2023	11	<5	7.1	1	10.8
10/07/2023	19/07/2023	24/07/2023	5	<5	7.2	<2	6.48
22/07/2023	02/08/2023	07/08/2023	6	<5	7.1	4	6.47
03/08/2023	11/08/2023	16/08/2023	7	<5	7.2	3	7.40
15/08/2023	24/08/2023	29/08/2023	10	<5	7.2	<2	8.62
29/08/2023	11/09/2023	16/09/2023	5	<5	7.3	<2	10.1
08/09/2023	18/09/2023	24/09/2023	8	<5	7.3	5	13.4
20/09/2023	9/10/2023	15/10/2023	14	<5	7.3	6	14.8
3/10/2023	12/10/2023	18/10/2023	12	<5	7.4	3	16.1
14/10/2023	27/10/2023	02/11/2023	6	<5	7.4	2	12.2
26/10/2023	03/11/2023	08/11/2023	6	<5	7.5	4	19.9
07/11/2023	21/11/2023	27/11/2023	5	<5	7.0	<2	2.69
20/11/2023	28/11/2023	04/12/2023	5	<5	7.2	3	4.25
04/12/2023	18/12/2023	25/12/2023	4	<5	7.2	<2	5.10
15/12/2023	27/12/2023	03/01/2024	5	<5	7.3	<2	3.88
28/12/2023	10/01/2024	15/01/2024	8	<5	7.7	2	24

< : Where this symbol is shown, the result is below the limit at which the parameter can be accurately detected and reported.

n/a means not available.

Where results are below the laboratory detection limits (e.g. <2) half the value of the detection limit will be used for calculation purposes when all required data has been obtained. Where 50% or more of the sample results for a particular pollutant are below the detection limit, zero will be used for calculation purposes. This methodology is consistent with that outlined in the EPA's Load Calculation Protocol (June 2009) and will be applied when all required data for the licence period has been obtained.

FAECAL COLIFORM & ENTEROCOCCI MONITORING DATA

Licensee: Central Coast Council, PO Box 20 Wyong NSW 2259

EPL No. 1942 – Bateau Bay Sewage Treatment System

Location of Pollution Monitoring Point:

Licence Period: 1 January 2023 – 31 December 2023

Shelly Beach (Lic Pt 5), Toowoan Bay (Lic Pt 6), Blue Bay (Lic Pt 7)
and Blue Lagoon (Lic Pt 8)

Publishing Date: 5 February 2024

COMPLIANCE STATUS

The licence does not prescribe concentration limits for faecal coliforms and enterococci

Collected	Obtained	Published	Shelly Beach		Toowoan Bay		Blue Bay		Blue Lagoon	
			Faecal coliforms (cfu/100 mL)	Enterococci (mpn/100 mL)	Faecal coliforms (cfu/100 mL)	Enterococci (mpn/100 mL)	Faecal coliforms (cfu/100 mL)	Enterococci (mpn/100 mL)	Faecal coliforms (cfu/100 mL)	Enterococci (mpn/100 mL)
03 January 2023	04 January 2023	31 January 2023	-87	45	47	11	13	-6	-110	53
10 January 2023	13 January 2023	31 January 2023	2	1	4	5	0	0	400	0
17 January 2023	20 January 2023	31 January 2023	34	17	1	5	1	4	8	10
24 January 2023	24 January 2023	31 January 2023	11	2	1	1	<1	1	4	<1
7 February 2023	10 February 2023	13 February 2023	2	-6	2	<1	1	-2	4	-1
14 February 2023	17 February 2023	28 February 2023	12	14	3	-3	2	-6	8	11
21 February 2023	27 February 2023	5 March 2023	2	-1	<1	<1	2	<1	5	-5
28 February 2023	7 March 2023	12 March 2023	5	-4	15	24	4	13	4	-1
7 March 2023	13 March 2023	18 March 2023	1	-6	3	-10	3	<1	2	<1
9 March 2023	13 March 2023	18 March 2023	<1	-1	7	37	-65	<1	<1	<1
14 March 2023	17 March 2023	5 April 2023	1	-11	8	-4	-75	190	<1	<1
21 March 2023	24 March 2023	5 April 2023	<1	<1	-50	110	2	13	1	-1
28 March 2023	31 March 2023	8 April 2023	1	<1	5	-5	<1	-3	<1	-2
4 April 2023	11 April 2023	16 April 2023	28	-1	49	59	2	-1	11	-2
11 April 2023	14 April 2023	20 April 2023	3	-2	13	24	7	22	6	-6
18 April 2023	24 April 2023	29 April 2023	1	-3	<1	-3	<1	-2	<1	-3
20 April 2023	24 April 2023	29 April 2023	4	-2	<1	<1	<1	<1	1	<1
27 April 2023	2 May 2023	7 May 2023	1	<1	<1	<1	<1	<1	<1	<1
2 May 2023	5 May 2023	10 May 2023	2	-1	11	-6	<1	-1	<1	<1
9 May 2023	15 May 2023	20 May 2023	36	33	30	52	35	43	24	42
16 May 2023	24 May 2023	30 May 2023	3	<1	1	-2	<1	<1	2	-1
23 May 2023	26 May 2023	30 May 2023	<1	<1	7	-5	<1	<1	<1	-1
30 May 2023	2 June 2023	7 June 2023	<1	<1	<1	-3	<1	-1	<1	<1
6 June 2023	8 June 2023	15 June 2023	5	-11	1	-3	<1	-1	1	-8
8 June 2023	10 June 2023	17 June 2023	<1	<1	4	-1	<1	<1	<1	<1
13 June 2023	15 June 2023	20 June 2023	1	-4	1	-2	<1	<1	2	-6
20 June 2023	26 June 2023	3 July 2023	<1	<1	<1	-1	<1	<1	2	<1
27 June 2023	30 June 2023	24 July 2023	2	-4	<1	<1	<1	<1	<1	<1
4 July 2023	7 July 2023	24 July 2023	2	-1	<1	-3	3	26	<1	-2
6 July 2023	11/07/2023	24/07/2023	2	-2	3	-4	<1	<1	2	-9
11 July 2023	14 July 2023	24 July 2023	<1	<1	2	-1	<1	-1	<1	-1
18 July 2023	21 July 2023	29 July 2023	4	16	240	56	4	-6	2	-9
25 July 2023	27 July 2023	4 August 2023	<1	<1	5	14	1	-3	<1	-1
1 August 2023	4 August 2023	9 August 2023	<1	<1	8	27	<1	-4	<1	<1
8 August 2023	11 August 2023	16 August 2023	<1	-1	<1	<1	<1	<1	<1	<1
15 August 2023	21 August 2023	26 August 2023	2	<1	16	17	5	-3	4	-2
22 August 2023	1 September 2023	6 September 2023	<1	-1	1	-1	<1	<1	<1	<1
29 August 2023	1 September 2023	6 September 2023	3	230	11	15	1	-3	1	<1
5 September 2023	11 September 2023	16 September 2023	<1	<1	4	-1	<1	<1	<1	<1
7 September 2023	11 September 2023	16 September 2023	<1	<1	<1	<1	<1	<1	1	<1
12 September 2023	15 September 2023	20 September 2023	<1	<1	<1	<1	<1	<1	<1	<1
19 September 2023	25 September 2023	30 September 2023	<1	<1	1	<1	<1	1	3	1
26 September 2023	29 September 2023	4 October 2023	1	<1	<1	<1	2	<1	1	<1
3 October 2023	6 October 2023	11 October 2023	<1	<1	1	-5	<1	<1	<1	-1
10 October 2023	13 October 2023	18 October 2023	<1	<1	<1	<1	<1	-3	1	<1
17 October 2023	23 October 2023	28 October 2023	-2	-2	1	-1	200	16	<1	-3
24 October 2023	27 October 2023	1 November 2023	2	<1	<1	-1	<1	<1	3	<1
31 October 2023	6 November 2023	11 November 2023	1	-2	3	-2	2	<1	1	<1
7 November 2023	14 November 2023	20 November 2023	<1	<1	4	<1	4	-2	<1	-2
9 November 2023	14 November 2023	20 November 2023	7	-8	26	-8	<1	<1	23	-9
14 November 2023	17 November 2023	23 November 2023	6	14	8	-5	20	-9	8	-6
21 November 2023	27 November 2023	4 December 2023	<1	<1	<1	-2	<1	<1	3	-1
28 November 2023	4 December 2023	11 December 2023	3	-1	6	-5	2	78	1	-3
5 December 2023	8 December 2023	13 December 2023	2	<1	3	-1	<1	<1	<1	<1
7 December 2023	11 December 2023	18 December 2023	3	16	13	-5	<1	-1	3	<1
14 December 2023	19 December 2023	27 December 2023	-71	250	-3500	400	3	-2	35	53
21 December 2023	27 December 2023	3 January 2024	2	<1	9	-3	6	-1	3	<1
28 December 2023	3 January 2024	8 January 2024	15	19	56	21	25	11	52	36

< : Where this symbol is shown, the result is below the limit at which the parameter can be accurately detected and reported.
n/a means not available.
Where results are below the laboratory detection limits (e.g. <2) half the value of the detection limit will be used for calculation purposes when all required data has been obtained. Where 50% or more of the sample results for a particular pollutant are below the detection limit, zero will be used for calculation purposes. This methodology is consistent with that outlined in the EPA's Load Calculation Protocol (June 2009) and will be applied when all required data for the licence period has been obtained.

POLLUTION MONITORING DATA

Licensee: Central Coast Council, PO Box 20 Wyong NSW 2259

EPL No. 1942 – Bateau Bay Sewage Treatment System

Location of Pollution Monitoring Point: Composite sampling point prior to outlet to sand dune disposal area

Licence Period: 1 January 2023 – 31 December 2023

Publishing Date: 5 February 2024

COMPLIANCE STATUS

Licence Monitoring Frequency for below pollutant is twice per year. The licence does not prescribe concentration limits for these pollutants.

	Aldrin	Arsenic	Cadmium	Chlordane (cis & trans)	Chromium	Copper	Dieldrin	Endosulfan	Endrin	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Lead	Mercury	Methoxychlor	Nickel	Selenium	Silver	Zinc	alpha-BHC	beta-BHC	gamma-BHC (lindane)	p,p-DDD	p,p-DDE	p,p-DDT	PCBs
Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
No. Samples Collected	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Minimum value																										
Mean value																										
Median value																										
Maximum value																										
Limit of laboratory detection	0.01	0.2	0.1	0.01	0.2	0.5	0.01	0.01	0.01	0.01	0.01	0.01	0.1	0.3	0.01	0.2	0.2	0.1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.1

POLLUTION MONITORING DATA RESULTS

Collected	Obtained	Published	Aldrin	Arsenic	Cadmium	Chlordane (cis & trans)	Chromium	Copper	Dieldrin	Endosulfan	Endrin	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Lead	Mercury	Methoxychlor	Nickel	Selenium	Silver	Zinc	alpha-BHC	beta-BHC	gamma-BHC (lindane)	p,p-DDD	p,p-DDE	p,p-DDT	PCBs	
23-Jan-2023	07-Feb-2023	13-Feb-2023	<0.01	0.6	<0.1	<0.01	0.4	9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	<0.3	<0.01	1.4	<0.2	<0.1	41	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
17-May-2023	10 April 2023	15-May-2023	<0.01	1.3	<0.1	<0.01	0.5	5.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	<0.3	<0.01	1.5	0.2	<0.1	30	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
28-June -2023	14 July 2023	24 July 2023	<0.01	0.7	<0.1	<0.01	0.5	7.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	<0.3	<0.01	1.6	0.2	<0.1	29	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
20-Sept-2023	13 Sept 2023	18 Sept 2023	<0.01	0.4	<0.1	<0.01	0.4	4.8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	<0.3	<0.01	1.4	<0.2	0.1	22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1

<: Where this symbol is shown, the result is below the level at which the parameter can be routinely tested and reported.

n/a means not available.

Where results are below the laboratory detection limits (e.g. <2) half the value of the detection limit will be used for calculation purposes when all required data has been obtained. Where 50% or more of the sample results for a particular pollutant are below the detection limit, zero will be used for calculation purposes. This methodology is consistent with that outlined in the EPA's Load Calculation Protocol (June 2009) and will be applied when all required data for the licence period has been obtained.

FLOW MONITORING DATA

Licensee: Central Coast Council, PO Box 20 Wyong NSW 2259

EPL No. 1942 – Bateau Bay Sewage Treatment System

Location of Pollution Monitoring Point Calculated from a number flow meter monitoring points as specified in EPL 1942

Licence Period: 1 January 2023 – 31 December 2023

Publishing Date: 5 February 2024

COMPLIANCE STATUS

Licence Monitoring Frequency for flow is daily. The licence prescribes a limit of 36,000 kilolitres/day

Date	Flow (kL)	Date	Flow (kL)	Date	Flow (kL)	Date	Flow (kL)	Date	Flow (kL)	Date	Flow (kL)	Date	Flow (kL)	Date	Flow (kL)
01/01/2023	7,317	1/02/2023	6,467	1/03/2023	6,146	1/04/2023	8,405	1/05/2023	7,073	1/06/2023	6,140	1/07/2023	6,188	1/08/2023	6,398
02/01/2023	7,478	2/02/2023	6,214	2/03/2023	6,341	2/04/2023	11,720	2/05/2023	6,699	2/06/2023	6,320	2/07/2023	6,230	2/08/2023	6,351
03/01/2023	7,006	3/02/2023	6,047	3/03/2023	5,990	3/04/2023	14,089	3/05/2023	6,274	3/06/2023	6,924	3/07/2023	5,810	3/08/2023	6,768
04/01/2023	7,326	4/02/2023	6,629	4/03/2023	6,111	4/04/2023	8,348	4/05/2023	6,146	4/06/2023	6,766	4/07/2023	6,155	4/08/2023	6,609
05/01/2023	7,540	5/02/2023	6,219	5/03/2023	6,616	5/04/2023	7,793	5/05/2023	6,006	5/06/2023	6,583	5/07/2023	6,796	5/08/2023	6,660
06/01/2023	8,565	6/02/2023	5,728	6/03/2023	5,719	6/04/2023	7,404	6/05/2023	6,436	6/06/2023	6,479	6/07/2023	6,440	6/08/2023	12,146
07/01/2023	8,246	7/02/2023	5,826	7/03/2023	5,500	7/04/2023	7,900	7/05/2023	6,563	7/06/2023	6,619	7/07/2023	6,560	7/08/2023	7,821
08/01/2023	8,189	8/02/2023	5,256	8/03/2023	5,531	8/04/2023	8,102	8/05/2023	7,147	8/06/2023	6,505	8/07/2023	6,573	8/08/2023	7,611
09/01/2023	7,419	9/02/2023	11,883	9/03/2023	5,759	9/04/2023	7,938	9/05/2023	6,450	9/06/2023	6,672	9/07/2023	6,532	9/08/2023	7,262
10/01/2023	6,566	10/02/2023	15,003	10/03/2023	5,593	10/04/2023	7,700	10/05/2023	5,908	10/06/2023	6,986	10/07/2023	6,349	10/08/2023	7,149
11/01/2023	6,287	11/02/2023	8,314	11/03/2023	6,126	11/04/2023	6,423	11/05/2023	6,144	11/06/2023	6,975	11/07/2023	5,748	11/08/2023	6,945
12/01/2023	6,650	12/02/2023	7,465	12/03/2023	6,342	12/04/2023	6,541	12/05/2023	6,168	12/06/2023	7,002	12/07/2023	6,105	12/08/2023	7,141
13/01/2023	6,353	13/02/2023	6,699	13/03/2023	6,148	13/04/2023	8,508	13/05/2023	6,656	13/06/2023	6,388	13/07/2023	6,274	13/08/2023	6,869
14/01/2023	6,509	14/02/2023	7,027	14/03/2023	6,953	14/04/2023	10,724	14/05/2023	6,809	14/06/2023	6,316	14/07/2023	6,020	14/08/2023	10,473
15/01/2023	6,748	15/02/2023	7,338	15/03/2023	6,774	15/04/2023	9,183	15/05/2023	6,409	15/06/2023	6,326	15/07/2023	6,166	15/08/2023	8,761
16/01/2023	6,416	16/02/2023	6,803	16/03/2023	6,284	16/04/2023	7,692	16/05/2023	6,360	16/06/2023	6,453	16/07/2023	10,833	16/08/2023	8,195
17/01/2023	5,952	17/02/2023	6,240	17/03/2023	5,618	17/04/2023	7,636	17/05/2023	9,428	17/06/2023	6,170	17/07/2023	9,332	17/08/2023	7,526
18/01/2023	6,302	18/02/2023	6,780	18/03/2023	6,102	18/04/2023	7,089	18/05/2023	8,055	18/06/2023	6,745	18/07/2023	7,223	18/08/2023	7,633
19/01/2023	6,947	19/02/2023	7,032	19/03/2023	6,187	19/04/2023	7,048	19/05/2023	7,644	19/06/2023	6,228	19/07/2023	7,086	19/08/2023	7,429
20/01/2023	8,082	20/02/2023	6,206	20/03/2023	5,608	20/04/2023	8,198	20/05/2023	7,580	20/06/2023	6,054	20/07/2023	6,726	20/08/2023	7,272
21/01/2023	7,781	21/02/2023	7,313	21/03/2023	5,424	21/04/2023	7,755	21/05/2023	7,438	21/06/2023	6,370	21/07/2023	6,928	21/08/2023	6,879
22/01/2023	7,332	22/02/2023	8,744	22/03/2023	5,600	22/04/2023	8,152	22/05/2023	7,006	22/06/2023	6,203	22/07/2023	7,076	22/08/2023	6,635
23/01/2023	7,238	23/02/2023	7,246	23/03/2023	9,242	23/04/2023	7,996	23/05/2023	6,902	23/06/2023	6,710	23/07/2023	7,263	23/08/2023	5,992
24/01/2023	6,892	24/02/2023	7,195	24/03/2023	7,143	24/04/2023	7,744	24/05/2023	6,685	24/06/2023	6,779	24/07/2023	11,748	24/08/2023	6,537
25/01/2023	6,328	25/02/2023	6,651	25/03/2023	7,045	25/04/2023	7,643	25/05/2023	6,351	25/06/2023	6,773	25/07/2023	7,997	25/08/2023	6,615
26/01/2023	8,259	26/02/2023	6,501	26/03/2023	7,115	26/04/2023	6,672	26/05/2023	10,259	26/06/2023	6,121	26/07/2023	7,376	26/08/2023	6,861
27/01/2023	7,890	27/02/2023	6,347	27/03/2023	9,343	27/04/2023	6,808	27/05/2023	8,267	27/06/2023	5,747	27/07/2023	7,114	27/08/2023	6,983
28/01/2023	7,357	28/02/2023	6,538	28/03/2023	8,178	28/04/2023	6,749	28/05/2023	7,715	28/06/2023	5,936	28/07/2023	7,039	28/08/2023	6,587
29/01/2023	6,861			29/03/2023	7,928	29/04/2023	7,316	29/05/2023	7,199	29/06/2023	6,487	29/07/2023	7,254	29/08/2023	6,078
30/01/2023	7,336			30/03/2023	7,212	30/04/2023	7,946	30/05/2023	6,573	30/06/2023	5,961	30/07/2023	7,407	30/08/2023	6,370
31/01/2023	7,343			31/03/2023	7,122			31/05/2023	6,326			31/07/2023	6,932	31/08/2023	6,551

EPL No 1942 - Summary of non-compliant data				
Date	Parameter	Result	Cause	Action taken
11/01/2023	Ammonia	Exceeded 100 th percentile limit of 30 mg/l. Measured as 37.3 mg/L.	Cause is unknown but foaming from the clarifier outlet pit suggests that a surfactant may have been dumped during the holiday period.	Plant operations are currently being stabilised after reseeded of the aeration basin with biomass