

## 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 2022 – 31 December 2022

**Publishing Date:** 17 January 2023

### 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)
<b>100 percentile</b>			30	10	6.5 - 8.5	-	-
<b>100 percentile</b>			20	<5	7.4	-	-
Collected	Obtained	Published	BOD (mg/L)	O&G (mg/L)	pH	TSS (mg/L)	Ammonia
4 January 2022	16 January 2022	22 January 2022	9	<5	7.3	8	13.8
16 January 2022	28 January 2022	5 February 2022	10	<5	7.2	7	4.67
28 January 2022	9 February 2022	14 February 2022	16	<5	6.9	8	4.61
9 February 2022	18 February 2022	23 February 2022	9	<5	7.0	9	3.50
21 February 2022	3 March 2022	15 March 2022	11	<5	7.3	18	9.55
5 March 2022	18 March 2022	23 March 2022	3	<5	7.0	5	0.57
17 March 2022	28 March 2022	2 April 2022	2	<5	7.1	<2	1.28
29 March 2022	6 April 2022	11 April 2022	5	<5	7.1	2	1.62
10 April 2022	20 April 2022	27 April 2022	6	<5	7.2	9	2.62
22 April 2022	10 May 2022	15 May 2022	4	<5	7.1	<2	3.48
4 May 2022	19 May 2022	26 May 2022	6	<5	7.0	6	2.94
16 May 2022	30 May 2022	6 June 2022	<2	<5	7.2	3	1.10
28 May 2022	15 June 2022	20 June 2022	<2	<5	7.0	4	0.52
9 June 2022	26 June 2022	30 June 2022	13	<5	7.0	4	3.16
21 June 2022	1 July 2022	6 July 2022	4	<5	7.1	<2	6.04
3 July 2022	18 July 2022	23 July 2022	7	<5	7.2	3	8.20
15 July 2022	27 July 2022	4 August 2022	5	<5	7.2	2	5.09
27 July 2022	9 August 2022	15 August 2022	7	<5	7.2	<2	6.74
8 August 2022	24 August 2022	31 August 2022	7	<5	7.2	<2	6.07
20 August 2022	1 September 2022	6 September 2022	5	<5	7.0	<2	4.77
1 September 2022	12 September 2022	17 September 2022	8	<5	7.1	<2	12.70
13 September 2022	23 September 2022	1 October 2022	9	<10	7.5	<2	12.90
25 September 2022	10 October 2022	15 October 2022	7	<5	7.3	<2	5.47
7 October 2022	17 October 2022	23 October 2022	7	<5	7.2	<2	8.51
19 October 2022	31 October 2022	5 November 2022	6	<5	7.1	<2	2.75
31 October 2022	9 November 2022	14 November 2022	4	<5	7.2	<2	4.60
12 November 2022	21 November 2022	26 November 2022	9	<5	7.1	5	4.09
24 November 2022	1 December 2022	6 December 2022	11	<5	7.4	2	16.60
6 December 2022	20 December 2022	25 December 2022	9	<5	7.3	2	12.3
19 December 2022	3 January 2023	8 January 2023	5	<5	7.2	3	7.91
30 December 2022	6 January 2023	11 January 2023	20	<5	7.7	4	40.0

< : 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  
**Location of Pollution Monitoring Point:**  
 Shelly Beach (Lic Pt 5), Toowoan Bay (Lic Pt 6), Blue Bay (Lic Pt 7)  
 and Blue Lagoon (Lic Pt 8)  
**Publishing Date:** 17 January 2023

**EPL No. 1942** – Bateau Bay Sewage Treatment System  
**Licence Period:** 1 January 2022 – 31 December 2022

### 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)
4 January 2022	10 January 2022	15 January 2022	4	<1	3	<1	<1	-4	2	-6
6 January 2022	11 January 2022	16 January 2022	3	<1	5	<1	1	-3	2	-4
11 January 2022	16 January 2022	22 January 2022	3	-1	5	-3	1	<1	13	-4
18 January 2022	23 January 2022	31 January 2022	20	-7	7	-1	<1	-3	9	-6
25 January 2022	1 February 2022	7 February 2022	1	<1	<1	-1	<1	<1	1	<1
3 February 2022	7 February 2022	13 February 2022	3	-1	3	-5	2	-1	53	-4
8 February 2022	14 February 2022	19 February 2022	1	<1	<1	-6	<1	-1	2	<1
15 February 2022	18 February 2022	23 February 2022	5	<1	<1	-3	4	-1	5	20
22 February 2022	24 February 2022	3 March 2022	1	<1	14	16	1	<1	2	<1
1 March 2022	3 March 2022	12 March 2022	-71	83	340	-170	58	85	270	190
8 March 2022	11 March 2022	20 March 2022	49	230	2000	1000	36	-100	38	130
15 March 2022	18 March 2022	23 March 2022	33	41	15	12	15	-2	20	-9
22 March 2022	28 March 2022	2 April 2022	<1	-2	<1	-1	<1	-1	3	-1
29 March 2022	4 April 2022	9 April 2022	31	-11	55	83	-66	55	9	-6
5 April 2022	8 April 2022	13 April 2022	10	-6	1	-2	2	-1	2	-2
7 April 2022	11 April 2022	27 April 2022	6	-4	14	11	17	22	9	-1
12 April 2022	19 April 2022	27 April 2022	39	46	30	23	35	18	29	20
19 April 2022	22 April 2022	27 April 2022	-81	-6	4	-2	1	-2	38	19
26 April 2022	2 May 2022	14 May 2022	5	-3	1	-3	2	-1	5	-2
3 May 2022	6 May 2022	14 May 2022	4	-4	3	-7	<1	<1	28	-4
10 May 2022	13 May 2022	25 May 2022	14	-4	47	34	2	-3	4	<1
17 May 2022	23 May 2022	30 May 2022	14	11	3	-2	4	-6	28	-7
24 May 2022	27 May 2022	5 June 2022	29	50	28	40	-63	100	3	-8
31 May 2022	6 June 2022	11 June 2022	<1	<1	45	60	56	-4	2	-9
7 June 2022	14 June 2022	20 June 2022	<1	<1	<1	<1	<1	<1	1	<1
9 June 2022	14 June 2022	20 June 2022	<1	<1	1	-3	<1	<1	<1	<1
14 June 2022	20 June 2022	25 June 2022	13	18	9	-6	7	-6	7	-110
21 June 2022	24 June 2022	30 June 2022	<1	<1	3	<1	4	-1	1	<1
28 June 2022	1 July 2022	6 July 2022	1	-3	9	12	2	-6	<1	<1
7 July 2022	11 July 2022	16 July 2022	410	540	300	580	360	460	430	580
12 July 2022	15 July 2022	23 July 2022	17	12	10	13	11	-12	12	15
19 July 2022	22 July 2022	1 August 2022	1	-5	1	-3	2	-9	<1	<1
26 July 2022	9 August 2022	15 August 2022	6	-3	1	<1	15	-4	<1	-3
9 August 2022	15 August 2022	20 August 2022	3	-1	1	10	<1	<1	2	-1
16 August 2022	19 August 2022	27 August 2022	<1	<1	<1	<1	<1	<1	<1	-4
23 August 2022	25 August 2022	1 September 2022	<1	-2	<1	<1	<1	<1	<1	<1
30 August 2022	6 September 2022	11 September 2022	<1	<1	<1	-3	<1	<1	<1	<1
6 September 2022	12 September 2022	17 September 2022	<1	-1	<1	<1	<1	<1	<1	-1
8 September 2022	14 September 2022	19 September 2022	32	-2	<1	<1	<1	<1	36	-5
13 September 2022	16 September 2022	24 September 2022	2	<1	1	<1	<1	<1	1	<1
20 September 2022	26 September 2022	1 October 2022	<1	-2	<1	<1	<1	<1	1	-1
27 September 2022	30 September 2022	5 October 2022	1	-2	1	<1	1	<1	<1	<1
4 October 2022	7 October 2022	13 October 2022	3	-2	<1	<1	3	-1	2	-2
6 October 2022	10 October 2022	15 October 2022	2	-6	10	-4	2	-2	2	-10
11 October 2022	17 October 2022	23 October 2022	22	-10	17	-6	14	18	16	10
18 October 2022	21 October 2022	26 October 2022	1	-1	1	-4	1	<1	<1	<1
25 October 2022	28 October 2022	3 November 2022	20	-5	1	-5	5	-5	3	-6
1 November 2022	4 November 2022	9 November 2022	4	-2	<1	<1	2	-1	2	-2
8 November 2022	11 November 2022	16 November 2022	1	-1	<1	<1	<1	-2	1	-2
15 November 2022	19 November 2022	25 November 2022	<1	-1	<1	<1	<1	<1	<1	-1
29 November 2022	5 December 2022	11 December 2022	<1	<1	2	-4	1	-1	2	<1
6 December 2022	13 December 2022	18 December 2022	32	10	6	-4	14	-7	13	10
8 December 2022	14 December 2022	19 December 2022	14	-9	1	<1	3	<1	1	-1
13 December 2022	19 December 2022	24 December 2022	<1	<1	3	-2	3	<1	3	<1
20 December 2022	28 December 2022	3 January 2023	<1	-5	2	26	<1	<1	17	-8
27 December 2022	5 January 2023	10 January 2023	8	63	31	52	6	<1	13	-1

< : 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 2022 – 31 December 2022

**Publishing Date:** 17 January 2023

### 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
<b>Unit</b>	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
<b>No. Samples Collected</b>																										
<b>Minimum value</b>																										
<b>Mean value</b>																										
<b>Median value</b>																										
<b>Maximum value</b>																										
<b>Limit of laboratory detection</b>	0.01	0.1	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	0.1	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	
28/01/2022	09/02/2022	28/02/2022	<0.01	0.7	<0.1	<0.01	0.5	8.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	<0.3	<0.01	1.8	0.2	<0.1	38	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
22/04/2022	10/05/2022	15/05/2022	<0.01	2.2	<0.1	<0.01	0.4	4.9	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	<0.3	<0.01	1.7	0.2	<0.1	34	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
09/04/2022	24/06/2022	30/06/2022	<0.01	0.9	<0.1	<0.01	0.4	6.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	<0.3	<0.01	1.2	0.2	<0.1	35	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
13/09/2022	23/09/2022	01/10/2022	<0.01	0.8	<0.1	<0.01	0.4	3.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	<0.3	<0.01	1.4	0.2	<0.1	25	<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 2022 – 31 December 2022

Publishing Date: 17 January 2023

**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)
1/01/2022	7,680	1/02/2022	6,378	1/03/2022	14,934	1/04/2022	16,946	1/05/2022	9,693	1/06/2022	8,092	1/07/2022	8,243	1/08/2022	7,968
2/01/2022	7,378	2/02/2022	8,026	2/03/2022	29,155	2/04/2022	13,063	2/05/2022	8,797	2/06/2022	7,927	2/07/2022	13,544	2/08/2022	7,998
3/01/2022	7,509	3/02/2022	7,276	3/03/2022	31,154	3/04/2022	12,267	3/05/2022	8,808	3/06/2022	7,955	3/07/2022	40,222	3/08/2022	7,710
4/01/2022	6,908	4/02/2022	9,234	4/03/2022	25,882	4/04/2022	10,151	4/05/2022	8,375	4/06/2022	8,458	4/07/2022	34,242	4/08/2022	7,738
5/01/2022	8,397	5/02/2022	8,011	5/03/2022	26,420	5/04/2022	9,309	5/05/2022	8,659	5/06/2022	8,237	5/07/2022	53,149	5/08/2022	7,925
6/01/2022	8,049	6/02/2022	9,053	6/03/2022	27,200	6/04/2022	9,241	6/05/2022	8,592	6/06/2022	7,698	6/07/2022	52,563	6/08/2022	8,291
7/01/2022	7,136	7/02/2022	10,527	7/03/2022	18,352	7/04/2022	32,161	7/05/2022	8,534	7/06/2022	7,412	7/07/2022	40,685	7/08/2022	8,176
8/01/2022	10,481	8/02/2022	8,540	8/03/2022	38,314	8/04/2022	26,105	8/05/2022	8,451	8/06/2022	7,507	8/07/2022	39,476	8/08/2022	7,041
9/01/2022	8,605	9/02/2022	7,746	9/03/2022	18,096	9/04/2022	17,010	9/05/2022	8,555	9/06/2022	7,470	9/07/2022	18,590	9/08/2022	6,983
10/01/2022	8,091	10/02/2022	6,991	10/03/2022	14,390	10/04/2022	13,248	10/05/2022	17,289	10/06/2022	7,651	10/07/2022	20,692	10/08/2022	7,517
11/01/2022	6,869	11/02/2022	11,107	11/03/2022	11,129	11/04/2022	11,360	11/05/2022	14,287	11/06/2022	8,149	11/07/2022	14,695	11/08/2022	7,549
12/01/2022	6,690	12/02/2022	8,848	12/03/2022	10,092	12/04/2022	11,647	12/05/2022	14,718	12/06/2022	7,920	12/07/2022	11,958	12/08/2022	7,627
13/01/2022	6,549	13/02/2022	8,016	13/03/2022	9,488	13/04/2022	35,672	13/05/2022	15,569	13/06/2022	8,305	13/07/2022	11,389	13/08/2022	8,473
14/01/2022	6,500	14/02/2022	7,387	14/03/2022	9,204	14/04/2022	16,818	14/05/2022	11,906	14/06/2022	7,676	14/07/2022	15,569	14/08/2022	8,156
15/01/2022	6,967	15/02/2022	6,416	15/03/2022	9,038	15/04/2022	13,195	15/05/2022	10,565	15/06/2022	7,551	15/07/2022	11,535	15/08/2022	7,752
16/01/2022	6,807	16/02/2022	6,045	16/03/2022	12,390	16/04/2022	11,555	16/05/2022	9,476	16/06/2022	6,998	16/07/2022	10,470	16/08/2022	7,349
17/01/2022	6,826	17/02/2022	6,624	17/03/2022	9,577	17/04/2022	10,958	17/05/2022	8,834	17/06/2022	6,894	17/07/2022	10,231	17/08/2022	6,825
18/01/2022	6,880	18/02/2022	6,426	18/03/2022	8,703	18/04/2022	10,569	18/05/2022	8,519	18/06/2022	8,498	18/07/2022	9,289	18/08/2022	6,988
19/01/2022	8,882	19/02/2022	6,521	19/03/2022	16,148	19/04/2022	10,101	19/05/2022	8,254	19/06/2022	8,649	19/07/2022	11,812	19/08/2022	6,961
20/01/2022	7,440	20/02/2022	6,782	20/03/2022	10,675	20/04/2022	9,603	20/05/2022	8,205	20/06/2022	8,459	20/07/2022	10,529	20/08/2022	7,678
21/01/2022	7,422	21/02/2022	6,195	21/03/2022	8,702	21/04/2022	9,217	21/05/2022	8,232	21/06/2022	7,819	21/07/2022	11,889	21/08/2022	7,721
22/01/2022	7,076	22/02/2022	11,316	22/03/2022	8,571	22/04/2022	14,310	22/05/2022	10,952	22/06/2022	7,673	22/07/2022	11,469	22/08/2022	7,213
23/01/2022	7,362	23/02/2022	25,300	23/03/2022	8,161	23/04/2022	11,718	23/05/2022	15,021	23/06/2022	7,460	23/07/2022	10,772	23/08/2022	8,288
24/01/2022	7,202	24/02/2022	22,067	24/03/2022	14,780	24/04/2022	10,079	24/05/2022	25,904	24/06/2022	7,376	24/07/2022	10,000	24/08/2022	7,785
25/01/2022	6,751	25/02/2022	30,041	25/03/2022	17,712	25/04/2022	11,230	25/05/2022	12,140	25/06/2022	7,690	25/07/2022	9,765	25/08/2022	7,343
26/01/2022	6,700	26/02/2022	20,569	26/03/2022	14,468	26/04/2022	11,022	26/05/2022	10,419	26/06/2022	7,583	26/07/2022	8,687	26/08/2022	8,412
27/01/2022	6,373	27/02/2022	15,232	27/03/2022	14,769	27/04/2022	9,883	27/05/2022	9,700	27/06/2022	7,338	27/07/2022	8,852	27/08/2022	9,333
28/01/2022	6,212	28/02/2022	13,578	28/03/2022	12,002	28/04/2022	11,043	28/05/2022	9,525	28/06/2022	7,774	28/07/2022	8,507	28/08/2022	8,488
29/01/2022	6,519			29/03/2022	28,860	29/04/2022	10,115	29/05/2022	9,549	29/06/2022	7,627	29/07/2022	8,356	29/08/2022	7,861
30/01/2022	6,506			30/03/2022	34,091	30/04/2022	9,528	30/05/2022	9,063	30/06/2022	7,310	30/07/2022	7,645	30/08/2022	7,738
31/01/2022	6,038			31/03/2022	33,865			31/05/2022	8,358			31/07/2022	8,039	31/08/2022	8,237



EPL No 1942 - Summary of non-compliant data				
Date	Parameter	Result	Cause	Action taken
3 July 2022	Flow (greater than 36 kL)	40,222 kL	Stormwater inflow	Management of inflow from STP catchment
5-8 July 2022	Flow (greater than 36 kL)	53,149 kL 52,563 kL 40,685 kL 39,476 kL	Stormwater inflow	Management of inflow from STP catchment
30-December 2022	Greater than 30mg/L	40.0 mg/L	Process disruption during the holiday period	Investigate the stabilisation process at the STP