

POLLUTION MONITORING DATA

Licensee: Central Coast Council, PO Box 21 Gosford NSW 2250
Location of Pollution Monitoring Point: Ocean outfall tunnel, combined treated effluent from Kincumber and Woy Woy sewage treatment plants
Publishing Date: 30 June 2022

EPL No. 1802– Kincumber Sewage Treatment Plant
Licence Period: 1 June 2021 - 31 May 2022

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)	Total Nitrogen (TN) (mg/L)	Total Phosphorus (TP) (mg/L)	Total Suspended Solids (TSS) (mg/L)	pH
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CONCENTRATION LIMITS

100 percentile	30	10	-	-	65	6.5 - 8.5
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POLLUTION MONITORING DATA SUMMARY (provided at end of annual reporting period)

100 percentile	31	<5	-	-	210	7.3 -7.7
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Collected	Obtained	Published	BOD (mg/L)	O&G (mg/L)	TN (mg/L)	TP (mg/L)	TSS (mg/L)	pH
6 June 2021	18 June 2021	24 June 2021	8	<5	8.1	0.47	13	7.6
16 June 2021	2 July 2021	8 July 2021	<2	<5	9.47	0.8	8	7.5
28 June 2021	7 July 2021	10 July 2021	<2	<5	14.6	0.57	5	7.4
10 July 2021	20 July 2021	22 July 2021	<2	<5	10.2	0.96	5	7.5
22 July 2021	2 August 2021	5 August 2021	<2	<5	7.83	0.67	4	7.5
3 August 2021	10 August 2021	15 August 2021	<2	<5	5.84	0.88	5	7.6
15 August 2021	25 August 2021	30 August 2021	<2	<5	4.74	1.56	4	7.6
27 August 2021	7 September 2021	11 September 2021	<2	<5	9.33	1.44	4	7.4
08 September 2021	17 September 2021	23 September 2021	<2	<5	10	1.83	4	7.4
20 September 2021	7 October 2021	12 October 2021	<2	<5	10.1	1.86	4	7.5
2 October 2021	11 October 2021	17 October 2021	<2	<5	4.85	1.24	4	7.7
14 October 2021	26 October 2021	31 October 2021	<2	<5	11	2.26	5	7.4
26 October 2021	4 November 2021	9 November 2021	<2	<5	8.71	1.85	5	7.5
7 November 2021	17 November 2021	23 November 2021	<2	<5	13	1.81	6	7.4
19 November 2021	7 December 2021	December 2021	<2	<5	18.1	2.11	7	7.3
1 December 2021	10 December 2021	December 2021	2	<5	13.8	1.52	6	7.3
13 December 2021	7 January 2021	14 January 2021	<2	<5	10.6	1.06	4	7.4
22 December 2021	6 January 2021	14 January 2021	<2	<5	7.73	1.7	8	7.6
4 January 2022	12 January 2022	17 January 2022	<2	<5	7.95	1.35	11	7.5
16 January 2022	27 January 2022	1 February 2022	2	<5	15.5	2.00	7	7.6
22 January 2022	2 February 2022	7 February 2022	<2	<5	4.1	1.22	8	7.6
28 January 2022	9 February 2022	14 February 2022	<2	<5	11.4	0.75	5	7.4
9 February 2022	21 February 2022	26 February 2022	<2	<5	8.68	0.64	6	7.4
21 February 2022	1 March 2022	6 March 2022	2	<5	14.1	1.20	8	7.4
5 March 2022	18 March 2022	23 March 2022	<2	<5	7.05	0.58	9	7.3
17 March 2022	27 March 2022	1 April 2022	5	<5	14.60	0.80	15	7.5
29 March 2022	5 April 2022	10 April 2022	<2	<5	7.09	0.78	17	7.4
10 April 2022	21 April 2022	26 April 2022	<2	<5	8.40	0.68	27	7.4
22 April 2022	10 May 2022	15 May 2022	<2	<5	8.15	1.19	29	7.4
4 May 2022	19 May 2022	25 May 2022	<2	<5	9.83	0.68	14	7.3
16 May 2022	25 May 2022	30 May 2022	<2	<5	6.82	0.47	6	7.5

< : 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 21 Gosford NSW 2250

EPL No. 1802– Kincumber Sewage Treatment Plant

Location of Pollution Monitoring Point: Ocean outfall tunnel, combined treated effluent from Kincumber and Woy Woy sewage treatment plants

Licence Period: 1 June 2021 – 31 May 2022

Publishing Date: 30 June 2022

COMPLIANCE STATUS

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

Unit	Aldrin	alpha-BHC	beta-BHC	Cadmium	Chlordane (cis & trans)	Chromium	Copper	Dieldrin	Endosulfan	Endrin	Gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Lead	Mercury	Methoxychlor	p,p-DDD	p,p-DDE	p,p-DDT	PCBs	Selenium	Zinc	
	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																								
Minimum value																								
Mean value																								
Median value																								
Maximum value																								
Limit of laboratory detection	0.01	0.01	0.01	0.1	0.01	0.2	0.5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.1	0.3	0.01	0.01	0.01	0.01	0.1	0.2	1	

POLLUTION MONITORING DATA RESULTS

Collected	Obtained	Published	Aldrin	alpha-BHC	beta-BHC	Cadmium	Chlordane (cis & trans)	Chromium	Copper	Dieldrin	Endosulfan	Endrin	Gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Lead	Mercury	Methoxychlor	p,p-DDD	p,p-DDE	p,p-DDT	PCBs	Selenium	Zinc
16 June 2021	2 July 2021	Dec 2021	<0.01	<0.01	<0.01	<0.01	<0.01	0.4	5.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	23
20 Sept 2021	7 Oct 2021	Dec 2021	<0.01	<0.01	<0.01	<0.01	<0.01	0.4	3.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	24
13 Dec 2021	6 Jan 2022	14 Jan 2021	<0.01	<0.01	<0.01	<0.01	<0.01	0.6	3.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	20
9 Feb 2022	18 Feb 2022	24 Feb 2022	<0.01	<0.01	<0.01	<0.01	<0.01	0.6	3.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	21
22 April 2022	10 May 2022	15 May 2022	<0.01	<0.01	<0.01	<0.01	<0.01	0.6	3.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	<0.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	15

<: 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 21 Gosford NSW 2250

EPL No. 1802– Kincumber Sewage Treatment Plant

Location of Monitoring Point: Discharge to ocean outfall tunnel, combined treated effluent from Kincumber and Woy Woy sewage treatment plants

Licence Period: 1 June 2021 - 31 May 2022

Publishing Date: 30 June 2022

COMPLIANCE STATUS

Licence Monitoring Frequency for flow is daily. The licence prescribes a limit of 150,000 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)
1/06/2021	44,422	1/07/2021	45,866	1/08/2021	43,070	1/09/2021	42,627	1/10/2021	36,548	1/11/2021	41,111	1/12/2021	48,978	1/01/2022	47,265
2/06/2021	43,901	2/07/2021	46,582	2/08/2021	41,871	2/09/2021	42,315	2/10/2021	41,700	2/11/2021	40,416	2/12/2021	47,858	2/01/2022	47,564
3/06/2021	44,509	3/07/2021	45,535	3/08/2021	41,612	3/09/2021	42,988	3/10/2021	39,823	3/11/2021	40,859	3/12/2021	47,087	3/01/2022	48,047
4/06/2021	45,876	4/07/2021	44,523	4/08/2021	42,371	4/09/2021	41,972	4/10/2021	41,828	4/11/2021	40,718	4/12/2021	45,272	4/01/2022	46,584
5/06/2021	45,616	5/07/2021	44,342	5/08/2021	42,304	5/09/2021	42,476	5/10/2021	41,146	5/11/2021	40,480	5/12/2021	45,916	5/01/2022	48,819
6/06/2021	44,675	6/07/2021	43,641	6/08/2021	42,602	6/09/2021	42,752	6/10/2021	40,941	6/11/2021	43,188	6/12/2021	45,170	6/01/2022	51,651
7/06/2021	44,141	7/07/2021	43,036	7/08/2021	42,814	7/09/2021	41,448	7/10/2021	40,363	7/11/2021	42,146	7/12/2021	49,769	7/01/2022	47,570
8/06/2021	44,224	8/07/2021	43,292	8/08/2021	42,185	8/09/2021	41,292	8/10/2021	40,200	8/11/2021	45,294	8/12/2021	48,916	8/01/2022	59,438
9/06/2021	46,928	9/07/2021	43,440	9/08/2021	42,851	9/09/2021	41,282	9/10/2021	41,521	9/11/2021	41,740	9/12/2021	65,218	9/01/2022	51,833
10/06/2021	44,073	10/07/2021	51,512	10/08/2021	42,389	10/09/2021	41,202	10/10/2021	40,382	10/11/2021	46,538	10/12/2021	81,656	10/01/2022	50,463
11/06/2021	50,322	11/07/2021	60,837	11/08/2021	42,518	11/09/2021	42,130	11/10/2021	42,056	11/11/2021	47,232	11/12/2021	54,187	11/01/2022	47,287
12/06/2021	45,103	12/07/2021	51,308	12/08/2021	41,361	12/09/2021	41,810	12/10/2021	41,670	12/11/2021	67,770	12/12/2021	51,557	12/01/2022	45,965
13/06/2021	44,384	13/07/2021	47,127	13/08/2021	41,925	13/09/2021	40,359	13/10/2021	52,912	13/11/2021	48,854	13/12/2021	49,855	13/01/2022	45,759
14/06/2021	45,128	14/07/2021	44,677	14/08/2021	42,478	14/09/2021	46,176	14/10/2021	126,236	14/11/2021	45,657	14/12/2021	49,114	14/01/2022	46,643
15/06/2021	43,785	15/07/2021	45,807	15/08/2021	42,230	15/09/2021	42,453	15/10/2021	46,616	15/11/2021	43,419	15/12/2021	47,593	15/01/2022	48,157
16/06/2021	40,078	16/07/2021	46,030	16/08/2021	41,714	16/09/2021	41,000	16/10/2021	45,113	16/11/2021	42,456	16/12/2021	45,749	16/01/2022	47,606
17/06/2021	44,035	17/07/2021	45,040	17/08/2021	41,469	17/09/2021	42,630	17/10/2021	44,758	17/11/2021	41,893	17/12/2021	46,057	17/01/2022	47,469
18/06/2021	43,816	18/07/2021	44,462	18/08/2021	41,562	18/09/2021	41,064	18/10/2021	44,176	18/11/2021	42,101	18/12/2021	48,058	18/01/2022	46,629
19/06/2021	44,515	19/07/2021	43,512	19/08/2021	41,516	19/09/2021	41,902	19/10/2021	42,793	19/11/2021	41,505	19/12/2021	45,884	19/01/2022	64,899
20/06/2021	49,657	20/07/2021	44,168	20/08/2021	41,903	20/09/2021	42,029	20/10/2021	42,277	20/11/2021	42,528	20/12/2021	46,788	20/01/2022	50,403
21/06/2021	48,363	21/07/2021	43,516	21/08/2021	40,572	21/09/2021	41,049	21/10/2021	43,062	21/11/2021	60,329	21/12/2021	47,085	21/01/2022	44,830
22/06/2021	46,155	22/07/2021	43,412	22/08/2021	43,270	22/09/2021	41,838	22/10/2021	42,273	22/11/2021	55,301	22/12/2021	46,231	22/01/2022	47,487
23/06/2021	44,651	23/07/2021	42,521	23/08/2021	41,931	23/09/2021	41,873	23/10/2021	43,386	23/11/2021	50,457	23/12/2021	58,621	23/01/2022	47,911
24/06/2021	43,496	24/07/2021	44,315	24/08/2021	68,232	24/09/2021	41,391	24/10/2021	42,988	24/11/2021	48,788	24/12/2021	52,623	24/01/2022	47,548
25/06/2021	45,291	25/07/2021	43,532	25/08/2021	52,790	25/09/2021	41,118	25/10/2021	42,491	25/11/2021	51,993	25/12/2021	47,799	25/01/2022	44,999
26/06/2021	44,458	26/07/2021	43,008	26/08/2021	47,791	26/09/2021	42,566	26/10/2021	41,650	26/11/2021	79,442	26/12/2021	49,235	26/01/2022	44,505
27/06/2021	44,423	27/07/2021	42,086	27/08/2021	44,939	27/09/2021	42,960	27/10/2021	41,252	27/11/2021	77,806	27/12/2021	52,459	27/01/2022	46,614
28/06/2021	43,155	28/07/2021	42,062	28/08/2021	44,542	28/09/2021	41,588	28/10/2021	41,581	28/11/2021	58,353	28/12/2021	62,313	28/01/2022	47,620
29/06/2021	47,691	29/07/2021	41,993	29/08/2021	44,010	29/09/2021	40,141	29/10/2021	49,229	29/11/2021	55,345	29/12/2021	61,105	29/01/2022	47,545
30/06/2021	47,304	30/07/2021	41,818	30/08/2021	43,736	30/09/2021	41,393	30/10/2021	41,652	30/11/2021	48,347	30/12/2021	52,580	30/01/2022	46,339
		31/07/2021	42,695	31/08/2021	43,321			31/10/2021	42,116			31/12/2021	49,681	31/01/2022	45,805

Summary of non-compliant data				
Date	Parameter	Result	Cause	Action taken
2/03/2022	Flow Greater than 150 kL	171,657	Stormwater infiltration in reticulation network	Review catchment flows to identify potential infiltration sources and locations
3/03/2022	Flow Greater than 150 kL	156,209	Stormwater infiltration in reticulation network	Review catchment flows to identify potential infiltration sources and locations
8/03/2022	Flow Greater than 150 kL	171,717	Stormwater infiltration in reticulation network	Review catchment flows to identify potential infiltration sources and locations