

Snowy Hydro 2.0 Main Works EPL Sampling: 01 - 31 January 2025

Environmental Protection Licence No:	21266
Licensee:	Snowy Hydro Limited
Licensee address:	PO Box 332, Cooma, NSW 2630
Premises:	Snowy 2.0 Pumped Hydro Power Station Talbingo and Tantangara, Kosciuszko National Park and Rock Forest, Kosciuszko NSW 2642
EPA Public Register:	https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=21266&id=21266&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued

Monthly water sampling and analysis is performed as part of the Snowy 2.0 Approval Conditions, Environmental Protection Licence No 21266 - Variation 20 December 2024, and the approved Water Management Plan to ensure that works are not impacting on nearby receiving waters.

A map showing the location of each of the EPL named sampling points is provided after the results tables.

Surface Water Results: Surface Water monitoring results indicate sporadic exceedances throughout the reporting period. These results are likely attributed to fluctuations in water levels, which influences water temperatures and reduces flow velocity across the surface water management stream. Minor exceedances in parameters like phosphorus and nutrients were observed, which are considered to be influenced by the aforementioned conditional settings. Elevated nutrient concentrations were primarily observed in leachate basin locations and will be discussed further in the dedicated leachate results section.

Reservoir Results: Minor exceedances in parameters such as phosphorus, metals, and nutrients were observed. Notwithstanding these exceedances, likely attributed to a combination of decreased water levels, high surface temperatures, elevated suspended solids that were observed during sampling. These influences are considered to have impacted results for January.

Discharge Results: As per the latest revision EPL21266, only water within discharge criteria can be released into Talbingo and Tantangara reservoirs from the final discharge points. FGJV is committed to mitigating environmental impacts, so the Environmental Team only permits discharge if all parameters are within WQO. There were no discharges during January at Talbingo and Tantangara. However, if the water met reuse criteria, the water was reused.

Groundwater Results: Throughout January 2025, pH and other such analytes exceedances were observed at both upstream and downstream monitoring locations at all three sites. The observed results are likely attributed to seasonal variation of environmental inputs (for example, an extended period of no rainfall). Minor exceedances in metals and total nitrogen concentrations were also observed, particularly near spoil emplacement areas, with higher exceedances observed downstream of the GF01 emplacement. Additional measures such as groundwater extraction and transportation for treatment, spoil emplacement permit reviews and management strategy reviews are underway. FGJV remains committed to implementing all necessary actions to minimize environmental impacts.

Leachate results: Leachate analysis revealed minor exceedances in pH, electrical conductivity (EC), dissolved oxygen (DO), and turbidity, including comprehensive analytes, these results are within expectations for locations storing such water.

The publication of this pollution monitoring data is carried out in accordance with section 66 (6) of the Protection of the Environment Operations Act 1997 (NSW).

Snowy Hydro Limited gives no warranty or representation regarding the data suitability for any particular purpose.

Snowy Hydro Limited excludes all liability to any person for loss or damage of any kind (however caused, including but not limited to by negligence) arising whether directly or indirectly from or relating in any way to the use of this data, whether in whole or in part.



Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-31 January 2025 - Talbingo and Tantangara Reservoir

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Field			
pH	pH Unit	-	6.5-8
Electrical Conductivity	µS/cm	-	20-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	1-20
Laboratory analytes			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
Inorganics			
Cyanide Total	µg/L	4	7
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 [^]
Biochemical Oxygen Demand	mg/L	2	1/5 [^]

EPL10	EPL11	EPL28	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL51	EPL107	EPL108	EPL109
15/1/25	15/1/25	19/1/25	19/1/25	19/1/25	18/1/25	18/1/25	4/1/25	19/1/25	19/1/25	4/1/25	19/1/25	19/1/25
7.62	7.97	7.76	7.1	7.52	7.63	7.53	7.29	6.95	7.1	8.16	8.17	6.97
97	79	30	25	26	38	27	22.4	26	25	49	43	85
184	177	212	241	-48	200	201	199.1	244	238	170	169	175
25.85	25.2	18.28	19.19	18.94	18.47	14.94	24.8	19.01	19.01	24.24	23.75	23.04
63.5	63.7	109.1	92.4	91.9	74.6	90	100	90	91	71.8	69.4	81.3
0	1	8.6	8.9	7.1	30.6	9.6	4.13	6.3	7.4	3.1	3.4	6.3
<5	<5	<5	<5	<5	34	<5	<5	<5	5	<5	<5	17
43	38	9	9	9	9	13	9	9	<1	17	14	14
20	50	<10	<10	40	<10	10	10	<10	<10	<10	10	<10
<10	5	<2	4	<10	8	10	4	2	<10	<2	8	<2
200	200	300	300	400	400	200	300	400	300	200	200	200
200	200	300	300	400	400	200	300	400	300	200	200	200
2	<1	4	1	4	3	3	4	4	4	5	2	2
30	<10	40	90	60	80	60	50	60	50	<10	10	<10
<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
<5	<5	30	30	30	31	27	25	30	33	6	<5	<5
0.5	0.3	0.3	0.3	0.3	0.3	<0.2	<0.2	0.3	0.3	0.2	<0.2	0.2
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
36	16	278	273	280	285	161	77	278	310	6	6	5
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2.0	<0.5	1.6	1.7	1.6	2.0	4.5	5.7	1.7	1.8	<0.5	<0.5	<0.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
590	2,700	100	-	-	-	-	-	-	80	-	-	-
<2	<2	3	-	-	-	-	-	-	<2	-	-	-

* Water Quality Objective values for Talbingo and Tantangara Reservoir refer to the default trigger values for physical and chemical stressors in south-east Australia (fresh lakes and reservoirs) for the protection of 95% of aquatic species ANZECC / ARMCANZ (2000), they are not pollutant limits imposed by EPL 21266.

** Algal blooms can present as faecal coliforms

[^] 90th percentile concentration limits / 100 percentile concentration limits

- Sample not required at this location.

Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-31 January 2025 - Surface Water

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Field			
pH	-	-	6.5-8
Electrical Conductivity	µS/cm	-	30-350
Oxidation Reduction Potential	mv	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	2-25
Laboratory analyses			
TSS	mg/L	5	No Water Quality Objective Value
Hardness as CaCO3	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	13
Nitrite + Nitrate as N (NOx)	µg/L	10	15
Nitrate as N (NO3)	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	250
Reactive Phosphorus	µg/L	1	15
Phosphorus (Total)	µg/L	10	20
Inorganics			
Cyanide Total	µg/L	4	4
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (total)	µg/L	5	No Water Quality Objective Value
Aluminium (dissolved)	µg/L	5	27
Arsenic (total)	µg/L	0.2	No Water Quality Objective Value
Arsenic (dissolved)	µg/L	0.2	0.8
Chromium (III+VI) (total)	µg/L	0.2	No Water Quality Objective Value
Chromium (III+VI) (dissolved)	µg/L	0.2	0.01
Copper (total)	µg/L	0.5	No Water Quality Objective Value
Copper (dissolved)	µg/L	0.5	1
Iron (total)	µg/L	2	No Water Quality Objective Value
Iron (dissolved)	µg/L	2	300
Lead (total)	µg/L	0.1	No Water Quality Objective Value
Lead (dissolved)	µg/L	0.1	1
Manganese (total)	µg/L	0.5	No Water Quality Objective Value
Manganese (dissolved)	µg/L	0.5	1,200
Nickel (total)	µg/L	0.5	No Water Quality Objective Value
Nickel (dissolved)	µg/L	0.5	8
Silver (total)	µg/L	0.01	No Water Quality Objective Value
Silver (dissolved)	µg/L	0.01	0.02
Zinc (total)	µg/L	1	No Water Quality Objective Value
Zinc (dissolved)	µg/L	1	2.4

EPL5	EPL6	EPL8	EPL9	EPL12	EPL14	EPL15	EPL16	EPL24	EPL26	EPL27	EPL30	EPL31	EPL33	EPL34	EPL35	EPL36	EPL37	EPL52	EPL53	EPL54	EPL55	EPL67	EPL71	EPL84	EPL85	EPL86	EPL98	EPL99	EPL100	EPL101	EPL106	EPL110	EPL118	EPL120	EPL122	
4/01/25	4/01/25	4/01/25	4/01/25	4/01/25	4/01/25	4/01/25	4/01/25	3/01/25	12/01/25	12/01/25	18/01/25	18/01/25	18/01/25	18/01/25	18/01/25	26/01/25	26/01/25	13/01/25	Dry	Dry	Dry	Dry	Dry	13/01/25	Dry	Dry	Dry	17/01/25	17/01/25	17/01/25	11/12/25	Dry	Dry	Dry	Dry	
8.16	7.72	7.78	7.96	8.01	7.62	7.62	8.28	7.68	7.51	7.81	7.36	7.19	7.32	7.67	7.16	6.96	7.01	8.98	Dry	Dry	Dry	Dry	Dry	8.33	Dry	Dry	Dry	9.14	8.33	8.44	8.41	Dry	Dry	Dry	Dry	
136	118	146	141	138	135	136	140	1220	42	42	39	28	28	30	28	50	53	1250	Dry	Dry	Dry	Dry	Dry	1440	Dry	Dry	Dry	220	538	670	1150	Dry	Dry	Dry	Dry	
141	163	164	153	153	170	172	97	70	158	192	208	212	206	193	195	162	185	-15	Dry	Dry	Dry	Dry	Dry	151	Dry	Dry	Dry	38	88	88	83	Dry	Dry	Dry	Dry	
19.63	18.53	21.35	21.64	19.66	19.83	20.61	22.21	18.52	12.45	13.32	12.32	12.17	14.26	12.98	12.09	23	28.32	25.56	Dry	Dry	Dry	Dry	Dry	20.19	Dry	Dry	Dry	14.62	15.73	13.42	23.1	Dry	Dry	Dry	Dry	
86.5	84.7	85.7	85.7	97.1	70.9	84.9	79.9	51.3	63.4	57.2	85.8	81	80.6	93.8	94.5	69.3	71.6	94.8	Dry	Dry	Dry	Dry	Dry	69.1	Dry	Dry	Dry	70.1	77.6	78.9	100.8	Dry	Dry	Dry	Dry	
0.54	2	9.7	7.7	0.6	4.9	1.1	1.2	0.4	3.7	10.4	15.4	0	5.7	0	0	7.6	38.5	17.6	Dry	Dry	Dry	Dry	Dry	863	Dry	Dry	Dry	350	59.3	80	15.3	Dry	Dry	Dry	Dry	
<5	<5	<5	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	7	<5	<5	<5	8	11	Dry	Dry	Dry	Dry	Dry	322	Dry	Dry	Dry	142	28	45	<5	Dry	Dry	Dry	Dry	
71	62	77	72	71	71	71	71	392	18	18	16	13	9	13	13	20	20	355	Dry	Dry	Dry	Dry	Dry	21	Dry	Dry	Dry	90	188	243	327	Dry	Dry	Dry	Dry	
<10	<10	<10	<10	10	<10	<10	10	<10	10	<10	30	20	<10	<10	20	10	20	20	Dry	Dry	Dry	Dry	Dry	390	Dry	Dry	Dry	560	30	30	20	Dry	Dry	Dry	Dry	
10	<10	70	4	6	4	7	6	34,600	10	6	10	<2	<10	7	4	20	4	26,900	Dry	Dry	Dry	Dry	Dry	10,500	Dry	Dry	Dry	2,880	17,500	30,600	18,100	Dry	Dry	Dry	Dry	
<100	<100	200	100	100	<100	100	<100	3,100	200	100	100	200	400	300	200	400	3,200	200	Dry	Dry	Dry	Dry	Dry	2,600	Dry	Dry	Dry	1,100	3,100	5,400	<100	Dry	Dry	Dry	Dry	
<100	<100	300	100	100	<100	100	<100	37,700	200	100	100	200	400	300	200	200	400	30,100	Dry	Dry	Dry	Dry	Dry	13,100	Dry	Dry	Dry	3,200	20,900	36,000	18,200	Dry	Dry	Dry	Dry	
4	6	6	4	4	3	3	5	2	4	6	6	6	<1	2	1	7	9	2	Dry	Dry	Dry	Dry	Dry	15	Dry	Dry	11	2	5	6	Dry	Dry	Dry	Dry		
<10	10	10	30	10	50	30	30	30	40	10	40	40	80	70	80	30	20	40	Dry	Dry	Dry	Dry	Dry	330	Dry	Dry	Dry	70	80	100	20	Dry	Dry	Dry	Dry	
<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	Dry	Dry	Dry	Dry	Dry	<4	Dry	Dry	Dry	<4	<4	<4	<4	Dry	Dry	Dry	Dry	
<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	Dry	Dry	Dry	Dry	Dry	<1.0	Dry	Dry	Dry	<1.0	<1.0	<1.0	<1.0	Dry	Dry	Dry	Dry	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	Dry	Dry	Dry	Dry	Dry	-	-	-	-	-	-	-	-	-	-	-	-	
<5	<5	<5	<5	<5	<5	<5	<5	8	7	30	13	22	23	22	20	54	13	Dry	Dry	Dry	Dry	Dry	Dry	59	Dry	Dry	Dry	52	61	55	<5	Dry	Dry	Dry	Dry	
0.5	0.3	0.5	0.5	0.5	0.5	0.5	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	0.4	0.6	5.6	Dry	Dry	Dry	Dry	Dry	11.3	Dry	Dry	Dry	1.6	2.3	3.6	2.1	Dry	Dry	Dry	Dry	
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.6	Dry	Dry	Dry	Dry	Dry	-	-	-	-	-	-	-	-	-	-	-	-	
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	Dry	Dry	Dry	Dry	Dry	1.3	Dry	Dry	Dry	<0.5	0.8	1.2	<0.5	Dry	Dry	Dry	Dry	
4	11	7	8	4	5	6	4	<2	67	50	63	44	242	180	182	316	380	<2	Dry	Dry	Dry	Dry	Dry	17	Dry	Dry	Dry	2	<2	<2	<2	Dry	Dry	Dry	Dry	
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Dry	Dry	Dry	Dry	Dry	<0.1	Dry	Dry	Dry	<0.1	<0.1	<0.1	<0.1	Dry	Dry	Dry	Dry
1.1	4.8	1.4	4.0	0.8	1.2	1.5	2.2	300	8.2	2.7	4.5	2.3	1.4	4.6	5.7	37.0	1.9	2.4	Dry	Dry	Dry	Dry	Dry	<0.5	Dry	Dry	Dry	3.6	8.9	5.2	0.9	Dry	Dry	Dry	Dry	
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	Dry	Dry	Dry	Dry	Dry	0.6	Dry	Dry	Dry	<0.5	0.9	0.9	2.2	Dry	Dry	Dry	Dry	
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	Dry	Dry	Dry	Dry	Dry	<0.01	Dry	Dry	Dry	<0.01	<0.01	<0.01	<0.01	Dry	Dry	Dry	Dry
<1	<1	<1	<1	<1	<1	<1	<1	10	<1	<1	<1	<1	<1	<1	<1	5	<1	1	Dry	Dry	Dry	Dry	Dry	<1	Dry	Dry	Dry	<1	<1	<1	<1	Dry	Dry	Dry	Dry	

* Water Quality Objective values for surface water refer to the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) for the protection of 99% of aquatic species ANZECC / ARMCANZ (2018), they are not pollutant limits imposed by EPL 21266.
- Samples not required



Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-31 January 2025 - Discharge Water

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Flow Rate			
Inflow [#]	ML/day	-	-
Outflow [#]	ML/day	-	4.32 (EPL 43 / 50)
Field			
pH	pH Unit	-	6.5-8.5
Electrical Conductivity	µS/cm	-	700 (EPL 41) / 200 (EPL 50)
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	15
Dissolved Oxygen	% saturation	-	No Water Quality Objective Value
Turbidity	NTU	-	<25
Laboratory analytes			
Total suspended solids	mg/L	5	5/10
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	200/2000 [^]
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- [^]
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 [^]
Inorganics			
Cyanide Total	µg/L	4	No Water Quality Objective Value
Hydrocarbons			
Oil and Grease	mg/L	1	2/5 [^]
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 [^]
Biological Oxygen Demand	mg/L	2	5

	EPL 41	EPL 43	EPL 44	EPL 45	EPL 47	EPL 48	EPL 49	EPL 50
22/01/2025								22/01/2024
-	0.0000	0.3858	0.0478	0.2103	0.0889	0.7156	-	-
-	-	-	-	-	-	-	-	-
6.92	-	-	-	-	-	-	-	7.44
161	-	-	-	-	-	-	-	60.7
170	-	-	-	-	-	-	-	176.5
25.46	-	-	-	-	-	-	-	20.4
63.1	-	-	-	-	-	-	-	87.2
20	-	-	-	-	-	-	-	22.49
<5	-	-	-	-	-	-	-	<5
<1	-	-	-	-	-	-	-	<1
3,030	-	-	-	-	-	-	-	200
310	-	-	-	-	-	-	-	220
5,200	-	-	-	-	-	-	-	600
5,500	-	-	-	-	-	-	-	800
<1	-	-	-	-	-	-	-	<1
10	-	-	-	-	-	-	-	20
<4	-	-	-	-	-	-	-	<4
<1.0	-	-	-	-	-	-	-	<1.0
6	-	-	-	-	-	-	-	<5
<0.2	-	-	-	-	-	-	-	<0.2
<0.2	-	-	-	-	-	-	-	<0.2
<0.5	-	-	-	-	-	-	-	<0.5
<2	-	-	-	-	-	-	-	<2
<0.1	-	-	-	-	-	-	-	<0.1
<0.5	-	-	-	-	-	-	-	1.1
<0.5	-	-	-	-	-	-	-	<0.5
<0.01	-	-	-	-	-	-	-	<0.01
<1	-	-	-	-	-	-	-	1
<1	-	-	-	-	-	-	-	<1
<2	-	-	-	-	-	-	-	<2

Note: Treated water was not being discharged at Talbingo Reservoir at the time of EPL sampling.

There is no 100th percentile limit for Nitrogen (Total).

* Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

- Samples not required

[^] 90 Percentile concentration limit/100 Percentile limit

[#] Inflows to STP and CWTP do not directly correspond to outflow at RO as much of the water is reused on site



Snowy Hydro 2.0 Main Works EPL Sampling: 01 - 28 February 2025

Environmental Protection Licence No:	21266
Licensee:	Snowy Hydro Limited
Licensee address:	PO Box 332, Cooma, NSW 2630
Premises:	Snowy 2.0 Pumped Hydro Power Station Talbingo and Tantangara, Kosciuszko National Park and Rock Forest, Kosciuszko NSW 2642
EPA Public Register:	https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=21266&id=21266&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued

Monthly water sampling and analysis is performed as part of the Snowy 2.0 Approval Conditions, Environmental Protection Licence No 21266 - Variation 20 December 2024, and the approved Water Management Plan to ensure that works are not impacting on nearby receiving waters.

A map showing the location of each of the EPL named sampling points is provided after the results tables.

Surface Water Results: Surface water results during this period reflect the fluctuating weather conditions recorded throughout the reporting period. Over 100 mm of rainfall was reported across the Project sites throughout the reporting period, which typically results in elevated turbidity and EC concentrations and alterations to pH records. Water reuse for dust suppression is observed to be captured by the numerous basins across the Project.

Reservoir Results: The elevated temperatures and fluctuating water levels in the reservoir water bodies could present as the key drivers for the green discoloration and notable algae decomposition present during sampling. The resulting reduction in DO %, elevated EC and coliform units are possibly reflections of such influence.

Discharge Results: No discharge from either points was recorded during February.

Groundwater Results: Elevated water temperatures were observed throughout Lobs Hole and Tantangara during the reporting period, which was typically accompanied by lower DO%, elevated EC and elevated turbidity readings. Rainfall volumes recorded during the reporting period are anticipated to have influenced the elevated turbidity and EC observations. Elevated turbidity observations are anticipated to reduce following maintenance works soon to be actioned. Additional measures such as groundwater extraction pumps are in place at Tantangara with 4 bore pumps scheduled for installation at Lobs Hole imminently.

Leachate results: Consistent with the function of engineered containment systems, elevated concentrations of analytes are observed within leachate basins throughout the reporting period. These systems are subject to weekly inspections, which are conducted through our digital inspection system.

The publication of this pollution monitoring data is carried out in accordance with section 66 (6) of the Protection of the Environment Operations Act 1997 (NSW).

Snowy Hydro Limited gives no warranty or representation regarding the data suitability for any particular purpose.

Snowy Hydro Limited excludes all liability to any person for loss or damage of any kind (however caused, including but not limited to by negligence) arising whether directly or indirectly from or relating in any way to the use of this data, whether in whole or in part.

Snowy Hydro 2.0 Main Works

Monthly EPL Sampling: 01-28 February 2025 - Talbingo and Tantangara Reservoir

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Field			
pH	pH Unit	-	6.5-8
Electrical Conductivity	µS/cm	-	20-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	1-20
Laboratory analytes			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Nitrate Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
Inorganics			
Cyanide Total	µg/L	4	7
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 [^]
Biochemical Oxygen Demand	mg/L	2	1/5 [^]

EPL10	EPL11	EPL28	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL51	EPL107	EPL108	EPL109
26/2/25	26/2/25	9/2/25	9/2/25	9/2/25	1/2/25	1/2/25	9/2/25	9/2/25	9/2/25	26/2/25	26/2/25	26/2/25
8.12	7.93	8.07	8.16	8.1	8.95	6.66	7.56	8.21	8.18	7.64	7.69	7.89
78	56	28	26	26	28	30	30.9	27	27	34	32	31
205	209	225	227	230	101	233	168	220	86	221	204	151
23.52	23.15	21.2	22.5	22.4	26.22	22.65	19.9	22.61	22.65	22.16	21.74	21.52
75.4	69.2	56.9	58.3	65.2	78.4	91.5	88.4	62.9	57.5	69	82.8	80
0.5	0	13	9.3	9	10.3	18.7	5.16	8	9.1	0	0	23.5
<5	<5	8	<5	<5	6	8	<5	<5	<5	<5	<5	<5
43	31	9	9	9	5	7	9	9	9	17	17	14
40	130	<10	20	<10	<10	<10	20	<10	40	60	20	40
30	<10	20	<10	<10	<10	20	<10	20	<10	<10	<10	20
300	400	300	400	400	300	200	300	300	400	200	200	200
300	400	300	400	400	300	200	300	300	400	200	200	200
<10	<10	10	10	10	<10	<10	50	<10	<10	<10	<10	<10
30	40	40	40	40	30	20	50	40	70	<10	10	<10
<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	10	<10
<5	<5	26	32	30	24	37	25	30	31	<5	<5	<5
0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	<0.2	<0.2
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
26	12	388	246	247	186	141	104	252	251	6	4	4
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
<0.5	<0.5	1.7	3.4	3.3	2.7	8.8	4.4	3.0	3.2	<0.5	<0.5	<0.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,900	68	6000	-	-	-	-	-	-	3300	-	-	-
3	3	5	-	-	-	-	-	-	6	-	-	-

* Water Quality Objective values for Talbingo and Tantangara Reservoir refer to the default trigger values for physical and chemical stressors in south-east Australia (fresh lakes and reservoirs) for the protection of 95% of aquatic species ANZECC / ARMCANZ (2000), they are not pollutant limits imposed by EPL 21266.

** Algal blooms can present as faecal coliforms

^ 90th percentile concentration limits / 100 percentile concentration limits

- Sample not required at this location.



Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-28 February 2025 - Treated Water

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Flow Rate			
Inflow [#]	ML/day	-	-
Outflow [#]	ML/day	-	4.32 (EPL 43 / 50)
Field			
pH	pH Unit	-	6.5-8.5
Electrical Conductivity	µS/cm	-	700 (EPL 41) / 200 (EPL 50)
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	15
Dissolved Oxygen	% saturation	-	No Water Quality Objective Value
Turbidity	NTU	-	<25
Laboratory analytes			
Total suspended solids	mg/L	5	5/10
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	200/2000 [^]
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- [^]
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 [^]
Inorganics			
Cyanide Total	µg/L	4	No Water Quality Objective Value
Hydrocarbons			
Oil and Grease	mg/L	1	2/5 [^]
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 [^]
Biological Oxygen Demand	mg/L	2	5

EPL 41	EPL 43	EPL 44	EPL 45	EPL 47	EPL 48	EPL 49	EPL 50
2/2/2025							
-	0.0000	0.1994	0.0523	0.2074	0.0887	0.6811	-
-	-	-	-	-	-	-	-
26/2/2025							
8.32	-	-	-	-	-	-	5.14
2210	-	-	-	-	-	-	10.8
203	-	-	-	-	-	-	224.5
26.69	-	-	-	-	-	-	19.6
66.3	-	-	-	-	-	-	85.7
9.9	-	-	-	-	-	-	0.8
01/02/2025							
<5	-	-	-	-	-	-	<5
106	-	-	-	-	-	-	<1
02/02/2025							
2,110	-	-	-	-	-	-	30
18,300	-	-	-	-	-	-	20
3,300	-	-	-	-	-	-	200
21,600	-	-	-	-	-	-	200
70	-	-	-	-	-	-	<10
80	-	-	-	-	-	-	40
03/02/2025							
11	-	-	-	-	-	-	<4
04/02/2025							
<1.0	-	-	-	-	-	-	<1.0
05/02/2025							
16	-	#	-	-	-	-	<5
3.0	-	#	-	-	-	-	<0.2
13.3	-	#	-	-	-	-	<0.2
<0.5	-	#	-	-	-	-	<0.5
<2	-	#	-	-	-	-	<2
<0.1	-	#	-	-	-	-	<0.1
2.7	-	#	-	-	-	-	<0.5
<0.5	-	#	-	-	-	-	<0.5
<0.01	-	#	-	-	-	-	<0.01
2	-	#	-	-	-	-	<1
06/02/2025							
<1	-	-	-	-	-	-	<1
<2	-	-	-	-	-	-	<2

Note: There is no 100th percentile limit for Nitrogen (Total).

* Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

- Samples not required

[^] 90 Percentile concentration limit/100 Percentile limit

[#] Inflows to STP and CWTP do not directly correspond to outflow at RO as much of the water is reused on site



Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-28 February 2025 - Treated Water

Date
2/1/2025
2/2/2025
2/3/2025
2/4/2025
2/5/2025
2/6/2025
2/7/2025
2/8/2025
2/9/2025
2/10/2025
2/11/2025
2/12/2025
2/13/2025
2/14/2025
2/15/2025
2/16/2025
2/17/2025
2/18/2025
2/19/2025
2/20/2025
2/21/2025
2/22/2025
2/23/2025
2/24/2025
2/25/2025
2/26/2025
2/27/2025
2/28/2025

EPL 43 *	EPL 50 ^
Discharge volume (Megalitres)	
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
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-	-
-	-
-	-

EPL 44	EPL 45	EPL 47	EPL 48	EPL 49
Discharge volume (Megalitres)				
0.18	0.04	0.33	0.18	0.50
0.14	0.05	0.28	0.08	0.77
0.17	0.04	0.13	0.08	0.84
0.19	0.05	0.24	0.07	0.76
0.10	0.04	0.21	0.07	0.65
0.19	0.02	0.10	0.08	0.77
0.22	0.09	0.32	0.08	0.71
0.19	0.05	0.25	0.19	0.79
0.21	0.03	0.20	0.07	0.87
0.24	0.09	0.24	0.09	0.65
0.19	0.05	0.24	0.09	0.76
0.19	0.05	0.22	0.09	0.66
0.24	0.05	0.26	0.08	0.86
0.14	0.06	0.17	0.09	0.86
0.20	0.05	0.21	0.19	0.68
0.20	0.06	0.23	0.07	0.48
0.30	0.07	0.21	0.01	0.95
0.30	0.06	0.23	0.08	0.87
0.33	0.06	0.21	0.10	0.77
0.38	0.06	0.26	0.09	0.80
0.17	0.05	0.22	0.09	0.59
0.11	0.05	0.23	0.04	0.40
0.32	0.07	0.21	0.09	0.50
0.27	0.06	0.18	0.10	0.34
0.30	0.08	0.19	0.03	0.83
0.18	0.07	0.17	0.13	0.95
0.17	0.04	0.23	0.07	0.99
0.18	0.10	0.27	0.22	0.84

- Water not discharged on this day
- Note: The EPL discharge volume limit for EPL 43 and 50 is 4.32 megalitres per day. Compliance with this criteria was met during the reporting month.
- * The maximum flow rate capacity for Lobs Hole STP/PWTP during the reporting month was 4.40 L/s
- ^ The maximum flow rate capacity for Tantangara STP/PWTP during the reporting month was 11.34 L/s
- Water not discharged on this day



Snowy Hydro 2.0 Main Works EPL Sampling: 01 - 31 March 2025

Environmental Protection Licence No:	21266
Licensee:	Snowy Hydro Limited
Licensee address:	PO Box 332, Cooma, NSW 2630
Premises:	Snowy 2.0 Pumped Hydro Power Station Talbingo and Tantangara, Kosciuszko National Park and Rock Forest, Kosciuszko NSW 2642
EPA Public Register:	https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=21266&id=21266&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued

Monthly water sampling and analysis is performed as part of the Snowy 2.0 Approval Conditions, Environmental Protection Licence No 21266 - Variation 20 December 2024, and the approved Water Management Plan to ensure that works are not impacting on nearby receiving waters.

A map showing the location of each of the EPL named sampling points is provided after the results tables.

Surface Water Results: Surface water results revealed EPL24 to show elevated concentrations in Electrical conductivity, Total Nitrogen, Nitrates, and Manganese. These levels fall within range of historical data, though we have seen an increased trend of these analytes, it is important to note that this location is sampled weekly when water levels permit. It has been observed that some EPL locations on the Yarrongabily river, Wallaces Creek, Nungar Creek, Eucumbene River, Kelly's Creek, and the Murrumbidgee River have shown decreased levels of Dissolved Oxygen which could be attributed to the lower levels of flow that had also been recorded historically when similar conditions were present. EPL 52, EPL EPL84, EPL85, and EPL86 are all showing high levels on Total Nitrogen, Electrical Conductivity, and pH. These locations are sediment basins and the results lie within our expectations for the results we received. EPL100, EPL101 are basins that have been well managed and have been dewatered promptly after rain events leaving them too low to obtain a sample.

Reservoir Results: Talbingo and Tantangara reservoir had low water levels, higher temperatures, and both had evidence of algae blooms with green colours and physical growths on the surface. These conditions may have contributed to the results recorded this month as there were exceedances in Electrical conductivity, as well as faecal coliforms. There were slight exceedances recorded for the Total Nitrogen and Dissolved oxygen were recorded at levels below our Water Quality Objectives for some of the locations.

Discharge Results: Water was discharged on the 01/03/2025 following sufficient NATA accredited laboratory results. The conductivity of EPL41 and EPL50 are below Water Quality Objectives, Nitrates are slightly above WQO's, though faecal coliforms are within the guideline values.

Groundwater Results: The groundwater EPL points recorded at Tantangara (Emplacement area) and Lobs Hole (Lick Hole Gully, Main Yard, GF01) areas have recorded exceedances in Electrical conductivity. These locations are situated near spoil emplacement areas. EPL81, EPL82, and EPL88 are also showing exceedances in Arsenic (filtered), Iron (filtered), and Nitrogen Total. Bore maintenance is currently on going within nominated locations. The results showing for EPL116, and EPL117 in phosphorus are extremely high in accordance to our WQO's, these spikes do not fall within historical records, and it is to note these locations are down gradients of the Spoil emplacement area. These EPL points are downgradient of the spoil emplacement areas, located near the reservoir. This is currently under investigation.

Leachate results: Results for leachate basins show exceedances in pH, EC, DO, and turbidity, as well as the results received for the comprehensive samples. These results are within expectations. The Marica EPL locations were consistently managed at levels that prohibit sample collection.

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Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-31 March 2025 - Talbingo and Tantangara Reservoir

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Field			
pH	pH Unit	-	6.5-8
Electrical Conductivity	µS/cm	-	20-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	1-20
Laboratory analytes			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
Inorganics			
Cyanide Total	µg/L	4	7
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium III+VI (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 ^{**}
Biochemical Oxygen Demand	mg/L	2	1/5 [^]

EPL10	EPL11	EPL28	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL51	EPL107	EPL108	EPL109
2/3/25	2/3/25	26/3/25	26/3/25	26/3/25	1/3/25	9/3/25	9/3/25	26/3/25	26/3/25	16/3/25	16/3/25	16/3/25
8.1	8.01	7.82	8.42	8.18	7.94	6.34	8.95	8.5	8.43	7.79	7.72	7.77
102	63	27	26	26	36	29.6	31.7	26	26	40	38	36
191	192	130	140	14	174	664.1	625.5	139	140	193	190	180
22.97	22.84	18.43	20.14	20.19	22.63	17.6	16.5	20.29	20.21	22.01	21.97	21.7
64.8	70.6	93.2	95.5	91.5	54.1	62.1	75.3	97.1	93.8	72.6	67.8	75.6
1.61	1.15	7.3	13.4	12.9	8.8	7.17	2.63	12.5	10.7	0.76	0.85	0.66
<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<5
46	28	9	9	9	9	13	16	9	9	14	14	14
<10	<10	70	<10	<10	20	30	140	90	<10	<10	40	20
<10	<10	10	<10	<10	<10	290	20	10	<10	<10	10	<10
100	100	300	400	400	300	100	200	300	400	100	100	100
100	100	300	400	400	300	400	200	300	400	100	100	100
<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
20	10	20	30	30	20	<10	<10	40	30	20	20	10
<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
<5	<5	12	9	11	40	26	19	10	10	<5	<5	<5
0.7	0.5	0.4	0.4	0.4	0.4	0.2	<0.2	0.4	0.4	0.3	0.4	0.4
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
20	6	141	90	92	218	98	89	96	91	4	3	3
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
<0.5	<0.5	0.6	<0.5	<0.5	1.7	3.4	3.4	0.5	<0.5	<0.5	<0.5	<0.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
75	230	7	-	-	-	-	-	-	5	-	-	-
4	3	3	-	-	-	-	-	-	2	-	-	-

* Water Quality Objective values for Talbingo and Tantangara Reservoir refer to the default trigger values for physical and chemical stressors in south-east Australia (fresh lakes and reservoirs) for the protection of 95% of aquatic species ANZECC / ARM CANZ (2000), they are not pollutant limits imposed by EPL 21266.

** Algal blooms can present as faecal coliforms

^ 90th percentile concentration limits / 100 percentile concentration limits

- Sample not required at this location.

Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-31 March 2025 - Surface Water

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Field			
pH			6.5-8
Electrical Conductivity	µS/cm		30-350
Oxidation Reduction Potential	mV		No Water Quality Objective Value
Temperature	°C		No Water Quality Objective Value
Dissolved Oxygen	% saturation		90-110
Turbidity	NTU		2-25
Laboratory analytes			
TSS	mg/L	5	No Water Quality Objective Value
Hardness as CaCO3	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	mg/L	10	13
Nitrite + Nitrate as N (NOx)	mg/L	15	
Ketohal Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	mg/L	100	250
Reactive Phosphorus	µg/L	1	15
Phosphorus (Total)	mg/L	10	20
Inorganics			
Cyanide Total	mg/L	4	4
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (total)	µg/L	5	No Water Quality Objective Value
Aluminium (dissolved)	µg/L	5	27
Arsenic (total)	µg/L	0.2	No Water Quality Objective Value
Arsenic (dissolved)	µg/L	0.2	0.8
Chromium (III-VI) (total)	µg/L	0.2	No Water Quality Objective Value
Chromium (III-VI) (dissolved)	µg/L	0.2	0.01
Copper (total)	µg/L	0.5	No Water Quality Objective Value
Copper (dissolved)	µg/L	0.5	1
Iron (total)	µg/L	2	No Water Quality Objective Value
Iron (dissolved)	µg/L	2	300
Lead (total)	µg/L	0.1	No Water Quality Objective Value
Lead (dissolved)	µg/L	0.1	1
Manganese (total)	µg/L	0.5	No Water Quality Objective Value
Manganese (dissolved)	µg/L	0.5	1,200
Nickel (total)	µg/L	0.5	No Water Quality Objective Value
Nickel (dissolved)	µg/L	0.5	8
Silver (total)	µg/L	0.01	No Water Quality Objective Value
Silver (dissolved)	µg/L	0.01	0.02
Zinc (total)	µg/L	1	No Water Quality Objective Value
Zinc (dissolved)	µg/L	1	2.4

EPL5	EPL6	EPL8	EPL9	EPL12	EPL14	EPL15	EPL16	EPL14	EPL16	EPL17	EPL30	EPL31	EPL33	EPL34	EPL35	EPL36	EPL37	EPL52	EPL53	EPL54	EPL55	EPL67	EPL71	EPL84	EPL85	EPL86	EPL98	EPL99	EPL100	EPL101	EPL106	EPL110	EPL118	EPL120	EPL122				
3/01/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25	3/03/25			
8.03	7.9	7.86	8.14	8.06	7.99	8.05	8.25	8.7	7.86	8.33	8.89	7.12	7.23	8.19	7.87	7.29	7.35	9.21																					
229	123	221	177	172	166	170	175	1270	37	36	42	32	31	48	42	52	54	863	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry		
90	118	139	146	101	121	125	137	134	190	164	208	285	239	136	155	136	145	93	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry		
17.93	16.42	21.61	20.07	17.47	17.39	17.77	22.66	18.43	11.98	11	13.43	13.5	17.83	12.18	11.71	16.06	15.75	23.49	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
88.4	63.3	68.7	84	66.2	107.4	71.5	65.2	65.1	74.2	71.2	61.4	69.4	68.3	66.3	68.8	58.2	63.2	80.4	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
8	3.7	4.6	10.1	1.6	3.3	1.7	3.3	0.4	5.3	7.65	5.1	8.8	13.2	71.9	14.9	7.8	9.2	47.1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	36	<5	<5	<5	<5	<5	<5	24	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry		
212	60	90	82	87	85	85	85	330	18	18	13	9	16	16	17	17	260	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
26	30	20	<10	<10	16	<10	<10	10	20	<10	40	<10	20	30	30	20	20	390	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
<100	<100	380	80	<100	10	100	20	61,600	<100	<100	10	<100	10	<100	<100	80	10	38,100	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
<100	<100	<100	<100	<100	<100	100	<100	5,100	<100	<100	300	<100	300	400	300	100	300	7,000	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
<100	<100	400	<100	<100	<100	100	<100	66,900	<100	<100	200	<100	300	400	300	100	300	45,100	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
10	30	50	40	<100	30	40	30	40	100	20	30	40	<100	40	30	30	30	30	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<4	<4	<4	<4	14	<4	<4	<4	5	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	11	12	24	16	15	16	23	<5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
0.7	0.3	0.7	0.6	0.7	0.7	0.7	0.7	0.4	<0.2	<0.2	<0.2	0.4	0.2	0.2	0.3	0.4	<0.2	0.3	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	0.3	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
6	22	11	12	6	8	9	13	2	22	15	46	35	145	213	221	324	269	<2	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
0.6	2.4	1.5	5.0	0.8	0.8	1.5	2.9	275	5.2	2.8	3.5	2.0	0.9	11.8	5.6	43.2	0.8	<0.5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
<1	<1	<1	<1	<1	<1	<1	<1	7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	

* Water Quality Objective values for surface water refer to the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) for the protection of 95% of aquatic species ANZECC / ARMCANZ (2018), they are not pollutant limits imposed by EPL 21266.

- Samples not required

**Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-31 March 2025 - Discharge Water**

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Flow Rate			
Inflow [#]	ML/day	-	-
Outflow [#]	ML/day	-	4.32 (EPL 43 / 50)
Field			
pH	pH Unit	-	6.5-8.5
Electrical Conductivity	µS/cm	-	700 (EPL 41) / 200 (EPL 50)
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	15
Dissolved Oxygen	% saturation	-	No Water Quality Objective Value
Turbidity	NTU	-	<25
Laboratory analytes			
Total suspended solids	mg/L	5	5/10
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	200/2000 [^]
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- [^]
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 [^]
Inorganics			
Cyanide Total	µg/L	4	No Water Quality Objective Value
Hydrocarbons			
Oil and Grease	mg/L	1	2/5 [^]
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 [^]
Biological Oxygen Demand	mg/L	2	5

EPL 41	EPL 43	EPL 44	EPL 45	EPL 47	EPL 48	EPL 49	EPL 50
16/03/2025							
-	0.0000	0.2650	0.0512	0.2177	0.0970	0.7472	-
-	-	-	-	-	-	-	-
12/03/2025							
7.84	-	-	-	-	-	-	7.92
6	-	-	-	-	-	-	18.6
507	-	-	-	-	-	-	701
25.15	-	-	-	-	-	-	16.1
73.6	-	-	-	-	-	-	55.2
0.9	-	-	-	-	-	-	0.53
16/03/2025							
<5	-	-	-	-	-	-	<5
<1	-	-	-	-	-	-	<1
12/03/2025							
40	-	-	-	-	-	-	<10
100	-	-	-	-	-	-	<10
<100	-	-	-	-	-	-	<100
100	-	-	-	-	-	-	<100
<10	-	-	-	-	-	-	<10
<10	-	-	-	-	-	-	10
16/03/2025							
<4	-	-	-	-	-	-	<4
12/03/2025							
<1.0	-	-	-	-	-	-	<1
16/03/2025							
<5	-	*	-	-	-	-	<5
<0.2	-	*	-	-	-	-	<0.2
<0.2	-	*	-	-	-	-	<0.2
<0.5	-	*	-	-	-	-	<0.5
<2	-	*	-	-	-	-	<2
<0.1	-	*	-	-	-	-	<0.1
<0.5	-	*	-	-	-	-	<0.5
<0.5	-	*	-	-	-	-	<0.5
<0.01	-	*	-	-	-	-	<0.01
<1	-	*	-	-	-	-	<1
12/03/2025							
11.00	-	-	-	-	-	-	<1
<2	-	-	-	-	-	-	<1

Note: Treated water was not being discharged at Talbingo Reservoir at the time of EPL sampling.

There is no 100th percentile limit for Nitrogen (Total).

* Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

- Samples not required

[^] 90 Percentile concentration limit/100 Percentile limit

[#] Inflows to STP and CWTP do not directly correspond to outflow at RO as much of the water is reused on site

Snowy Hydro 2.0 Main Works EPL Sampling: 01 - 30 April 2025

Environmental Protection Licence No:	21266
Licensee:	Snowy Hydro Limited
Licensee address:	PO Box 332, Cooma, NSW 2630
Premises:	Snowy 2.0 Pumped Hydro Power Station Talbingo and Tantangara, Kosciuszko National Park and Rock Forest, Kosciuszko NSW 2642
EPA Public Register:	https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=21266&id=21266&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued

Monthly water sampling and analysis is performed as part of the Snowy 2.0 Approval Conditions, Environmental Protection Licence No 21266 - Variation 20 December 2024, and the approved Water Management Plan to ensure that works are not impacting on nearby receiving waters.

A map showing the location of each of the EPL named sampling points is provided after the results tables.

Surface Water Results: EPL24 reported elevated nutrient concentrations, electrical conductivity and select heavy metals in line with previous sampling rounds, consistent with low water levels at the location. Although this is typical of low flows the site will continue to be monitored weekly. Multiple locations, such as EPL122 have reported elevated EC, low DO, and elevated nitrogen analytes. These are understood to be influenced by the low flow rates within the streams, and the catchments for our basin locations.

Reservoir Results: Reduced water levels and the developing algal cycle within the Tantangara and Talbingo water bodies are understood to heavily influence the observed analytical results. Notable concentrations of biological analytes, DO, EC and the nitrogen compounds observed at multiple locations are reflective of this.

Discharge Results: The analytical results reflect sample collection during the plant recirculation phase. Slight exceedances of nitrogen compounds and in-situ readings were noted. Note: No discharge occurred on the date the samples were collected. Although the samples were taken from the EPL designated EPL41, the commissioning of the INX-OUT location further downstream is understood to be a more representative location.

Groundwater Results: The results for downstream groundwater points have returned elevated results in Nitrogen, Nitrates, Phosphorus, and Ammonia that are greater than adopted WQO's. Multiple locations have reported concentrations of nitrogenous compounds across the Project footprint, particularly from locations within proximity to the emplacement area GF01. Locations such as EPL57 are returning elevated nitrates, Nitrogens, and phosphorus results were observed to be increasing. Heavy metals such as Arsenic and Copper (dissolved) were reported as greater than adopted WQO's at Main Yard locations particularly. It is noted the majority of heavy metal concentrations are within historic ranges for the historic mining locations. EPL87, EPL95, EPL105 reported elevated concentrations of dissolved zinc outside historic ranges.

Leachate results: The exceedances found within the leachate basin results are in line with intended design functionality for the storage locations of leachate water. GF01 leachate basin was under repair works by construction and therefore had no water available for collection.

Snowy Hydro Limited gives no warranty or representation regarding the data suitability for any particular purpose.

Snowy Hydro Limited excludes all liability to any person for loss or damage of any kind (however caused, including but not limited to by negligence) arising whether directly or indirectly from or relating in any way to the use of this data, whether in whole or in part.

Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-30 April 2025 - Talbingo and Tantangara Reservoir

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Field			
pH	pH Unit	-	6.5-8
Electrical Conductivity	µS/cm	-	20-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	1-20
Laboratory analytes			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
Inorganics			
Cyanide Total	µg/L	4	7
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 [^]
Biochemical Oxygen Demand	mg/L	2	1/5 [^]

EPL10	EPL11	EPL28	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL51	EPL107	EPL108	EPL109
13/04/2025	13/04/2025	16/04/2025	15/04/2025	15/04/2025	12/04/2025	6/04/2025	12/04/2025	15/04/2025	16/04/2025	13/04/2025	13/04/2025	13/04/2025
7.35	7.35	8.93	7.82	8.13	8.59	7.2	7.72	7.74	7.87	7.24	7.29	7.9
47	41	13.9	27	27	27	2	32.5	28	27.5	38	33	35
193	190	110.1	134	110	113	259	143.5	165	144.7	183	175	145
18.32	18.42	15.3	14.65	14.7	14.9	11.75	16.2	13.84	16.6	17.75	17.4	17.27
87.2	91.2	89.7	60.1	101.6	89.1	65	101.3	93.6	91	85	89.2	85.7
5.1	9.5	6.85	0	3.3	57.9	6	3.28	8.2	10.96	0.5	11	15.9
<5	<5	17	<5	<5	18	<5	<5	<5	<5	<5	<5	<5
22	19	9	9	9	9	7	9	9	9	10	10	10
30	30	<10	10	10	<10	<10	<10	20	<10	<10	<10	<10
<10	<10	10	<10	<10	<10	80	<10	<10	<10	<10	<10	<10
100	100	1,200	500	300	800	100	<100	300	400	<100	<100	<100
100	100	1,200	500	300	800	200	<100	300	400	<100	<100	<100
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
30	20	70	30	30	40	150	20	20	50	20	20	<10
<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
<5	<5	15	9	9	9	12	13	8	9	<5	<5	<5
0.4	0.4	0.3	0.3	0.4	0.4	<0.2	<0.2	0.4	0.4	0.4	0.4	0.3
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6	4	72	55	56	52	77	58	61	58	4	4	4
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.2	2.4	<0.5	<0.5	<0.5	<0.5	<0.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
28	21	100	-	-	-	-	-	-	1	-	-	-
4	3	4	-	-	-	-	-	-	2	-	-	-

* Water Quality Objective values for Talbingo and Tantangara Reservoir refer to the default trigger values for physical and chemical stressors in south-east Australia (fresh lakes and reservoirs) for the protection of 95% of aquatic species ANZECC / ARM CANZ (2000), they are not pollutant limits imposed by EPL 21266.
 ** Algal blooms can present as faecal coliforms
 ^ 90th percentile concentration limits / 100 percentile concentration limits
 - Sample not required at this location.

Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-30 April 2025 - Surface Water

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Field			
pH	-	-	6.5-8
Electrical Conductivity	µS/cm	-	30-350
Oxidation Reduction Potential	mv	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	2-25
Laboratory analyses			
TSS	mg/L	5	No Water Quality Objective Value
Hardness as CaCO3	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	13
Nitrite + Nitrate as N (NOx)	µg/L	10	15
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	250
Reactive Phosphorus	µg/L	1	15
Phosphorus (Total)	µg/L	10	20
Inorganics			
Cyanide Total	µg/L	4	4
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (total)	µg/L	5	No Water Quality Objective Value
Aluminium (dissolved)	µg/L	5	27
Arsenic (total)	µg/L	0.2	No Water Quality Objective Value
Arsenic (dissolved)	µg/L	0.2	0.8
Chromium (III+VI) (total)	µg/L	0.2	0.01
Chromium (III+VI) (dissolved)	µg/L	0.2	No Water Quality Objective Value
Copper (total)	µg/L	0.5	1
Copper (dissolved)	µg/L	0.5	1
Iron (total)	µg/L	2	No Water Quality Objective Value
Iron (dissolved)	µg/L	2	300
Lead (total)	µg/L	0.1	No Water Quality Objective Value
Lead (dissolved)	µg/L	0.1	1
Manganese (total)	µg/L	0.5	No Water Quality Objective Value
Manganese (dissolved)	µg/L	0.5	1,200
Nickel (total)	µg/L	0.5	No Water Quality Objective Value
Nickel (dissolved)	µg/L	0.5	8
Silver (total)	µg/L	0.01	No Water Quality Objective Value
Silver (dissolved)	µg/L	0.01	0.02
Zinc (total)	µg/L	1	No Water Quality Objective Value
Zinc (dissolved)	µg/L	1	2.4

EPL5	EPL6	EPL8	EPL9	EPL12	EPL14	EPL15	EPL16	EPL24	EPL26	EPL27	EPL30	EPL31	EPL33	EPL34	EPL35	EPL36	EPL37	EPL52	EPL53	EPL54	EPL55	EPL67	EPL71	EPL84	EPL85	EPL86	EPL98	EPL99	EPL100	EPL101	EPL106	EPL110	EPL118	EPL120	EPL122
11/04/2025	11/04/2025	11/04/2025	11/04/2025	11/04/2025	11/04/2025	11/04/2025	11/04/2025	9/04/2025	13/04/2025	13/04/2025	6/04/2025	6/04/2025	6/04/2025	6/04/2025	6/04/2025	22/04/2025	5/04/2025	9/04/2025	Dry	Dry	Dry	Dry	Dry	29/04/2025	29/04/2025	11/04/2025	Dry	13/04/2025	19/04/2025	13/04/2025	12/04/2025	Dry	Dry	Dry	22/04/2025
8.14	8.09	8.18	8.18	8.18	8.2	8.17	8.34	6.83	8.23	8.09	7.66	7.53	7.51	7.87	7.69	6.76	7.45	8.71	Dry	Dry	Dry	Dry	Dry	9.02	9.04	8.85	Dry	9.5	8.74	7.17	8.85	Dry	Dry	Dry	8.26
150	127	153	149	147	144	146	147	922	37	32	11	1	7	13	7	40	22	960	Dry	Dry	Dry	Dry	Dry	937	679	871	Dry	479	1050	1330	1660	Dry	Dry	Dry	656
173	173	175	176	167	173	176	170	112	124	133	236	244	229	182	180	201	201	165	Dry	Dry	Dry	Dry	Dry	94	113	-15	Dry	4	74	115	44	Dry	Dry	Dry	135
12.21	12.56	16.69	15.83	12.36	13.31	13.84	15.63	14.29	10.46	9.27	8.13	7.87	14.11	9.3	7.54	11.89	12.21	13.56	Dry	Dry	Dry	Dry	Dry	18.89	18.05	19.01	Dry	17.66	16.25	18.34	17.44	Dry	Dry	Dry	15.06
92.3	96.7	89.3	97.9	93.3	95.1	97.2	93.8	50.6	74.3	77.7	75	58.8	63.2	81	68.9	51.8	64.9	69.5	Dry	Dry	Dry	Dry	Dry	89.8	72.6	90.2	Dry	94.9	62.3	5.33	89.2	Dry	Dry	Dry	59.3
3.83	0.59	0.86	0.69	0.4	1.11	0.3	0.3	18.6	16.4	14.2	6.3	3.6	30.8	9.4	3.6	15.2	23.5	73.2	Dry	Dry	Dry	Dry	Dry	1000	1000	190	Dry	26.6	167	41.3	17	Dry	Dry	Dry	1000
6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5	<5	16	29	34	Dry	Dry	Dry	Dry	Dry	349	571	77	Dry	<5	60	<5	<5	Dry	Dry	Dry	577
81	72	81	85	83	87	87	-	282	18	14	13	9	9	16	16	13	17	285	Dry	Dry	Dry	Dry	Dry	39	46	144	Dry	170	276	303	460	Dry	Dry	Dry	61
40	<10	50	20	20	20	10	6	<10	20	10	<10	<10	20	30	<10	10	20	30	Dry	Dry	Dry	Dry	Dry	50	60	20	Dry	12,300	690	2,110	20	Dry	Dry	Dry	20
<10	<10	120	80	<10	<10	<10	2	39,100	10	<10	10	<10	60	20	<10	60	<10	32,600	Dry	Dry	Dry	Dry	Dry	8,220	7,580	10,200	Dry	33,400	37,800	38,000	10,300	Dry	Dry	Dry	6,820
200	100	200	200	100	100	100	400	5,200	<100	<100	<100	<100	400	100	100	200	600	100	Dry	Dry	Dry	Dry	Dry	3,800	1,700	2,500	Dry	15,000	4,200	7,200	8,000	Dry	Dry	Dry	2,500
200	100	300	300	100	100	100	400	44,300	<100	<100	<100	<100	500	100	100	300	600	32,700	Dry	Dry	Dry	Dry	Dry	12,000	9,300	12,700	Dry	48,400	42,000	45,200	18,300	Dry	Dry	Dry	9,300
<1	<1	<1	<1	<1	<1	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Dry	Dry	Dry	Dry	Dry	<10	<10	<10	Dry	<10	<10	<10	<10	Dry	Dry	Dry	<10
<10	<10	<10	30	<10	<10	20	9	20	<10	30	10	<10	20	10	20	20	40	60	Dry	Dry	Dry	Dry	Dry	850	630	60	Dry	20	100	30	<10	Dry	Dry	Dry	730
<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	Dry	Dry	Dry	Dry	Dry	<4	<4	<4	Dry	116	<4	7	<4	Dry	Dry	Dry	
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Dry	Dry	Dry	Dry	Dry	<1	<1	<1	Dry	<1	<1	<1	<1	Dry	Dry	Dry	<1
<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7	8	9	8	16	16	31	Dry	Dry	Dry	Dry	Dry	11	9	8	Dry	16	20	8	6	Dry	Dry	Dry	6
0.7	0.3	0.7	0.7	0.7	0.6	0.6	<1	1.1	<0.2	<0.2	<0.2	<0.2	0.4	<0.2	<0.2	0.3	0.3	4.4	Dry	Dry	Dry	Dry	Dry	19.5	21.4	15.4	Dry	1.3	1.9	2.3	2.5	Dry	Dry	Dry	2.0
<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<1	1.6	0.3	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	5.1	-	-	-	-	5.1	-	-	-	-	-	-	-	-	-	-	-
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	Dry	Dry	Dry	Dry	Dry	6.2	2.0	2.0	Dry	2.0	1.5	1.7	<0.5	Dry	Dry	Dry	1.0
48	21	7	9	3	4	6	<50	8	14	9	33	25	83	118	134	211	136	3	Dry	Dry	Dry	Dry	Dry	20	5	<2	Dry	<2	<2	<2	<2	Dry	Dry	Dry	8
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	34.2	-	-	-	-	0.5	0.1	<0.1	Dry	<0.1	<0.1	<0.1	<0.1	Dry	Dry	Dry	<0.1
3.2	3.8	1.3	3.4	0.6	0.6	1.4	<5	238	3.3	1.0	4.4	2.1	<0.5	6.7	9.3	36.2	4.1	1.7	Dry	Dry	Dry	Dry	Dry	0.8	<0.5	<0.5	Dry	2.1	42.0	116	<0.5	Dry	Dry	Dry	7.9
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	4.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	Dry	Dry	Dry	Dry	Dry	1.8	0.8	0.8	Dry	0.6	1.8	1.9	1.9	Dry	Dry	Dry	1.1
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-
<1	<1	<1	<1	<1	<1	<1	<5	14	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Dry	Dry	Dry	Dry	Dry	1	<1	<1	Dry	<1	<1	<1	<1	Dry	Dry	Dry	<1

* Water Quality Objective values for surface water refer to the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) for the protection of 99% of aquatic species ANZECC / ARMCANZ (2018), they are not pollutant limits imposed by EPL 21266.
- Samples not required

Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-30 April 2025 - Volumes

Date
1/04/2025
2/04/2025
3/04/2025
4/04/2025
5/04/2025
6/04/2025
7/04/2025
8/04/2025
9/04/2025
10/04/2025
11/04/2025
12/04/2025
13/04/2025
14/04/2025
15/04/2025
16/04/2025
17/04/2025
18/04/2025
19/04/2025
20/04/2025
21/04/2025
22/04/2025
23/04/2025
24/04/2025
25/04/2025
26/04/2025
27/04/2025
28/04/2025
29/04/2025
30/04/2025

EPL 43 *	EPL 50 ^
Discharge volume (Megalitres)	
-	0.12
0.52	0.63
0.46	-
0.38	0.82
0.28	-
-	0.74
-	-
-	0.34
-	0.58
-	-
-	0.44
0.17	0.33
-	0.37
-	0.61
0.28	-
-	0.55
-	0.18
-	-
-	-
-	0.07
-	-
0.43	0.14
0.56	-
-	-
0.37	-
-	-
0.46	-
-	-

EPL 44	EPL 45	EPL 47	EPL 48	EPL 49
Discharge volume (Megalitres)				
0.21	0.05	0.19	0.06	1.10
0.25	0.06	0.23	0.08	0.95
0.22	0.05	0.23	0.09	0.62
0.14	0.07	0.28	0.10	0.60
0.04	0.03	0.24	0.07	0.33
0.19	0.06	0.21	0.10	0.72
0.30	0.06	0.25	0.07	0.59
0.46	0.06	0.22	0.09	0.76
0.48	0.06	0.23	0.05	0.52
0.51	0.08	0.17	0.09	0.71
0.25	0.07	0.18	0.28	0.71
0.41	0.05	0.30	0.08	0.48
0.27	0.05	0.23	0.04	0.53
0.27	0.05	0.39	0.03	0.66
0.59	0.05	0.22	0.08	0.52
0.29	0.04	0.20	0.25	0.46
0.16	0.04	0.19	0.09	0.52
0.28	0.06	0.18	0.05	0.56
0.28	0.04	0.20	0.07	0.54
0.31	0.05	0.19	0.09	0.64
0.36	0.05	0.19	0.10	0.51
0.50	0.06	0.20	0.06	0.35
0.41	0.09	0.19	0.03	0.62
0.28	0.06	0.20	0.02	0.33
0.19	0.05	0.23	0.08	0.36
0.27	0.05	0.21	0.08	0.29
0.47	0.06	0.22	0.02	0.58
0.20	0.06	0.26	0.05	0.54
0.49	0.05	0.22	0.09	0.71
0.22	0.04	0.21	0.07	0.60

- Water not discharged on this day

Note: The EPL discharge volume limit for EPL 43 and 50 is 4.32 megalitres per day. Compliance with this criteria was met during the reporting month.

* The maximum flow rate capacity for Lobs Hole STP/PWTP during the reporting month was 8.45 L/s

^ The maximum flow rate capacity for Tantangara STP/PWTP during the reporting month was 11.34 L/s

-- Water not discharged on this day



**Snowy Hydro 2.0 Main Works
Monthly EPL Sampling: 01-30 April 2025 - Discharge Water**

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Flow Rate			
Inflow [#]	ML/day	-	-
Outflow [#]	ML/day	-	4.32 (EPL 43 / 50)
Field			
pH	pH Unit	-	6.5-8.5
Electrical Conductivity	µS/cm	-	700 (EPL 41) / 200 (EPL 50)
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	15
Dissolved Oxygen	% saturation	-	No Water Quality Objective Value
Turbidity	NTU	-	<25
Laboratory analytes			
Total suspended solids	mg/L	5	5/10
Hardness as CaCO ₃ (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	200/2000 [^]
Nitrite + Nitrate as N (NO _x)	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- [^]
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 [^]
Inorganics			
Cyanide Total	µg/L	4	No Water Quality Objective Value
Hydrocarbons			
Oil and Grease	mg/L	1	2/5 [^]
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 [^]
Biological Oxygen Demand	mg/L	2	5

	EPL 41	EPL 43	EPL 44	EPL 45	EPL 47	EPL 48	EPL 49	EPL 50
23/04/2025								27/04/2025
-	0.0000	0.3093	0.0545	0.2226	0.0815	0.5803	-	-
-	-	-	-	-	-	-	-	-
7.63	-	-	-	-	-	-	-	7.71
9.4	-	-	-	-	-	-	-	19.1
156	-	-	-	-	-	-	-	97.8
19.91	-	-	-	-	-	-	-	16.7
56	-	-	-	-	-	-	-	88.8
0.24	-	-	-	-	-	-	-	0.58
<5	-	-	-	-	-	-	-	<5
<1	-	-	-	-	-	-	-	<1
20	-	-	-	-	-	-	-	<10
80	-	-	-	-	-	-	-	10
<100	-	-	-	-	-	-	-	<100
<100	-	-	-	-	-	-	-	<100
<1	-	-	-	-	-	-	-	<10
<1	-	-	-	-	-	-	-	20
<4	-	-	-	-	-	-	-	<4
<1.0	-	-	-	-	-	-	-	<1.0
<5	-	-	-	-	-	-	-	<5
<0.2	-	-	-	-	-	-	-	<0.2
<0.2	-	-	-	-	-	-	-	<0.2
<0.5	-	-	-	-	-	-	-	0.6
<2	-	-	-	-	-	-	-	<2
<0.1	-	-	-	-	-	-	-	<0.1
<0.5	-	-	-	-	-	-	-	<0.5
<0.5	-	-	-	-	-	-	-	<0.5
<0.01	-	-	-	-	-	-	-	<0.01
<1	-	-	-	-	-	-	-	5
<1	-	-	-	-	-	-	-	<1
<2	-	-	-	-	-	-	-	<2

Note: Treated water was not being discharged at Talbingo Reservoir at the time of EPL sampling.

There is no 100th percentile limit for Nitrogen (Total).

* Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

- Samples not required

[^] 90 Percentile concentration limit/100 Percentile limit

[#] Inflows to STP and CWTP do not directly correspond to outflow at RO as much of the water is reused on site

