DOC25/572017

Snowy Hydro Limited
PO Box 332
COOMA NSW 2630

By email: peter.cowper@snowyhydro.com.au

23 July 2025

Snowy 2.0 – Pumped Hydro Power Station at Talbingo and Tantangara – EPL 21266 – Draft licence variation 1648456

Dear Mr Cowper,

I refer to Environment Protection Licence 21266 (the Licence), held by Snowy Hydro Limited (SHL) for the Snowy 2.0 Pumped Hydro Power Station at Talbingo and Tantangara (the Premises). I also refer to comments provided by SHL on 22 July 2025 regarding Draft Licence Variation 1648456.

The EPA has reviewed the response from SHL and acknowledge that SHL have no further comments on the draft Licence Variation. Please find attached Licence Variation 1648456 issued on 23 July 2025 and a copy of the updated Licence for your records.

Thank you for your cooperation in this matter. If you have any further questions or would like to discuss this matter further, please contact me at info@epa.nsw.gov.au.

Yours sincerely

Carlie Armstrong
Unit Head
Operations

Enclosure

Section 58(5) Protection of the Environment Operations Act 1997

Licence Variation

Licence - 21266

SNOWY HYDRO LIMITED
ABN 17 090 574 431 ACN 090 574 431
PO BOX 332
COOMA NSW 2630

Attention: Peter Cowper

Notice Number	1648456
File Number	EF19/14561
Date	23-Jul-2025

NOTICE OF VARIATION OF LICENCE NO. 21266

BACKGROUND

A. SNOWY HYDRO LIMITED ("the licensee") is the holder of Environment Protection Licence No. 21266 ("the licence") issued under the *Protection of the Environment Operations Act 1997* ("the Act"). The licence authorises the carrying out of activities at KOSCIUSZKO NATIONAL PARK AND ROCK FOREST, KOSCIUSZKO, NSW, 2642 ("the premises").

B. On the Environment Protection Authority (EPA) received a request for advice from SHL regarding the movement of spoil across the Premises via public roads.

C. The EPA has determined that this activity is consistent with the relevant consent and the statutory requirements under the Act and has opted to reflect this in the EPL in the addition of **Condition O4.2**.

D. The EPA has taken this opportunity to update a number of licence conditions to:

   A. Clarify expectations regarding timely provisions of sampling results (**Note under Condition R2**),

   B. Require the Licensee to undertake an Assessment of Water Reuse and Basin Maintenance Activities (**Condition U1**)

   C. Vary the Lining and Capping requirements required under **Special Condition E3** to include Rock Forest, and to amend the parameters which direct the Licensee to provide the EPA with a CQA Report to be by exception.

VARIATION OF LICENCE NO. 21266

1. By this notice the EPA varies licence No. 21266. The attached licence document contains all variations that are made to the licence by this notice.

2. The following variations have been made to the licence:

- **Condition O4.1** has been **edited** to rectify a typographical error.
- **Condition O4.2** has been **added** to the licence
- **Note under Condition R2** has been included to clarify expectations regarding timely provisions of sampling results
- **Condition U1** has been included to require the Licensee to undertake an Assessment of Water Reuse and Basin Maintenance Activities
- **Condition E3** has been varied to include Rock Forest and to amend the parameters which direct the Licensee to provide the EPA with a CQA Report to be by exception.
- **Condition E4** has been created to separate requirements pertaining to lining and capping of permanent spoil emplacement areas

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Carlie Armstrong

Unit Head

Environment Protection Authority

(by Delegation)

INFORMATION ABOUT THIS NOTICE

- This notice is issued under section 58(5) of the Act.
- Details provided in this notice, along with an updated version of the licence, will be available on the EPA's Public Register (http://www.epa.nsw.gov.au/prpoeo/index.htm) in accordance with section 308 of the Act.

Appeals against this decision

- You can appeal to the Land and Environment Court against this decision. The deadline for lodging the appeal is 21 days after you were given notice of this decision.

When this notice begins to operate

- The variations to the licence specified in this notice begin to operate immediately from the date of this notice, unless another date is specified in this notice.
- If an appeal is made against this decision to vary the licence and the Land and Environment Court directs that the decision is stayed the decision does not operate until the stay ceases to have effect or the Land and Environment Court confirms the decision or the appeal is withdrawn (whichever occurs first).

Licence Variation

Licence Variation Summary

Licence - 21266

This Summary serves merely to highlight changes made to areas of this licence. Changes made to tables within the licence are indicated using underline (for additions) and Strikethrough (for deletions).
While changes to conditions are indicated under subheadings such as 'New condition', 'Old condition', 'Replaced by', and ' Removed condition.

The attached licence document contains all the changes made to this licence by the attached variation notice.

4 Operating Conditions

Waste management

Old condition:
The licensee must assess, classify and manage any waste generated at the premises in accordance with the Waste Classification Guidelines 2014 and the Act. Waste need to be transported to a place that can lawfully accept that waste.

Replaced by:
The licensee must assess, classify and manage any waste generated at the premises in accordance with the Waste Classification Guidelines 2014 and the Act. Waste must be transported to a place that can lawfully accept that waste.

New condition:
Spoil material generated at the Premises can be transported on public roads between parts of the Premises providing that the material is not stored or placed outside of the Premises at any time. The transport of this waste must comply with the Protection of the Environment Operations (Waste) Regulation 2014.

6 Reporting Conditions

Notification of environmental harm

New condition:
The Licensee or its employees (including any contractors engaged to undertake works on the Premises on behalf of the Licensee) must provide the EPA with comprehensive sampling results immediately after quality assurance quality control processes are completed, but no later than 14 days upon receipt of the results relating to any incidents notified in accordance with condition R2 of the Licence.

8 Pollution Studies and Reduction Programs

Assessment of Water Reuse and Basin Maintenance Activities

New condition:

By 30.09.2025 the Licensee (and/or persons conducting business on behalf of the Licensee) must assess all water reuse activities (RA) used to manage project impacted water captured on the Premises. This must, at a minimum:

a) Be undertaken by a suitably qualified and independent person/s approved in consultation with the EPA
b) Assess all tributaries potentially impacted by RA across the Premises to identify the waterways most at risk of pollution.
c) Assess the suitability of all current RA *(e.g. spraying via water carts, irrigation, concrete batching works*) in accordance with Condition U1.2.
d) Assess the suitability of any activities relied on to manage basin capacity (including sediment basins, leachate basins and sumps), including but not limited to pumping water between basins and routine desilting activities in accordance with Condition U1.3
e) Provide reasonable and feasible recommendations to address any gaps identified under points a) to d) above. This must include appropriate short, medium and long term timeframes for completion of recommended actions.

New condition:

The assessment of the suitability of all current RA required by Condition U1.1 c) must consider, at a minimum:

i. The adequacy of current resources and infrastructure requirements for each RA for each Project Site. This must consider any water pollution incidents from the previous 12 months attributed to resourcing, application or infrastructure shortfalls.
ii. Procedures for undertaking RA in a manner that does not cause pollution of waters (*e.g. preventing sediment laden runoff via considering spray intensity, spray duration and over-spraying, contingency controls such as mulch bunds if discharges do occur*)
iii. Suitability of RA relied on for different inputs known to contain elevated potential contaminants (*e.g. leachate basins, sediment basins or treated process water*)
iv. Opportunities for improvements to resources, infrastructure, procedures and controls relating to all RA to prevent pollution of waters; and
v. Opportunities for additional RA to be implemented at the Premises to prevent pollution of waters and further reduce excess project impacted water.

New condition:

The assessment of the suitability of activities relied on to manage basin capacity required by Condition U1.1 d) must consider, at a minimum:

i. The adequacy of current resources and infrastructure requirements for each activity for each Project Site. This should consider any water pollution incidents from the previous 12 months attributed to resourcing, application or infrastructure shortfalls.
ii. Procedures for maintaining basin capacity, including but not limited to frequency and prioritisation of inspections, desilting activities and pollution control contingencies during maintenance activities to

facilitate continuity of controls; and

iii. Opportunities for improvements to resources, infrastructure, procedures and controls relating to all activities, including additional activities to be implemented at the Premises in addition to current activities.

New condition:

By 1 December 2025, the Licensee must submit a report to the EPA documenting the findings of the assessment required under U1.1 above. The report must be submitted to info@epa.nsw.gov.au.

New condition:

By 19 December 2025 the Licensee must develop a Water Reuse Management Plan that provides clear procedures for optimising all water reuse activities in a manner that does not cause water pollution.

New condition:

By 15 January 2026, the Licensee must submit the management plan required under Condition U1.5 to the EPA. The report must be submitted via info@epa.nsw.gov.au

9 Special Conditions

Lining requirements for the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas

Old condition:

Prior to the emplacement of spoil at Ravine Bay and Tantangara Permanent Spoil Emplacement Areas (PSE), the Licensee must install a suitable engineered liner and drainage system that achieves a safe, stable and non-polluting landform, and separates any potential leachate from groundwater. The Licensee must:

1.evaluate and identify a suitable engineered liner and drainage system that achieves the aforementioned outcomes;

2.provide the EPA with the drainage design and technical liner specifications, including Construction Quality Assurance (CQA) plan and detailed design prior to installation;

3.design, construct, install and operate the liner and drainage system in accordance with the design specifications; and

4.following liner and drainage construction and installation, provide the CQA report prepared by a suitably qualified person to the EPA verifying achievement of the design specifications.

Replaced by:

Prior to the emplacement of spoil at Ravine Bay, Tantangara and Rock Forest Permanent Spoil

Emplacement Areas (PSE), the Licensee must install a suitable engineered liner and drainage system that achieves a safe, stable and non-polluting landform, and separates any potential leachate from groundwater. The Licensee must:

1. evaluate and identify a suitable engineered liner and drainage system that achieves the aforementioned outcomes;

2. provide the EPA with the drainage design and technical liner specifications, including Construction Quality Assurance (CQA) plan and detailed design prior to installation;

3. design, construct, install and operate the liner and drainage system in accordance with the design specifications, including the Construction Quality Assurance (CAQ) plan;

4. engage an independent and suitably qualified person/s to develop a CQA report to verify that all liner and drainage construction and installation is in accordance with the design specifications committed to under point 2 above; and

5. in the event that a CQA report developed in accordance with point 4 above identifies that liner and drainage construction and installation is not in accordance with the design specifications committed to under point 2 above, the Licensee must immediately notify the EPA via info@epa.nsw.gov.au

Capping Requirements for the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas

New condition:

Prior to the rehabilitation of the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas (PSE), the Licensee must install a suitable capping layer which fully encapsulates the PSEs, and minimises ingress of water into the PSEs. The capping layer must achieve a safe, stable and non-polluting landform. The Licensee must

1. evaluate and identify a suitable capping methodology that achieves the aforementioned outcomes;
2. provide the EPA with the final technical capping design specifications, including appropriate Quality Assurance (QA) and Quality Control (QC) plans and detailed design specifications prior to installation;
3. design, construct, and install the capping system in accordance with the design specifications; and,
4. provide QA/QC reports prepared by a suitably qualified person to the EPA following completion of the capping layer verifying achievement of the design specifications.

Environment Protection Licence

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Licence Details	
Number:	21266
Anniversary Date:	09-May

Licensee

SNOWY HYDRO LIMITED

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

Scheduled Activity

Electricity generation

Fee Based Activity	Scale
Generation of electrical power otherwise than from coal, diesel or gas	> 4000 GWh annual generating capacity

Contact Us

NSW EPA

6 Parramatta Square

10 Darcy Street

PARRAMATTA NSW 2150

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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

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The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

SNOWY HYDRO LIMITED
PO BOX 332
COOMA NSW 2630

subject to the conditions which follow.

Environment Protection Licence

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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2:
Main Works - Electricity Generation.

A1.2 There are seven (7) main stages to the scheduled development works at the premises listed in A2.

A1.3 Prior to commencing each stage (or subsection of that stage), the licensee must receive written approval from the EPA. The stages and their subsections are:

1. Process and sewage treatment plants (including diffuser installation):
    a. Lobs Hole
    b. Tantangara
    c. Marica

2. Construction facilities and internal access:
    a. Talbingo portal and construction support area
    b. Lobs Hole main yard
    c. ECVT portal (including cable yard and substations)
    d. MAT portal and construction support area
    e. Marica construction support areas
    f. Tantangara portal and construction support areas

3. Tunnelling and subsurface works:
    a. Talbingo adit and tailrace tunnel
    b. MAT
    c. ECVT
    d. Tailrace surge tank
    e. Headrace surge tank
    f. Headrace tunnel
    g. Tantangara adit

4. Reservoir works:
    a. Talbingo water intake and associated structures
    b. Talbingo barge launch
    c. Tantangara water intake and associated structures
    d. Tantangara barge launch

5. Spoil emplacement areas:
    a. Ravine Bay
    b. GFO1
    c. Lobs Hole
    d. Tantangara
    e. Rock Forest

6. Communication lines:
    a. MAT portal to Marica to Snowy Mountains Highway
    b. Snowy Mountains Highway to Tantangara Reservoir
    c. Tantangara Reservoir to Tantangara Road
    d. Link Road
    e. Link Road to Cabramurra

7. Road and bridge works:
    a. Lobs Hole Road North
    b. Ravine Road
    c. Tantangara Road
    d. Marica Road West
    e. Marica Trail

Note: For the purposes of Licence Condition A1.3, the following stages and subsections are deemed to have been approved by the EPA:

1. Process and sewage treatment plants (including diffuser installation):
    a. Lobs Hole;
    b. Tantangara;
    c. Marica.

2. Construction facilities and internal access:
    a. Talbingo portal and construction support area;
    b. Lobs Hole main yard;
    c. ECVT portal (including cable yard and substation);
    d. MAT portal and construction support areas;
    e. Marica portal and construction support areas;
    f. Tantangara portal and construction support areas.

3. Tunnelling and subsurface works:
    a. Talbingo adit and tailrace tunnel;
    b. MAT;
    c. ECVT;
    d. Tailrace surge tank;
    e. Headrace surge tank;
    f. Headrace surge tank;
    g. Tantangara adit;
    h. Marica adit.

5. Spoil emplacement areas:
    a. Ravine Bay;
    b. GF01;
    c. Lobs Hole;
    d. Tantangara;
    e. Rock Forest.

6. Communication lines:

a. MAT portal to Marica to Snowy Mountains Highway;
b. Snowy Mountains Highway to Tantangara Reservoir;

7. Road and bridge works:
a. Lobs Hole Road North;
b. Ravine Road;
c. Tantangara Road;
d. Marica Road West;
e. Marica Trail.

A1.4 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Electricity generation	Generation of electrical power otherwise than from coal, diesel or gas	> 4000 GWh annual generating capacity

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
SNOWY 2.0 PUMPED HYDRO POWER STATION TALBINGO AND TANTANGARA
KOSCIUSZKO NATIONAL PARK AND ROCK FOREST
KOSCIUSZKO
NSW 2642
PREMISES DEFINED BY: **SNOWY 2.0 MAIN WORKS INFRASTRUCTURE APPROVAL CSSI 9687 (20 MAY 2020): APPENDIX 1 – SCHEDULE OF LAND.**

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Ancillary Activity
Chemical Storage
Concrete Batching

Extractive Activities
Process Water Treatment
Road Construction and Maintenance
Sewage Treatment

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:
a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 For the purpose of the monitoring/discharge points tables below, "the Plan" refers to the plan titled 'Snowy Hydro 2.0 EPL Premises Plan' Version A, dated October 2024 and provided to the EPA on 6 December 2024 (DOC24/1008555).

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Groundwater Bore LOBS HOLE		Wallace Creek Bridge, west of ECVT portal, labelled EPL001 in "the Plan".
2	Groundwater Bore LOBS HOLE		Wallace Creek Bridge, west of ECVT portal, labelled EPL002 in "the Plan".
4	Groundwater Bore LOBS HOLE		Lobs Hole Portal Access, west of MAT portal, labelled EPL004 in "the Plan"

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5	Surface Water LOBS HOLE	Yarrangobilly River, upstream of the exploratory tunnel and construction pad, labelled EPL005 in "the Plan".
6	Surface Water LOBS HOLE	Wallaces Creek, upstream of the confluence of Yarrangobilly River and Wallaces Creek, labelled EPL006 in "the Plan".
8	Surface Water LOBS HOLE	Yarrangobilly River, downstream of Lick Hole Gully labelled EPL008 in "the Plan".
9	Surface Water LOBS HOLE	Yarrangobilly River, downstream of the accommodation camp and upstream of Talbingo Reservoir labelled EPL009 in "the Plan".
10	Surface Water TALBINGO RESERVOIR	Talbingo Reservoir, upstream of Lobs Hole STP/WTP diffuser outlet and water intake point labelled EPL010 in "the Plan".
11	Surface Water TALBINGO RESERVOIR	Talbingo Reservoir, downstream of Lobs Hole STP/WTP diffuser outlet labelled EPL011 in "the Plan".
12	Surface Water LOBS HOLE	Yarrangobilly River, immediately downstream of portal pad labelled EPL012 in "the Plan".
14	Surface Water LOBS HOLE	Yarrangobilly River, upstream of MY/LHG PSE labelled EPL014 in "the Plan".
15	Surface Water LOBS HOLE	Yarrangobilly River, downstream of road construction areas labelled EPL015 in "the Plan".
16	Surface Water LOBS HOLE	Yarrangobilly River, downstream of road construction areas labelled EPL016 in "the Plan".
24	Surface Water LOBS HOLE	Yarrangobilly River unnamed tributary, downslope of GFO1 PSE, labelled EPL024 in "the Plan".
25	Groundwater Bore LOBS HOLE	Monitoring well, downslope of MAT portal, labelled EPL025 in "the Plan".
26	Surface Water MARICA	Eucumbene River, downstream of Marica Road, labelled EPL026 in "the Plan".
27	Surface Water MARICA	Eucumbene River, upstream of Marica Road, labelled EPL027 in "the Plan".
28	Surface Water TANTANGARA	Tantangara Reservoir, upstream in the mouth of the Murrumbidgee River. Variable location dependent on tide and reservoir levels. Labelled EPL028 in "the Plan".
29	Surface Water TANTANGARA	Tantangara Reservoir, downstream of works area and upstream of lower Murrumbidgee River, labelled as EPL029 in "the Plan".

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30	Surface Water TANTANGARA		Kellys Plain Creek, downstream of accommodation camp and laydown areas, labelled EPL030 in "the Plan".
31	Surface Water TANTANGARA		Kellys Plain Creek, upstream of accommodation camp and laydown areas, labelled EPL031 in "the Plan".
32	Surface Water TANTANGARA		Tantangara Intake, downstream of construction works, labelled EPL032 in "the Plan".
33	Surface Water TANTANGARA		Murrumbidgee River, downstream of Tantangara reservoir outlet labelled EPL033 in "the Plan".
34	Surface Water TANTANGARA		Nungar Creek, upstream of Tantangara Road labelled EPL034 in "the Plan".
35	Surface Water TANTANGARA		Nungar Creek, downstream of Tantangara Road labelled EPL035 in "the Plan".
36	Surface Water ROCK FOREST		Camerons Creek, upstream of works in Rock Forest, labelled EPL036 in "the Plan".
37	Surface Water ROCK FOREST		Camerons Creek, downstream of works in Rock Forest, labelled EPL037 in "the Plan".
38	Surface Water TANTANGARA		Tantangara Reservoir, between emplacement area and ancillary facilities for emplacement activities. Variable location dependant on tide and reservoir levels. Labelled EPL038 in "the Plan".
39	Surface Water TANTANGARA		Confluence of Nungar Creek and Tantangara Reservoir, upstream of Tantangara construction works. Variable location dependent on tide and reservoir levels. Labelled EPL039 in "the Plan".
40	Surface Water TANTANGARA		Confluence of the upper Murrumbidgee River and Tantangara Reservoir, upstream of works. Variable location dependent on tide and reservoir levels. Labelled EPL040 in "the Plan".
41	Reverse Osmosis Plant TALBINGO		Lobs Hole Reverse Osmosis Plant Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Talbingo Reservoir. Labelled EPL041 in "the Plan".
42		Discharge to waters LOBS HOLE STP/PWTP TALBINGO	Diffuser outlet discharging into Talbingo Reservoir from Lobs Hole STP/WTP, labelled EPL042 in "the Plan".

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43	Volume outflow TALBINGO		Lobs Hole STP/WTP Final Volume Monitoring Point, downstream of final treatment, prior to discharge to Talbingo Reservoir. Labelled EPL043 in "the Plan".
44	Volume Inflow - PWTP TALBINGO		Lobs Hole WTP Inflow Volume Monitoring Point, labelled EPL044 in "the Plan".
45	Volume Inflow - Ex-Camp STP TALBINGO		Lobs Hole Ex-Camp STP Inflow Volume Monitoring Point, labelled EPL045 in "the Plan".
46		Discharge to waters TANTANGARA RESERVOIR	Diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP, labelled EPL046 in "the Plan".
47	Volume Inflow - Main Camp STP TALBINGO		Talbingo Main Camp STP Inflow Monitoring Point, labelled EPL047 in "the Plan".
48	Volume Inflow STP TANTANGARA		Tantangara STP Inflow Volume Monitoring Point, labelled EPL048 in "the Plan".
49	Volume Inflow PWTP TANTANGARA		Tantangara WTP Inflow Volume Monitoring Point, labelled EPL049 in "the Plan".
50	Reverse Osmosis Plant TANTANGARA		Tantangara Reverse Osmosis Plant final effluent quality and volume monitoring point, downstream of final treatment, prior to discharge to Tantangara reservoir. Labelled EPL050 in "the Plan".
51	Surface Water TANTANGARA		Tantangara Reservoir, downstream of Tantangara STP/WTP diffuser outlet. Labelled EPL051 in "the Plan".
52	Surface Water LOBS HOLE		Talbingo Reservoir, upstream of GF01 emplacement area GFO1 Leachate Basin, labelled EPL052 in "the Plan".
53	Surface Water LOBS HOLE		Talbingo Reservoir, upstream east of GF01 emplacement area, labelled EPL053 in "the Plan".
54	Surface Water LOBS HOLE		Talbingo Reservoir, upstream west of GF01 emplacement area, labelled EPL054 in "the Plan".
55	Surface Water LOBS HOLE		Yarrangobilly River, surface water downstream of GF01 emplacement area, labelled EPL055 in "the Plan".
56	Groundwater LOBS HOLE		Groundwater upstream east from GF01 emplacement area, labelled EPL056 in "the Plan".
57	Groundwater LOBS HOLE		Groundwater upstream west from GF01 emplacement area, labelled EPL057 in "the Plan".
58	Groundwater LOBS HOLE		Groundwater downgradient from GF01 emplacement area, labelled EPL058 in "the Plan".

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59	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB1, labelled EPL059 in "the Plan".
60	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB2, labelled EPL060 in "the Plan".
61	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB3, labelled EPL061 in "the Plan".
62	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB4, labelled EPL062 in "the Plan".
63	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB5, labelled EPL063 in "the Plan".
64	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB6, labelled EPL064 in "the Plan".
65	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB7, labelled EPL065 in "the Plan".
66	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-DSE, labelled EPL066 in "the Plan".
67	Surface Water TANTANGARA	Nungar Creek surface water downstream west from Tantangara emplacement area, labelled EPL067 in "the Plan".
68	Groundwater TANTANGARA	Groundwater downgradient east from Tantangara emplacement area, labelled EPL068 in "the Plan".
69	Groundwater TANTANGARA	Groundwater downgradient west from Tantangara emplacement area, labelled EPL069 in "the Plan".
70	Groundwater TANTANGARA	Groundwater upgradient from Tantangara emplacement area, labelled EPL070 in "the Plan".
71	Surface Water MARICA	Surface water downstream from Marica emplacement area, labelled EPL071 in "the Plan".
72	Groundwater MARICA	Groundwater upgradient from Marica emplacement area, labelled EPL072 in "the Plan".
73	Groundwater MARICA	Groundwater downgradient from Marica emplacement area, labelled EPL073 in "the Plan".
76	Surface Water ROCK FOREST	Rock Forest Leachate Basin, labelled EPL076 in "the Plan".
80	Groundwater LICK HOLE GULLY	Lick Hole Gully groundwater monitoring upgradient from Lick Hole Gully, labelled EPL080 in "the Plan".
81	Groundwater LICK HOLE GULLY	Lick Hole Gully groundwater monitoring downgradient from Lick Hole Gully, labelled EPL081 in "the Plan".

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82	Groundwater MAIN YARD	Main Yard groundwater monitoring upgradient from Main Yard emplacement area, labelled EPL082 in "the Plan".
83	Groundwater MAIN YARD	Groundwater monitoring downgradient from Main Yard emplacement area, labelled EPL083 in "the Plan".
84	Surface Water Main Yard	Main Yard leachate basin F8, labelled EPL084 in "the Plan".
85	Surface Water MAIN YARD	Main Yard leachate basin MY07, labelled EPL085 in "the Plan".
86	Surface Water LICK HOLE GULLY	Lick Hole Gully leachate basin LHG01, labelled EPL086 in "the Plan".
87	Groundwater MAIN YARD	Main Yard groundwater monitoring downgradient from Main Yard emplacement area, labelled EPL087 in "the Plan".
88	Groundwater MAIN YARD	Main Yard groundwater monitoring downgradient from Main Yard emplacement area, labelled EPL088 in "the Plan".
89	Groundwater LICK HOLE GULLY	Lick Hole Gully groundwater monitoring downgradient from GF01 emplacement area, labelled EPL089 in "the Plan".
90	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL090 in "the Plan".
91	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL091 in "the Plan".
92	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL092 in "the Plan".
93	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL093 in "the Plan".
94	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL094 in "the Plan".
95	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL095 in "the Plan".
96	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL096 in "the Plan".

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97	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL097 in "the Plan".
98	Surface Water GF01	Rock blanket diversion monitoring under GF01 Liner, labelled EPL098 in "the Plan".
99	Surface Water MARICA	Marica Leachate basin - Turkey's Nest, labelled EPL099 in "the Plan".
100	Surface Water MARICA	Marica Lower Leachate Basin USS Shaft, labelled EPL100 in "the Plan".
101	Surface Water MARICA	Marica Leachate Basin Spoil Pad, labelled EPL101 in "the Plan".
102	Groundwater MARICA	Groundwater monitoring associated with the Marica emplacement area on Marica Trail, adjacent MT06, labelled EPL102 in "the Plan".
103	Groundwater TANTANGARA	Upstream groundwater monitoring west of the Tantangara emplacement area, labelled EPL103 in "the Plan".
104	Groundwater TANTANGARA	Downslope groundwater monitoring east of the Tantangara emplacement area, labelled EPL104 in "the Plan".
105	Groundwater TANTANGARA	Downslope groundwater monitoring west of the Tantangara emplacement area, labelled EPL105 in "the Plan".
106	Surface Water RAVINE BAY	Ravine Bay Leachate basin 1, labelled EPL106 in "the Plan".
107	Surface Water RAVINE BAY	Upstream monitoring of Ravine Bay emplacement area within Yarrangobilly River, labelled EPL107 in "the Plan".
108	Surface Water RAVINE BAY	Monitoring of Ravine Bay emplacement area (centre of PSE) within Yarrangobilly River, labelled EPL108 in "the Plan".
109	Surface Water RAVINE BAY	Upstream monitoring of Ravine Bay emplacement area within Yarrangobilly River, labelled EPL109 in "the Plan".
110	Surface Water RAVINE BAY	Upstream monitoring of Ravine Bay emplacement area, labelled EPL110 in "the Plan".
111	Surface Water RAVINE BAY	Upstream monitoring of Ravine Bay emplacement area rock mattress, labelled EPL111 in "the Plan".
112	Surface Water RAVINE BAY	Downstream monitoring of Ravine Bay emplacement area rock mattress, labelled EPL112 in "the Plan".
113	Groundwater RAVINE BAY	Upstream east monitoring of Ravine Bay emplacement area, labelled EPL113 in "the Plan".

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114	Groundwater RAVINE BAY	Upstream west monitoring of Ravine Bay emplacement area, labelled EPL114 in "the Plan".
115	Groundwater RAVINE BAY	Downstream east monitoring of Ravine Bay emplacement area, labelled EPL115 in "the Plan".
116	Groundwater RAVINE BAY	Downstream west monitoring of Ravine Bay emplacement area, labelled EPL116 in "the Plan".
117	Groundwater RAVINE BAY	Downstream monitoring of the Ravine Bay emplacement area, labelled EPL117 in "the Plan".
118	Surface Water RAVINE BAY	Ravine Bay Leachate basin 2, labelled EPL118 in "the Plan".
119	Surface Water RAVINE BAY	Ravine Bay Leachate basin 3, labelled EPL119 in "the Plan".
120	Surface Water RAVINE BAY	Ravine Bay Leachate basin 4, labelled EPL120 in "the Plan".
122	Surface Water GFO1	GFO1 Drainage Line (formerly EPL 55b), labelled EPL122 in "the Plan".

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\s.

L2.4 Water and/or Land Concentration Limits

POINT 41,50

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit

BOD	milligrams per litre	2		5

POINT 41

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Electrical conductivity	microsiemens per centimetre				700

POINT 41,50

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Faecal Coliforms	colony forming units per 100 millilitres		10		100
Nitrogen (ammonia)	milligrams per litre		0.2		2
Nitrogen (total)	milligrams per litre		0.35		
Oil and Grease	milligrams per litre		2		5
pH	pH				6.5-8.5
Phosphorus (total)	milligrams per litre		0.1		0.3
Total suspended solids	milligrams per litre		5		10

POINT 50

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Electrical conductivity	microsiemens per centimetre				200

L3 Volume and mass limits

L3.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:
a) liquids discharged to water; or;
b) solids or liquids applied to the area;
must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of Measure	Volume/Mass Limit
43,50	megalitres per day	4.32
44,45,47,48,49	megalitres per day	

L3.2 For each discharge point or utilisation area specified below (by a point number), the flow rate of:
a) liquids discharged to water; or
b) solids or liquids applied to the area; must not exceed the flow rate specified by that discharge point or area.

Point	Unit of Measurement	Flow rate
43, 50	litres per second	50 litres per second

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.
This includes:
a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
a) must be maintained in a proper and efficient condition; and
b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 All operations and activities occurring at the premises must be carried out in a manner that minimises or prevents the emission of dust from the premises.

O4 Waste management

O4.1 The licensee must assess, classify and manage any waste generated at the premises in accordance with the Waste Classification Guidelines 2014 and the Act. Waste must be transported to a place that can lawfully accept that waste.

O4.2 Spoil material generated at the Premises can be transported on public roads between parts of the Premises providing that the material is not stored or placed outside of the Premises at any time. The transport of this

waste must comply with the Protection of the Environment Operations (Waste) Regulation 2014.

O5 Other operating conditions

Spoil Characterisation

O5.1 The Licensee must ensure that all samples collected for spoil characterisation are:
a. representative of the material currently being extracted from the specific area of the tunnel;
b. representative of the material contained in the 10m advance (currently defined block);
c. is not skewed by veins; and
d. corresponds to the material placed on the emplacement area.

Spoil Treatment

O5.2 All treatment of spoil including but not limited to the temporary storage of spoil, and treatment of Potentially Acid Forming (PAF) material and material at risk of resulting in Acid Mine Drainage or Neutral Mine Drainage, must be undertaken in a manner that:
a. achieves permanent neutralisation of the material;
b. prevents pollution of waters; and
c. prevents contamination of land.

O5.3 The Licensee must validate that all treated spoil material meets the requirements of condition O5.2.

Spoil Emplacement

O5.4 All spoil material must be emplaced in a manner that minimises air flow capacity and maximises neutralisation.

Spoil Leachate Management

O5.5 Prior to emplacing spoil on a particular spoil emplacement area, the Licensee must develop a leachate detection system which characterises the quality of any leachate being generated from within the emplacement areas.

O5.6 Within 2 weeks of developing the leachate detection system, the Licensee must provide a report detailing the findings and recommendations for the leachate detection system/s required by Condition O5.5 to info@epa.nsw.gov.au.

Spoil Management Contingencies

O5.7 The Licensee must maintain and implement a contingency plan in the event that characterisation, treatment, emplacement or leachate management does not meet the appropriate thresholds within the QAQC plan.

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5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
a) in a legible form, or in a form that can readily be reduced to a legible form;
b) kept for at least 4 years after the monitoring or event to which they relate took place; and
c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
a) the date(s) on which the sample was taken;
b) the time(s) at which the sample was collected;
c) the point at which the sample was taken; and
d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Water and/ or Land Monitoring Requirements

POINT 1,2,4,25

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium (dissolved)	micrograms per litre	Quarterly	Grab sample
Copper (dissolved)	micrograms per litre	Quarterly	Grab sample
Dissolved Oxygen	percent saturation	Quarterly	In situ
Electrical conductivity	microsiemens per centimetre	Quarterly	In situ
Iron (dissolved)	micrograms per litre	Quarterly	Grab sample
Lead (dissolved)	micrograms per litre	Quarterly	Grab sample
Manganese (dissolved)	micrograms per litre	Quarterly	Grab sample
Nickel (dissolved)	micrograms per litre	Quarterly	Grab sample
Nitrogen (total)	micrograms per litre	Quarterly	Grab sample
Oxidation Reduction Potential	millivolts	Quarterly	In situ
Reactive Phosphorus	micrograms per litre	Quarterly	Grab sample
Silver (dissolved)	micrograms per litre	Quarterly	Grab sample

Turbidity	nephelometric turbidity units	Quarterly	In situ
Zinc	micrograms per litre	Quarterly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium (dissolved)	milligrams per litre	Monthly	Grab sample
Copper (dissolved)	micrograms per litre	Monthly	Grab sample
Electrical conductivity	microsiemens per centimetre	Monthly	In situ
Iron (dissolved)	micrograms per litre	Monthly	Grab sample
Manganese (dissolved)	micrograms per litre	Monthly	Grab sample
Nickel (dissolved)	micrograms per litre	Monthly	Grab sample
Nitrogen (total)	micrograms per litre	Monthly	Grab sample
pH	pH	Monthly	In situ
Reactive Phosphorus	micrograms per litre	Monthly	Grab sample
Silver (dissolved)	micrograms per litre	Monthly	Grab sample
Zinc (dissolved)	micrograms per litre	Monthly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Arsenic (dissolved)	micrograms per litre	Monthly	Grab sample
Chromium (dissolved)	micrograms per litre	Monthly	Grab sample
Cyanide (total)	micrograms per litre	Monthly	Grab sample
Hardness (as calcium carbonate)	milligrams per litre	Monthly	Grab sample
Oil and Grease	milligrams per litre	Monthly	Grab sample
Phosphorus (total)	micrograms per litre	Monthly	Grab sample
Total Kjeldahl Nitrogen	micrograms per litre	Monthly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,59,60,61,62,63,64,65,66,67,71,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Total suspended solids	milligrams per litre	Monthly	Grab sample

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POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,59,60,61,62,63,64,65,66,67,71,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,106,107,108,109,110,111,112,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	micrograms per litre	Monthly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,59,60,61,62,63,64,65,66,67,71,76,84,85,86,98,99,100,101,106,107,108,109,110,111,112,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Turbidity	nephelometric turbidity units	Monthly	In situ

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Oxidised nitrogen	micrograms per litre	Monthly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,76

Pollutant	Units of measure	Frequency	Sampling Method
Oxidation Reduction Potential	millivolts	Monthly	In situ
Temperature	degrees Celsius	Monthly	In situ

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,76,84,85,86

Pollutant	Units of measure	Frequency	Sampling Method
Dissolved Oxygen	percent saturation	Monthly	In situ

POINT 10,11,28,41,50,51

Pollutant	Units of measure	Frequency	Sampling Method
BOD	milligrams per litre	Monthly	Grab sample
Faecal Coliforms	colony forming units per 100 millilitres	Monthly	Grab sample

POINT 36,37,52,53,54,55,59,60,61,62,63,64,65,66,67,71,76,84,85,86,106,107,108,109,110,111,112,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method

Nitrate + nitrite (oxidised nitrogen)	micrograms per litre	Monthly	Grab sample

POINT 50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,76,80,81,82,83,84,85, 86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111, 112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Lead (dissolved)	micrograms per litre	Monthly	Grab sample

POINT 52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70

Pollutant	Units of measure	Frequency	Sampling Method
Arsenic (total)	micrograms per litre	Monthly	Grab sample
Chromium (total)	micrograms per litre	Monthly	Grab sample
Copper (total)	micrograms per litre	Monthly	Grab sample
Lead (total)	micrograms per litre	Monthly	Grab sample
Nickel (total)	micrograms per litre	Monthly	Grab sample
Silver (total)	micrograms per litre	Monthly	Grab sample
Total Iron	micrograms per litre	Monthly	Grab sample
Total manganese	micrograms per litre	Monthly	Grab sample
Zinc (total)	micrograms per litre	Monthly	Grab sample

POINT 52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,72,73

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium (total)	micrograms per litre	Monthly	Grab sample

M3 Testing methods - concentration limits

M3.1 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M3.2 Condition M3.1 also applies to the monitoring of any points identified in Condition M2.2

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:
a) the date and time of the complaint;
b) the method by which the complaint was made;

c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
d) the nature of the complaint;
e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 The preceding two conditions do not apply until immediately from the date of the issue of this licence.

M6 Requirement to monitor volume or mass

M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:
a) the volume of liquids discharged to water or applied to the area;
b) the mass of solids applied to the area;
c) the mass of pollutants emitted to the air;
at the frequency and using the method and units of measure, specified below.

POINT 43,50

Frequency	Unit of Measure	Sampling Method
Continuous	megalitres per day	Ultrasonic flow meter

POINT 44,45,47,48,49

Frequency	Unit of Measure	Sampling Method
Continuous	megalitres per day	Ultrasonic flow meter

6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:
a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
a) the licence holder; or
b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.

Note: The Licensee or its employees (including any contractors engaged to undertake works on the Premises on behalf of the Licensee) must provide the EPA with comprehensive sampling results immediately after quality assurance quality control processes are completed, but no later than 14 days upon receipt of the results relating to any incidents notified in accordance with condition R2 of the Licence.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
a) where this licence applies to premises, an event has occurred at the premises; or
b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
a) the cause, time and duration of the event;
b) the type, volume and concentration of every pollutant discharged as a result of the event;
c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Other reporting conditions

R4.1 The licensee must notify the EPA within 24 hours by phone or in writing of any results from monitoring required by condition M2 that exceed the Australian and New Zealand Environment Conservation Council Guidelines and NSW Water Quality Objectives and caused by activities carried out by or on behalf of the Licensee.

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Environmental Monitoring Report

R4.2 By 30 June each year, the Licensee must submit an Environmental Monitoring Report which covers the preceding period of 1 December - 31 May, unless otherwise agreed in writing by the EPA.

R4.3 By 15 January each year, the Licensee must submit an Environmental Monitoring Report which covers the preceding period of 1 June - 30 November, unless otherwise agreed in writing by the EPA.

R4.4 The Environmental Monitoring Report must be prepared by a suitably qualified and experienced person and include, but not be limited to:
a) results of all water quality monitoring undertaken in the relevant preceding period nominated in Condition R4.2 and R4.3;
b) results of all weather monitoring undertaken in the relevant preceding period nominated in Condition R4.2 and R4.3;
c) assessment of historical trends in all water sampling data for each monitoring point inclusive of the relevant preceding period nominated in Condition R4.2 and R4.3;
d) identification of instances where the water quality objective triggers for each relevant pollutant were exceeded at receiving water locations and/or where the predicted discharge water quality was exceeded at sediment basin discharge points;
e) include details of any actions taken by the Licensee in response to exceedances identified under point (d), including but not limited to:
    i. additional monitoring
    ii. remedial actions; and
    iii. activation of trigger, action, response plans (TARPs);
f) recommendations for future actions in relation to monitoring and/or management
g) identification of any water quality monitoring that was not completed in compliance with Condition M2.2. This must include an appropriate justification for the non-compliance.

Quarterly Spoil Monitoring Report

R4.5 For each emplacement area (Main Yard, GF01, Tantangara, Rock Forest, Marica and Ravine Bay), the Licensee must provide a quarterly spoil monitoring report (The Spoil Monitoring Report). The Spoil Monitoring Report must be provided by:

1. 30 April each year for Quarter 1 of the calendar year (1 January - 31 March)
2. 31 July each year for Quarter 2 of the calendar year (1 April - 30 June)
3. 31 October each year for Quarter 3 of the calendar year (1 July - 30 September)
4. 31 January each year for Quarter 4 of the calendar year (1 October - 31 December)

R4.6 The Spoil Monitoring Report must be prepared by a suitably qualified and experienced person and include, but need not be limited to:

a) Quantities of spoil that has been emplaced (in m3)
b) Results of all spoil characterisation that has occurred in the quarter. Including but not limited to quantities

of:
i. Non-acid forming material (NAF)
ii. Acid neutralisation capacity material (ANC)
iii. Potentially acid forming material (PAF)
iv. Any other relevant spoil streams

c) Treatment undertaken on the emplaced spoil following the characterisation
d) Proof of validation of all treated spoil
e) Cumulative total volumes of spoil emplaced, including but not limited to:
i. Non-acid forming material (NAF)
ii. Acid neutralisation capacity material (ANC)
iii. Potentially acid forming material (PAF)
iv. Any other relevant spoil streams
f) Details of any actions taken by the Licensee in response to characterisation results to ensure appropriate emplacement or disposal of spoil. This may include but need not be limited to:
i. Additional treatment undertaken prior to emplacement
ii. Additional controls undertaken prior to emplacement
iii. Transporting spoil offsite to a lawful facility
iv. Activation of a relevant Trigger, Action, Response Plan (TARP)
v. Any other remedial actions
g) Leachate generated from the spoil emplacement area. This should include, but need not be limited to:
i. Volumes of leachate generated
ii. Quality of leachate generated (consistent with the parameters listed in condition M2.2
iii. Actions taken to manage the leachate generated
h) Recommendations for future actions in relation to characterisation, monitoring, treatment, and management of spoil, including leachate management

R4.7 The Spoil Monitoring Report must identify if any emplacement area nominated under Condition R4.5 has not had any spoil emplacement in the relevant quarter (i.e. emplacement has not yet commenced, has not occurred in the quarter or the emplacement has ceased in that area)

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Signage

G2.1 Each monitoring point in condition P1.2 must be clearly marked by a sign that indicates the EPA point identification number.

G3 Other general conditions

G3.1 **Completed Programs**

Program	Description	Completed Date
PRP 1 - Assessment of the water and contaminant management system at MAT spoil stockpile area	PRP to assess the water management system at MAT spoil stockpile area with a view of improving water management outcomes. PRP identified all CoC associated with TBM and stockpile placement and both short and long-term controls to be implemented in the future.	29-April-2022
PRP 2 - Diffuse Source Water Pollution Management	Licensee must undertake an assessment of all controls employed to manage the risk of diffuse source water pollution across the Premises.	24-January-2024
PRP 3 - Generator emission improvements program	A program to improve emissions from generators or decommission generators in accordance with the Clean Air Regulation.	09-February-2024
PRS 4 - Review of Process Water Treatment Plant	Program requires the Licensee to undertake an assessment of the PWTPs at the premises and make recommendations on improvements	03-July-2024
PRS 5 - Sampling Quality Assurance Quality Control Program	Program requires the Licensee to undertake an assessment of current water quality sampling methodology and make improvements. Includes provisions for a QAQC program.	29-May-2024

8 Pollution Studies and Reduction Programs

U1 Assessment of Water Reuse and Basin Maintenance Activities

U1.1 By 30.09.2025 the Licensee (and/or persons conducting business on behalf of the Licensee) must assess all water reuse activities (RA) used to manage project impacted water captured on the Premises. This must, at a minimum:

a) Be undertaken by a suitably qualified and independent person/s approved in consultation with the EPA
b) Assess all tributaries potentially impacted by RA across the Premises to identify the waterways most at risk of pollution.
c) Assess the suitability of all current RA *(e.g. spraying via water carts, irrigation, concrete batching works*) in accordance with Condition U1.2.
d) Assess the suitability of any activities relied on to manage basin capacity (including sediment basins, leachate basins and sumps), including but not limited to pumping water between basins and routine desilting activities in accordance with Condition U1.3
e) Provide reasonable and feasible recommendations to address any gaps identified under points a) to d) above. This must include appropriate short, medium and long term timeframes for completion of recommended actions.

U1.2 The assessment of the suitability of all current RA required by Condition U1.1 c) must consider, at a minimum:

i. The adequacy of current resources and infrastructure requirements for each RA for each Project Site. This must consider any water pollution incidents from the previous 12 months attributed to resourcing, application or infrastructure shortfalls.
ii. Procedures for undertaking RA in a manner that does not cause pollution of waters (*e.g. preventing sediment laden runoff via considering spray intensity, spray duration and over-spraying, contingency controls such as mulch bunds if discharges do occur*)
iii. Suitability of RA relied on for different inputs known to contain elevated potential contaminants (*e.g. leachate basins, sediment basins or treated process water*)
iv. Opportunities for improvements to resources, infrastructure, procedures and controls relating to all RA to prevent pollution of waters; and
v. Opportunities for additional RA to be implemented at the Premises to prevent pollution of waters and further reduce excess project impacted water.

U1.3 The assessment of the suitability of activities relied on to manage basin capacity required by Condition U1.1 d) must consider, at a minimum:

i. The adequacy of current resources and infrastructure requirements for each activity for each Project Site. This should consider any water pollution incidents from the previous 12 months attributed to resourcing, application or infrastructure shortfalls.
ii. Procedures for maintaining basin capacity, including but not limited to frequency and prioritisation of inspections, desilting activities and pollution control contingencies during maintenance activities to facilitate continuity of controls; and
iii. Opportunities for improvements to resources, infrastructure, procedures and controls relating to all activities, including additional activities to be implemented at the Premises in addition to current activities.

U1.4 By 1 December 2025, the Licensee must submit a report to the EPA documenting the findings of the assessment required under U1.1 above. The report must be submitted to info@epa.nsw.gov.au.

U1.5 By 19 December 2025 the Licensee must develop a Water Reuse Management Plan that provides clear procedures for optimising all water reuse activities in a manner that does not cause water pollution.

U1.6 By 15 January 2026, the Licensee must submit the management plan required under Condition U1.5 to the EPA. The report must be submitted via info@epa.nsw.gov.au

9 Special Conditions

E1 Verification of Mixing Zone Modelling

E1.1 The licensee must engage a suitably qualified and experienced person(s) to prepare a Mixing Zone Verification Program.

E1.2 At least 4 weeks prior to the first discharge of each of the sewage treatment plants and process water treatment plants, the licensee must submit a written plan for the Mixing Zone Verification Program to info@epa.nsw.gov.au. The plan for the Mixing Zone Verification Program must include, but need not be limited to:

a. Sampling locations
Sampling locations must be comparable to the key locations identified in *Attachment F Waste and Process Water Mixing Zone Assessment* (7 February 2020) of the *"Snowy 2.0 - Main Works - Response to Submissions Main Report - Appendix J Revised Water Management Report"* and capture ambient water quality;

b. Sampling frequency and duration
The frequency and duration of sampling must be adequate to capture the full range of receiving waterway conditions, including but not limited to, winds, current, temperature and rainfall, to allow modelling predictions under a range of scenarios to be verified;

c. Sampling depth
Sampling must allow for variations at depth under a range of scenarios (i.e. thermal stratification); and

d. Sampling parameters
The parameters must include, but need not be limited to:
   i. Total nitrogen;
   ii. Total phosphorus;
   iii. pH;
   iv. Biological Oxygen Demand;
   v. Nitrogen (ammonia);
   vi. Turbidity; and
   vii. Electrical Conductivity.

E1.3 Within 6 weeks of the first discharge from each sewage treatment plant and the process water treatment plants, the licensee must submit a **written progress report** for the Mixing Zone Verification Program to info@epa.nsw.gov.au.

E1.4 Upon completion of the Mixing Zone Verification Program (as per Condition E1.2 (b)), the licensee must submit a **written final report** detailing the results of the Mixing Zone Verification Program for each of the sewage treatment plants and process water treatment plants to info@epa.nsw.gov.au.

E1.5 The written progress report and final reports referred to in Condition E1.3 and E1.4 above must include, but need not be limited to:

a. a statement of the ambient NSW Water Quality Objectives (WQOs) of the receiving waters (Talbingo/Tantangara Reservoir) relevant to the discharge, including the associated indicators and guideline values or criteria for the identified environmental values;

b. a description of the ambient water quality of Talbingo/Tantangara Reservoir in relation to the relevant

WQOs, to determine whether the WQOs are being achieved;

c. ambient conditions (e.g. currents, temperature, density, storage level and thermal stratification processes);

d. discharge and release conditions including but not limited to:
   i. rate of discharge;
   ii. timing;
   iii. total volume;
   iv. water quality of discharge;

e. a description of the mixing zone, including the extent and shape of the mixing zone;

f. a comparison of point e. above with the modelled predications from *Attachment F Waste and Process Water Mixing Zone Assessment* (7 February 2020) of the *"Snowy 2.0 - Main Works - Response to Submissions Main Report - Appendix J Revised Water Management Report"* including discussion of the mixing zone modelling and whether the relevant guideline values are being met at the edge of the near-field mixing zone; and

g. a continuous improvement plan for managing wastewater discharge over time, so as to reduce the extent and impact of the mixing zone

Note: This program has been developed to verify the modelled water quality impacts on the Talbingo and Tantangara reservoir of the proposed discharge of treated effluent from the sewage treatment and process water treatment plants. The EPA intends to use this information to refine discharge criteria in this licence.

E2 Correlation Assessment - Faecal Coliforms

E2.1 The Licensee is permitted to undertake an assessment to trial the use of a membrane filtration method (in-field) for monitoring of faecal coliforms in the field. The assessment must:

1. Ensure that the in-field and laboratory samples are taken concurrently over a period of time that is sufficient to derive a statistically robust correlation between methods. Samples may be taken more frequently than the licence requires in order to achieve this if desired

2. Derive a statistical correlation between membrane filtration methods and the method currently used in compliance with the Approved Methods Publication

3. Ensure that appropriate quality control procedures are followed

4. Demonstrate the accuracy and reliability of the membrane filtration methods; and

5. Provide recommendations on an appropriate frequency of monitoring for the membrane filtration method.

E2.2 The Licensee must provide a written report detailing compliance with the above requirements to info@epa.nsw.gov.au following completion of the assessment.

E3 Lining requirements for the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas

E3.1 Prior to the emplacement of spoil at Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas (PSE), the Licensee must install a suitable engineered liner and drainage system that achieves a safe, stable and non-polluting landform, and separates any potential leachate from groundwater. The Licensee must:

1. evaluate and identify a suitable engineered liner and drainage system that achieves the aforementioned outcomes;

2. provide the EPA with the drainage design and technical liner specifications, including Construction Quality Assurance (CQA) plan and detailed design prior to installation;

3. design, construct, install and operate the liner and drainage system in accordance with the design specifications, including the Construction Quality Assurance (CAQ) plan;

4. engage an independent and suitably qualified person/s to develop a CQA report to verify that all liner and drainage construction and installation is in accordance with the design specifications committed to under point 2 above; and

5. in the event that a CQA report developed in accordance with point 4 above identifies that liner and drainage construction and installation is not in accordance with the design specifications committed to under point 2 above, the Licensee must immediately notify the EPA via info@epa.nsw.gov.au

E4 Capping Requirements for the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas

E4.1 Prior to the rehabilitation of the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas (PSE), the Licensee must install a suitable capping layer which fully encapsulates the PSEs, and minimises ingress of water into the PSEs. The capping layer must achieve a safe, stable and non-polluting landform. The Licensee must

1. evaluate and identify a suitable capping methodology that achieves the aforementioned outcomes;
2. provide the EPA with the final technical capping design specifications, including appropriate Quality Assurance (QA) and Quality Control (QC) plans and detailed design specifications prior to installation;
3. design, construct, and install the capping system in accordance with the design specifications; and,
4. provide QA/QC reports prepared by a suitably qualified person to the EPA following completion of the capping layer verifying achievement of the design specifications.

E5 Nitrogen Management Plan

E5.1 The licensee must prepare a Nitrogen Management Plan when undertaking blasting operations on the premises using Ammonium Nitrate Fuel Oil (ANFO) explosives or emulsions.

E5.2 The Nitrogen Management Plan must be developed in consultation with the EPA and must:

1. Specify how ANFO explosives will be selected, handled and used at the premises to minimise the impact of nitrate residues upon the surrounding environment;
2. Specify how nitrate residues from blasting activities will be monitored and managed by the licensee;
3. Specify arrangements for a suitable water sampling regime of surface water and ground water in the vicinity of all waste rock emplacement areas;
4. Specify how waste rock emplacement areas will be monitored, characterised and managed by the licensee; and
5. Specify how surface and groundwater impacts will be monitored and managed by the licensee.
6. Specify what remediation measures will be undertaken by the licensee in relation to any elevated nitrate residue levels.
7. Consider and include monitoring for all forms of nitrogen residues is soils, water and groundwater.

E5.3 The licensee must comply with the Nitrogen Management Plan.

E5.4 The licensee must monitor its compliance performance with the Nitrogen Management Plan and report any non-compliances to the EPA immediately.

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environmen t Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder describe d at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 mo nths. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.

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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste
Wellhead	Has the same meaning as in Schedule 1 to the Protection of the Environment Operations (General) Regulation 2021.

Ms Janine Goodwin

Environment Protection Authority

(By Delegation)

Date of this edition: 09-May-2019

Environment Protection Licence

Licence - 21266

End Notes

2	Licence varied by notice	1592053 issued on 02-Mar-2020
3	Licence varied by notice	1592566 issued on 08-Apr-2020
4	Licence varied by notice	1600132 issued on 16-Oct-2020
5	Licence varied by notice	1601912 issued on 02-Nov-2020
6	Licence varied by notice	1602469 issued on 18-Dec-2020
7	Licence varied by notice	1604232 issued on 08-Apr-2021
8	Licence varied by notice	1612017 issued on 30-Aug-2021
9	Licence varied by notice	1615458 issued on 14-Jan-2022
10	Licence varied by notice	1615931 issued on 09-Feb-2022
11	Licence varied by notice	1618696 issued on 13-May-2022
12	Licence varied by notice	1619252 issued on 31-May-2022
13	Licence varied by notice	1620013 issued on 06-Jul-2022
14	Licence varied by notice	1622035 issued on 05-Oct-2022
15	Licence varied by notice	1626611 issued on 06-Jun-2023
16	Licence varied by notice	1634101 issued on 28-Mar-2024
17	Licence varied by notice	1638603 issued on 20-Dec-2024

Environment Protection Licence

Licence - 21266

Licence Details	
Number:	21266
Anniversary Date:	09-May

Licensee

SNOWY HYDRO LIMITED

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

Scheduled Activity

Electricity generation

Fee Based Activity	Scale
Generation of electrical power otherwise than from coal, diesel or gas	> 4000 GWh annual generating capacity

Contact Us

NSW EPA

6 Parramatta Square

10 Darcy Street

PARRAMATTA NSW 2150

Phone: 131 555

Email: info@epa.nsw.gov.au

Locked Bag 5022

PARRAMATTA NSW 2124

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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

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The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

SNOWY HYDRO LIMITED
PO BOX 332
COOMA NSW 2630

subject to the conditions which follow.

Environment Protection Licence

Licence - 21266

1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2:
Main Works - Electricity Generation.

A1.2 There are seven (7) main stages to the scheduled development works at the premises listed in A2.

A1.3 Prior to commencing each stage (or subsection of that stage), the licensee must receive written approval from the EPA. The stages and their subsections are:

1. Process and sewage treatment plants (including diffuser installation):
    a. Lobs Hole
    b. Tantangara
    c. Marica

2. Construction facilities and internal access:
    a. Talbingo portal and construction support area
    b. Lobs Hole main yard
    c. ECVT portal (including cable yard and substations)
    d. MAT portal and construction support area
    e. Marica construction support areas
    f. Tantangara portal and construction support areas

3. Tunnelling and subsurface works:
    a. Talbingo adit and tailrace tunnel
    b. MAT
    c. ECVT
    d. Tailrace surge tank
    e. Headrace surge tank
    f. Headrace tunnel
    g. Tantangara adit

4. Reservoir works:
    a. Talbingo water intake and associated structures
    b. Talbingo barge launch
    c. Tantangara water intake and associated structures
    d. Tantangara barge launch

5. Spoil emplacement areas:
    a. Ravine Bay
    b. GFO1
    c. Lobs Hole
    d. Tantangara
    e. Rock Forest

6. Communication lines:
    a. MAT portal to Marica to Snowy Mountains Highway
    b. Snowy Mountains Highway to Tantangara Reservoir
    c. Tantangara Reservoir to Tantangara Road
    d. Link Road
    e. Link Road to Cabramurra

7. Road and bridge works:
    a. Lobs Hole Road North
    b. Ravine Road
    c. Tantangara Road
    d. Marica Road West
    e. Marica Trail

Note: For the purposes of Licence Condition A1.3, the following stages and subsections are deemed to have been approved by the EPA:

1. Process and sewage treatment plants (including diffuser installation):
    a. Lobs Hole;
    b. Tantangara;
    c. Marica.

2. Construction facilities and internal access:
    a. Talbingo portal and construction support area;
    b. Lobs Hole main yard;
    c. ECVT portal (including cable yard and substation);
    d. MAT portal and construction support areas;
    e. Marica portal and construction support areas;
    f. Tantangara portal and construction support areas.

3. Tunnelling and subsurface works:
    a. Talbingo adit and tailrace tunnel;
    b. MAT;
    c. ECVT;
    d. Tailrace surge tank;
    e. Headrace surge tank;
    f. Headrace surge tank;
    g. Tantangara adit;
    h. Marica adit.

5. Spoil emplacement areas:
    a. Ravine Bay;
    b. GF01;
    c. Lobs Hole;
    d. Tantangara;
    e. Rock Forest.

6. Communication lines:

a. MAT portal to Marica to Snowy Mountains Highway;
b. Snowy Mountains Highway to Tantangara Reservoir;

7. Road and bridge works:
a. Lobs Hole Road North;
b. Ravine Road;
c. Tantangara Road;
d. Marica Road West;
e. Marica Trail.

A1.4 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Electricity generation	Generation of electrical power otherwise than from coal, diesel or gas	> 4000 GWh annual generating capacity

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
SNOWY 2.0 PUMPED HYDRO POWER STATION TALBINGO AND TANTANGARA
KOSCIUSZKO NATIONAL PARK AND ROCK FOREST
KOSCIUSZKO
NSW 2642
PREMISES DEFINED BY: **SNOWY 2.0 MAIN WORKS INFRASTRUCTURE APPROVAL CSSI 9687 (20 MAY 2020): APPENDIX 1 – SCHEDULE OF LAND.**

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Ancillary Activity
Chemical Storage
Concrete Batching

Extractive Activities
Process Water Treatment
Road Construction and Maintenance
Sewage Treatment

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:
a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 For the purpose of the monitoring/discharge points tables below, "the Plan" refers to the plan titled 'Snowy Hydro 2.0 EPL Premises Plan' Version A, dated October 2024 and provided to the EPA on 6 December 2024 (DOC24/1008555).

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Groundwater Bore LOBS HOLE		Wallace Creek Bridge, west of ECVT portal, labelled EPL001 in "the Plan".
2	Groundwater Bore LOBS HOLE		Wallace Creek Bridge, west of ECVT portal, labelled EPL002 in "the Plan".
4	Groundwater Bore LOBS HOLE		Lobs Hole Portal Access, west of MAT portal, labelled EPL004 in "the Plan"

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5	Surface Water LOBS HOLE	Yarrangobilly River, upstream of the exploratory tunnel and construction pad, labelled EPL005 in "the Plan".
6	Surface Water LOBS HOLE	Wallaces Creek, upstream of the confluence of Yarrangobilly River and Wallaces Creek, labelled EPL006 in "the Plan".
8	Surface Water LOBS HOLE	Yarrangobilly River, downstream of Lick Hole Gully labelled EPL008 in "the Plan".
9	Surface Water LOBS HOLE	Yarrangobilly River, downstream of the accommodation camp and upstream of Talbingo Reservoir labelled EPL009 in "the Plan".
10	Surface Water TALBINGO RESERVOIR	Talbingo Reservoir, upstream of Lobs Hole STP/WTP diffuser outlet and water intake point labelled EPL010 in "the Plan".
11	Surface Water TALBINGO RESERVOIR	Talbingo Reservoir, downstream of Lobs Hole STP/WTP diffuser outlet labelled EPL011 in "the Plan".
12	Surface Water LOBS HOLE	Yarrangobilly River, immediately downstream of portal pad labelled EPL012 in "the Plan".
14	Surface Water LOBS HOLE	Yarrangobilly River, upstream of MY/LHG PSE labelled EPL014 in "the Plan".
15	Surface Water LOBS HOLE	Yarrangobilly River, downstream of road construction areas labelled EPL015 in "the Plan".
16	Surface Water LOBS HOLE	Yarrangobilly River, downstream of road construction areas labelled EPL016 in "the Plan".
24	Surface Water LOBS HOLE	Yarrangobilly River unnamed tributary, downslope of GFO1 PSE, labelled EPL024 in "the Plan".
25	Groundwater Bore LOBS HOLE	Monitoring well, downslope of MAT portal, labelled EPL025 in "the Plan".
26	Surface Water MARICA	Eucumbene River, downstream of Marica Road, labelled EPL026 in "the Plan".
27	Surface Water MARICA	Eucumbene River, upstream of Marica Road, labelled EPL027 in "the Plan".
28	Surface Water TANTANGARA	Tantangara Reservoir, upstream in the mouth of the Murrumbidgee River. Variable location dependent on tide and reservoir levels. Labelled EPL028 in "the Plan".
29	Surface Water TANTANGARA	Tantangara Reservoir, downstream of works area and upstream of lower Murrumbidgee River, labelled as EPL029 in "the Plan".

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30	Surface Water TANTANGARA		Kellys Plain Creek, downstream of accommodation camp and laydown areas, labelled EPL030 in "the Plan".
31	Surface Water TANTANGARA		Kellys Plain Creek, upstream of accommodation camp and laydown areas, labelled EPL031 in "the Plan".
32	Surface Water TANTANGARA		Tantangara Intake, downstream of construction works, labelled EPL032 in "the Plan".
33	Surface Water TANTANGARA		Murrumbidgee River, downstream of Tantangara reservoir outlet labelled EPL033 in "the Plan".
34	Surface Water TANTANGARA		Nungar Creek, upstream of Tantangara Road labelled EPL034 in "the Plan".
35	Surface Water TANTANGARA		Nungar Creek, downstream of Tantangara Road labelled EPL035 in "the Plan".
36	Surface Water ROCK FOREST		Camerons Creek, upstream of works in Rock Forest, labelled EPL036 in "the Plan".
37	Surface Water ROCK FOREST		Camerons Creek, downstream of works in Rock Forest, labelled EPL037 in "the Plan".
38	Surface Water TANTANGARA		Tantangara Reservoir, between emplacement area and ancillary facilities for emplacement activities. Variable location dependant on tide and reservoir levels. Labelled EPL038 in "the Plan".
39	Surface Water TANTANGARA		Confluence of Nungar Creek and Tantangara Reservoir, upstream of Tantangara construction works. Variable location dependent on tide and reservoir levels. Labelled EPL039 in "the Plan".
40	Surface Water TANTANGARA		Confluence of the upper Murrumbidgee River and Tantangara Reservoir, upstream of works. Variable location dependent on tide and reservoir levels. Labelled EPL040 in "the Plan".
41	Reverse Osmosis Plant TALBINGO		Lobs Hole Reverse Osmosis Plant Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Talbingo Reservoir. Labelled EPL041 in "the Plan".
42		Discharge to waters LOBS HOLE STP/PWTP TALBINGO	Diffuser outlet discharging into Talbingo Reservoir from Lobs Hole STP/WTP, labelled EPL042 in "the Plan".

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43	Volume outflow TALBINGO		Lobs Hole STP/WTP Final Volume Monitoring Point, downstream of final treatment, prior to discharge to Talbingo Reservoir. Labelled EPL043 in "the Plan".
44	Volume Inflow - PWTP TALBINGO		Lobs Hole WTP Inflow Volume Monitoring Point, labelled EPL044 in "the Plan".
45	Volume Inflow - Ex-Camp STP TALBINGO		Lobs Hole Ex-Camp STP Inflow Volume Monitoring Point, labelled EPL045 in "the Plan".
46		Discharge to waters TANTANGARA RESERVOIR	Diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP, labelled EPL046 in "the Plan".
47	Volume Inflow - Main Camp STP TALBINGO		Talbingo Main Camp STP Inflow Monitoring Point, labelled EPL047 in "the Plan".
48	Volume Inflow STP TANTANGARA		Tantangara STP Inflow Volume Monitoring Point, labelled EPL048 in "the Plan".
49	Volume Inflow PWTP TANTANGARA		Tantangara WTP Inflow Volume Monitoring Point, labelled EPL049 in "the Plan".
50	Reverse Osmosis Plant TANTANGARA		Tantangara Reverse Osmosis Plant final effluent quality and volume monitoring point, downstream of final treatment, prior to discharge to Tantangara reservoir. Labelled EPL050 in "the Plan".
51	Surface Water TANTANGARA		Tantangara Reservoir, downstream of Tantangara STP/WTP diffuser outlet. Labelled EPL051 in "the Plan".
52	Surface Water LOBS HOLE		Talbingo Reservoir, upstream of GF01 emplacement area GFO1 Leachate Basin, labelled EPL052 in "the Plan".
53	Surface Water LOBS HOLE		Talbingo Reservoir, upstream east of GF01 emplacement area, labelled EPL053 in "the Plan".
54	Surface Water LOBS HOLE		Talbingo Reservoir, upstream west of GF01 emplacement area, labelled EPL054 in "the Plan".
55	Surface Water LOBS HOLE		Yarrangobilly River, surface water downstream of GF01 emplacement area, labelled EPL055 in "the Plan".
56	Groundwater LOBS HOLE		Groundwater upstream east from GF01 emplacement area, labelled EPL056 in "the Plan".
57	Groundwater LOBS HOLE		Groundwater upstream west from GF01 emplacement area, labelled EPL057 in "the Plan".
58	Groundwater LOBS HOLE		Groundwater downgradient from GF01 emplacement area, labelled EPL058 in "the Plan".

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59	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB1, labelled EPL059 in "the Plan".
60	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB2, labelled EPL060 in "the Plan".
61	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB3, labelled EPL061 in "the Plan".
62	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB4, labelled EPL062 in "the Plan".
63	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB5, labelled EPL063 in "the Plan".
64	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB6, labelled EPL064 in "the Plan".
65	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-SB7, labelled EPL065 in "the Plan".
66	Surface Water TANTANGARA	Tantangara Leachate Basin Tan-SW-DSE, labelled EPL066 in "the Plan".
67	Surface Water TANTANGARA	Nungar Creek surface water downstream west from Tantangara emplacement area, labelled EPL067 in "the Plan".
68	Groundwater TANTANGARA	Groundwater downgradient east from Tantangara emplacement area, labelled EPL068 in "the Plan".
69	Groundwater TANTANGARA	Groundwater downgradient west from Tantangara emplacement area, labelled EPL069 in "the Plan".
70	Groundwater TANTANGARA	Groundwater upgradient from Tantangara emplacement area, labelled EPL070 in "the Plan".
71	Surface Water MARICA	Surface water downstream from Marica emplacement area, labelled EPL071 in "the Plan".
72	Groundwater MARICA	Groundwater upgradient from Marica emplacement area, labelled EPL072 in "the Plan".
73	Groundwater MARICA	Groundwater downgradient from Marica emplacement area, labelled EPL073 in "the Plan".
76	Surface Water ROCK FOREST	Rock Forest Leachate Basin, labelled EPL076 in "the Plan".
80	Groundwater LICK HOLE GULLY	Lick Hole Gully groundwater monitoring upgradient from Lick Hole Gully, labelled EPL080 in "the Plan".
81	Groundwater LICK HOLE GULLY	Lick Hole Gully groundwater monitoring downgradient from Lick Hole Gully, labelled EPL081 in "the Plan".

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82	Groundwater MAIN YARD	Main Yard groundwater monitoring upgradient from Main Yard emplacement area, labelled EPL082 in "the Plan".
83	Groundwater MAIN YARD	Groundwater monitoring downgradient from Main Yard emplacement area, labelled EPL083 in "the Plan".
84	Surface Water Main Yard	Main Yard leachate basin F8, labelled EPL084 in "the Plan".
85	Surface Water MAIN YARD	Main Yard leachate basin MY07, labelled EPL085 in "the Plan".
86	Surface Water LICK HOLE GULLY	Lick Hole Gully leachate basin LHG01, labelled EPL086 in "the Plan".
87	Groundwater MAIN YARD	Main Yard groundwater monitoring downgradient from Main Yard emplacement area, labelled EPL087 in "the Plan".
88	Groundwater MAIN YARD	Main Yard groundwater monitoring downgradient from Main Yard emplacement area, labelled EPL088 in "the Plan".
89	Groundwater LICK HOLE GULLY	Lick Hole Gully groundwater monitoring downgradient from GF01 emplacement area, labelled EPL089 in "the Plan".
90	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL090 in "the Plan".
91	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL091 in "the Plan".
92	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL092 in "the Plan".
93	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL093 in "the Plan".
94	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL094 in "the Plan".
95	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL095 in "the Plan".
96	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL096 in "the Plan".

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97	Groundwater GF01	GF01 groundwater monitoring downgradient from GF01 emplacement area, labelled EPL097 in "the Plan".
98	Surface Water GF01	Rock blanket diversion monitoring under GF01 Liner, labelled EPL098 in "the Plan".
99	Surface Water MARICA	Marica Leachate basin - Turkey's Nest, labelled EPL099 in "the Plan".
100	Surface Water MARICA	Marica Lower Leachate Basin USS Shaft, labelled EPL100 in "the Plan".
101	Surface Water MARICA	Marica Leachate Basin Spoil Pad, labelled EPL101 in "the Plan".
102	Groundwater MARICA	Groundwater monitoring associated with the Marica emplacement area on Marica Trail, adjacent MT06, labelled EPL102 in "the Plan".
103	Groundwater TANTANGARA	Upstream groundwater monitoring west of the Tantangara emplacement area, labelled EPL103 in "the Plan".
104	Groundwater TANTANGARA	Downslope groundwater monitoring east of the Tantangara emplacement area, labelled EPL104 in "the Plan".
105	Groundwater TANTANGARA	Downslope groundwater monitoring west of the Tantangara emplacement area, labelled EPL105 in "the Plan".
106	Surface Water RAVINE BAY	Ravine Bay Leachate basin 1, labelled EPL106 in "the Plan".
107	Surface Water RAVINE BAY	Upstream monitoring of Ravine Bay emplacement area within Yarrangobilly River, labelled EPL107 in "the Plan".
108	Surface Water RAVINE BAY	Monitoring of Ravine Bay emplacement area (centre of PSE) within Yarrangobilly River, labelled EPL108 in "the Plan".
109	Surface Water RAVINE BAY	Upstream monitoring of Ravine Bay emplacement area within Yarrangobilly River, labelled EPL109 in "the Plan".
110	Surface Water RAVINE BAY	Upstream monitoring of Ravine Bay emplacement area, labelled EPL110 in "the Plan".
111	Surface Water RAVINE BAY	Upstream monitoring of Ravine Bay emplacement area rock mattress, labelled EPL111 in "the Plan".
112	Surface Water RAVINE BAY	Downstream monitoring of Ravine Bay emplacement area rock mattress, labelled EPL112 in "the Plan".
113	Groundwater RAVINE BAY	Upstream east monitoring of Ravine Bay emplacement area, labelled EPL113 in "the Plan".

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114	Groundwater RAVINE BAY	Upstream west monitoring of Ravine Bay emplacement area, labelled EPL114 in "the Plan".
115	Groundwater RAVINE BAY	Downstream east monitoring of Ravine Bay emplacement area, labelled EPL115 in "the Plan".
116	Groundwater RAVINE BAY	Downstream west monitoring of Ravine Bay emplacement area, labelled EPL116 in "the Plan".
117	Groundwater RAVINE BAY	Downstream monitoring of the Ravine Bay emplacement area, labelled EPL117 in "the Plan".
118	Surface Water RAVINE BAY	Ravine Bay Leachate basin 2, labelled EPL118 in "the Plan".
119	Surface Water RAVINE BAY	Ravine Bay Leachate basin 3, labelled EPL119 in "the Plan".
120	Surface Water RAVINE BAY	Ravine Bay Leachate basin 4, labelled EPL120 in "the Plan".
122	Surface Water GFO1	GFO1 Drainage Line (formerly EPL 55b), labelled EPL122 in "the Plan".

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\s.

L2.4 Water and/or Land Concentration Limits

POINT 41,50

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit

BOD	milligrams per litre	2		5

POINT 41

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Electrical conductivity	microsiemens per centimetre				700

POINT 41,50

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Faecal Coliforms	colony forming units per 100 millilitres		10		100
Nitrogen (ammonia)	milligrams per litre		0.2		2
Nitrogen (total)	milligrams per litre		0.35		
Oil and Grease	milligrams per litre		2		5
pH	pH				6.5-8.5
Phosphorus (total)	milligrams per litre		0.1		0.3
Total suspended solids	milligrams per litre		5		10

POINT 50

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Electrical conductivity	microsiemens per centimetre				200

L3 Volume and mass limits

L3.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:
a) liquids discharged to water; or;
b) solids or liquids applied to the area;
must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of Measure	Volume/Mass Limit
43,50	megalitres per day	4.32
44,45,47,48,49	megalitres per day	

L3.2 For each discharge point or utilisation area specified below (by a point number), the flow rate of:
a) liquids discharged to water; or
b) solids or liquids applied to the area; must not exceed the flow rate specified by that discharge point or area.

Point	Unit of Measurement	Flow rate
43, 50	litres per second	50 litres per second

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.
This includes:
a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
a) must be maintained in a proper and efficient condition; and
b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 All operations and activities occurring at the premises must be carried out in a manner that minimises or prevents the emission of dust from the premises.

O4 Waste management

O4.1 The licensee must assess, classify and manage any waste generated at the premises in accordance with the Waste Classification Guidelines 2014 and the Act. Waste must be transported to a place that can lawfully accept that waste.

O4.2 Spoil material generated at the Premises can be transported on public roads between parts of the Premises providing that the material is not stored or placed outside of the Premises at any time. The transport of this

waste must comply with the Protection of the Environment Operations (Waste) Regulation 2014.

O5 Other operating conditions

Spoil Characterisation

O5.1 The Licensee must ensure that all samples collected for spoil characterisation are:
a. representative of the material currently being extracted from the specific area of the tunnel;
b. representative of the material contained in the 10m advance (currently defined block);
c. is not skewed by veins; and
d. corresponds to the material placed on the emplacement area.

Spoil Treatment

O5.2 All treatment of spoil including but not limited to the temporary storage of spoil, and treatment of Potentially Acid Forming (PAF) material and material at risk of resulting in Acid Mine Drainage or Neutral Mine Drainage, must be undertaken in a manner that:
a. achieves permanent neutralisation of the material;
b. prevents pollution of waters; and
c. prevents contamination of land.

O5.3 The Licensee must validate that all treated spoil material meets the requirements of condition O5.2.

Spoil Emplacement

O5.4 All spoil material must be emplaced in a manner that minimises air flow capacity and maximises neutralisation.

Spoil Leachate Management

O5.5 Prior to emplacing spoil on a particular spoil emplacement area, the Licensee must develop a leachate detection system which characterises the quality of any leachate being generated from within the emplacement areas.

O5.6 Within 2 weeks of developing the leachate detection system, the Licensee must provide a report detailing the findings and recommendations for the leachate detection system/s required by Condition O5.5 to info@epa.nsw.gov.au.

Spoil Management Contingencies

O5.7 The Licensee must maintain and implement a contingency plan in the event that characterisation, treatment, emplacement or leachate management does not meet the appropriate thresholds within the QAQC plan.

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5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
a) in a legible form, or in a form that can readily be reduced to a legible form;
b) kept for at least 4 years after the monitoring or event to which they relate took place; and
c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
a) the date(s) on which the sample was taken;
b) the time(s) at which the sample was collected;
c) the point at which the sample was taken; and
d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Water and/ or Land Monitoring Requirements

POINT 1,2,4,25

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium (dissolved)	micrograms per litre	Quarterly	Grab sample
Copper (dissolved)	micrograms per litre	Quarterly	Grab sample
Dissolved Oxygen	percent saturation	Quarterly	In situ
Electrical conductivity	microsiemens per centimetre	Quarterly	In situ
Iron (dissolved)	micrograms per litre	Quarterly	Grab sample
Lead (dissolved)	micrograms per litre	Quarterly	Grab sample
Manganese (dissolved)	micrograms per litre	Quarterly	Grab sample
Nickel (dissolved)	micrograms per litre	Quarterly	Grab sample
Nitrogen (total)	micrograms per litre	Quarterly	Grab sample
Oxidation Reduction Potential	millivolts	Quarterly	In situ
Reactive Phosphorus	micrograms per litre	Quarterly	Grab sample
Silver (dissolved)	micrograms per litre	Quarterly	Grab sample

Turbidity	nephelometric turbidity units	Quarterly	In situ
Zinc	micrograms per litre	Quarterly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium (dissolved)	milligrams per litre	Monthly	Grab sample
Copper (dissolved)	micrograms per litre	Monthly	Grab sample
Electrical conductivity	microsiemens per centimetre	Monthly	In situ
Iron (dissolved)	micrograms per litre	Monthly	Grab sample
Manganese (dissolved)	micrograms per litre	Monthly	Grab sample
Nickel (dissolved)	micrograms per litre	Monthly	Grab sample
Nitrogen (total)	micrograms per litre	Monthly	Grab sample
pH	pH	Monthly	In situ
Reactive Phosphorus	micrograms per litre	Monthly	Grab sample
Silver (dissolved)	micrograms per litre	Monthly	Grab sample
Zinc (dissolved)	micrograms per litre	Monthly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Arsenic (dissolved)	micrograms per litre	Monthly	Grab sample
Chromium (dissolved)	micrograms per litre	Monthly	Grab sample
Cyanide (total)	micrograms per litre	Monthly	Grab sample
Hardness (as calcium carbonate)	milligrams per litre	Monthly	Grab sample
Oil and Grease	milligrams per litre	Monthly	Grab sample
Phosphorus (total)	micrograms per litre	Monthly	Grab sample
Total Kjeldahl Nitrogen	micrograms per litre	Monthly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,59,60,61,62,63,64,65,66,67,71,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Total suspended solids	milligrams per litre	Monthly	Grab sample

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POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,59,60,61,62,63,64,65,66,67,71,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,106,107,108,109,110,111,112,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	micrograms per litre	Monthly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,52,53,54,55,59,60,61,62,63,64,65,66,67,71,76,84,85,86,98,99,100,101,106,107,108,109,110,111,112,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Turbidity	nephelometric turbidity units	Monthly	In situ

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,50,51,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Oxidised nitrogen	micrograms per litre	Monthly	Grab sample

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,76

Pollutant	Units of measure	Frequency	Sampling Method
Oxidation Reduction Potential	millivolts	Monthly	In situ
Temperature	degrees Celsius	Monthly	In situ

POINT 5,6,8,9,10,11,12,14,15,16,24,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,76,84,85,86

Pollutant	Units of measure	Frequency	Sampling Method
Dissolved Oxygen	percent saturation	Monthly	In situ

POINT 10,11,28,41,50,51

Pollutant	Units of measure	Frequency	Sampling Method
BOD	milligrams per litre	Monthly	Grab sample
Faecal Coliforms	colony forming units per 100 millilitres	Monthly	Grab sample

POINT 36,37,52,53,54,55,59,60,61,62,63,64,65,66,67,71,76,84,85,86,106,107,108,109,110,111,112,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method

Nitrate + nitrite (oxidised nitrogen)	micrograms per litre	Monthly	Grab sample

POINT 50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,76,80,81,82,83,84,85, 86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111, 112,113,114,115,116,117,118,119,120,122

Pollutant	Units of measure	Frequency	Sampling Method
Lead (dissolved)	micrograms per litre	Monthly	Grab sample

POINT 52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70

Pollutant	Units of measure	Frequency	Sampling Method
Arsenic (total)	micrograms per litre	Monthly	Grab sample
Chromium (total)	micrograms per litre	Monthly	Grab sample
Copper (total)	micrograms per litre	Monthly	Grab sample
Lead (total)	micrograms per litre	Monthly	Grab sample
Nickel (total)	micrograms per litre	Monthly	Grab sample
Silver (total)	micrograms per litre	Monthly	Grab sample
Total Iron	micrograms per litre	Monthly	Grab sample
Total manganese	micrograms per litre	Monthly	Grab sample
Zinc (total)	micrograms per litre	Monthly	Grab sample

POINT 52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,72,73

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium (total)	micrograms per litre	Monthly	Grab sample

M3 Testing methods - concentration limits

M3.1 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M3.2 Condition M3.1 also applies to the monitoring of any points identified in Condition M2.2

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:
a) the date and time of the complaint;
b) the method by which the complaint was made;

c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
d) the nature of the complaint;
e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 The preceding two conditions do not apply until immediately from the date of the issue of this licence.

M6 Requirement to monitor volume or mass

M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:
a) the volume of liquids discharged to water or applied to the area;
b) the mass of solids applied to the area;
c) the mass of pollutants emitted to the air;
at the frequency and using the method and units of measure, specified below.

POINT 43,50

Frequency	Unit of Measure	Sampling Method
Continuous	megalitres per day	Ultrasonic flow meter

POINT 44,45,47,48,49

Frequency	Unit of Measure	Sampling Method
Continuous	megalitres per day	Ultrasonic flow meter

6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:
a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
a) the licence holder; or
b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.

Note: The Licensee or its employees (including any contractors engaged to undertake works on the Premises on behalf of the Licensee) must provide the EPA with comprehensive sampling results immediately after quality assurance quality control processes are completed, but no later than 14 days upon receipt of the results relating to any incidents notified in accordance with condition R2 of the Licence.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
a) where this licence applies to premises, an event has occurred at the premises; or
b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
a) the cause, time and duration of the event;
b) the type, volume and concentration of every pollutant discharged as a result of the event;
c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Other reporting conditions

R4.1 The licensee must notify the EPA within 24 hours by phone or in writing of any results from monitoring required by condition M2 that exceed the Australian and New Zealand Environment Conservation Council Guidelines and NSW Water Quality Objectives and caused by activities carried out by or on behalf of the Licensee.

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Environmental Monitoring Report

R4.2 By 30 June each year, the Licensee must submit an Environmental Monitoring Report which covers the preceding period of 1 December - 31 May, unless otherwise agreed in writing by the EPA.

R4.3 By 15 January each year, the Licensee must submit an Environmental Monitoring Report which covers the preceding period of 1 June - 30 November, unless otherwise agreed in writing by the EPA.

R4.4 The Environmental Monitoring Report must be prepared by a suitably qualified and experienced person and include, but not be limited to:
a) results of all water quality monitoring undertaken in the relevant preceding period nominated in Condition R4.2 and R4.3;
b) results of all weather monitoring undertaken in the relevant preceding period nominated in Condition R4.2 and R4.3;
c) assessment of historical trends in all water sampling data for each monitoring point inclusive of the relevant preceding period nominated in Condition R4.2 and R4.3;
d) identification of instances where the water quality objective triggers for each relevant pollutant were exceeded at receiving water locations and/or where the predicted discharge water quality was exceeded at sediment basin discharge points;
e) include details of any actions taken by the Licensee in response to exceedances identified under point (d), including but not limited to:
    i. additional monitoring
    ii. remedial actions; and
    iii. activation of trigger, action, response plans (TARPs);
f) recommendations for future actions in relation to monitoring and/or management
g) identification of any water quality monitoring that was not completed in compliance with Condition M2.2. This must include an appropriate justification for the non-compliance.

Quarterly Spoil Monitoring Report

R4.5 For each emplacement area (Main Yard, GF01, Tantangara, Rock Forest, Marica and Ravine Bay), the Licensee must provide a quarterly spoil monitoring report (The Spoil Monitoring Report). The Spoil Monitoring Report must be provided by:

1. 30 April each year for Quarter 1 of the calendar year (1 January - 31 March)
2. 31 July each year for Quarter 2 of the calendar year (1 April - 30 June)
3. 31 October each year for Quarter 3 of the calendar year (1 July - 30 September)
4. 31 January each year for Quarter 4 of the calendar year (1 October - 31 December)

R4.6 The Spoil Monitoring Report must be prepared by a suitably qualified and experienced person and include, but need not be limited to:

a) Quantities of spoil that has been emplaced (in m3)
b) Results of all spoil characterisation that has occurred in the quarter. Including but not limited to quantities

of:
i. Non-acid forming material (NAF)
ii. Acid neutralisation capacity material (ANC)
iii. Potentially acid forming material (PAF)
iv. Any other relevant spoil streams

c) Treatment undertaken on the emplaced spoil following the characterisation
d) Proof of validation of all treated spoil
e) Cumulative total volumes of spoil emplaced, including but not limited to:
i. Non-acid forming material (NAF)
ii. Acid neutralisation capacity material (ANC)
iii. Potentially acid forming material (PAF)
iv. Any other relevant spoil streams
f) Details of any actions taken by the Licensee in response to characterisation results to ensure appropriate emplacement or disposal of spoil. This may include but need not be limited to:
i. Additional treatment undertaken prior to emplacement
ii. Additional controls undertaken prior to emplacement
iii. Transporting spoil offsite to a lawful facility
iv. Activation of a relevant Trigger, Action, Response Plan (TARP)
v. Any other remedial actions
g) Leachate generated from the spoil emplacement area. This should include, but need not be limited to:
i. Volumes of leachate generated
ii. Quality of leachate generated (consistent with the parameters listed in condition M2.2
iii. Actions taken to manage the leachate generated
h) Recommendations for future actions in relation to characterisation, monitoring, treatment, and management of spoil, including leachate management

R4.7 The Spoil Monitoring Report must identify if any emplacement area nominated under Condition R4.5 has not had any spoil emplacement in the relevant quarter (i.e. emplacement has not yet commenced, has not occurred in the quarter or the emplacement has ceased in that area)

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Signage

G2.1 Each monitoring point in condition P1.2 must be clearly marked by a sign that indicates the EPA point identification number.

G3 Other general conditions

G3.1 **Completed Programs**

Program	Description	Completed Date
PRP 1 - Assessment of the water and contaminant management system at MAT spoil stockpile area	PRP to assess the water management system at MAT spoil stockpile area with a view of improving water management outcomes. PRP identified all CoC associated with TBM and stockpile placement and both short and long-term controls to be implemented in the future.	29-April-2022
PRP 2 - Diffuse Source Water Pollution Management	Licensee must undertake an assessment of all controls employed to manage the risk of diffuse source water pollution across the Premises.	24-January-2024
PRP 3 - Generator emission improvements program	A program to improve emissions from generators or decommission generators in accordance with the Clean Air Regulation.	09-February-2024
PRS 4 - Review of Process Water Treatment Plant	Program requires the Licensee to undertake an assessment of the PWTPs at the premises and make recommendations on improvements	03-July-2024
PRS 5 - Sampling Quality Assurance Quality Control Program	Program requires the Licensee to undertake an assessment of current water quality sampling methodology and make improvements. Includes provisions for a QAQC program.	29-May-2024

8 Pollution Studies and Reduction Programs

U1 Assessment of Water Reuse and Basin Maintenance Activities

U1.1 By 30.09.2025 the Licensee (and/or persons conducting business on behalf of the Licensee) must assess all water reuse activities (RA) used to manage project impacted water captured on the Premises. This must, at a minimum:

a) Be undertaken by a suitably qualified and independent person/s approved in consultation with the EPA
b) Assess all tributaries potentially impacted by RA across the Premises to identify the waterways most at risk of pollution.
c) Assess the suitability of all current RA *(e.g. spraying via water carts, irrigation, concrete batching works*) in accordance with Condition U1.2.
d) Assess the suitability of any activities relied on to manage basin capacity (including sediment basins, leachate basins and sumps), including but not limited to pumping water between basins and routine desilting activities in accordance with Condition U1.3
e) Provide reasonable and feasible recommendations to address any gaps identified under points a) to d) above. This must include appropriate short, medium and long term timeframes for completion of recommended actions.

U1.2 The assessment of the suitability of all current RA required by Condition U1.1 c) must consider, at a minimum:

i. The adequacy of current resources and infrastructure requirements for each RA for each Project Site. This must consider any water pollution incidents from the previous 12 months attributed to resourcing, application or infrastructure shortfalls.
ii. Procedures for undertaking RA in a manner that does not cause pollution of waters (*e.g. preventing sediment laden runoff via considering spray intensity, spray duration and over-spraying, contingency controls such as mulch bunds if discharges do occur*)
iii. Suitability of RA relied on for different inputs known to contain elevated potential contaminants (*e.g. leachate basins, sediment basins or treated process water*)
iv. Opportunities for improvements to resources, infrastructure, procedures and controls relating to all RA to prevent pollution of waters; and
v. Opportunities for additional RA to be implemented at the Premises to prevent pollution of waters and further reduce excess project impacted water.

U1.3 The assessment of the suitability of activities relied on to manage basin capacity required by Condition U1.1 d) must consider, at a minimum:

i. The adequacy of current resources and infrastructure requirements for each activity for each Project Site. This should consider any water pollution incidents from the previous 12 months attributed to resourcing, application or infrastructure shortfalls.
ii. Procedures for maintaining basin capacity, including but not limited to frequency and prioritisation of inspections, desilting activities and pollution control contingencies during maintenance activities to facilitate continuity of controls; and
iii. Opportunities for improvements to resources, infrastructure, procedures and controls relating to all activities, including additional activities to be implemented at the Premises in addition to current activities.

U1.4 By 1 December 2025, the Licensee must submit a report to the EPA documenting the findings of the assessment required under U1.1 above. The report must be submitted to info@epa.nsw.gov.au.

U1.5 By 19 December 2025 the Licensee must develop a Water Reuse Management Plan that provides clear procedures for optimising all water reuse activities in a manner that does not cause water pollution.

U1.6 By 15 January 2026, the Licensee must submit the management plan required under Condition U1.5 to the EPA. The report must be submitted via info@epa.nsw.gov.au

9 Special Conditions

E1 Verification of Mixing Zone Modelling

E1.1 The licensee must engage a suitably qualified and experienced person(s) to prepare a Mixing Zone Verification Program.

E1.2 At least 4 weeks prior to the first discharge of each of the sewage treatment plants and process water treatment plants, the licensee must submit a written plan for the Mixing Zone Verification Program to info@epa.nsw.gov.au. The plan for the Mixing Zone Verification Program must include, but need not be limited to:

a. Sampling locations
Sampling locations must be comparable to the key locations identified in *Attachment F Waste and Process Water Mixing Zone Assessment* (7 February 2020) of the *"Snowy 2.0 - Main Works - Response to Submissions Main Report - Appendix J Revised Water Management Report"* and capture ambient water quality;

b. Sampling frequency and duration
The frequency and duration of sampling must be adequate to capture the full range of receiving waterway conditions, including but not limited to, winds, current, temperature and rainfall, to allow modelling predictions under a range of scenarios to be verified;

c. Sampling depth
Sampling must allow for variations at depth under a range of scenarios (i.e. thermal stratification); and

d. Sampling parameters
The parameters must include, but need not be limited to:
   i. Total nitrogen;
   ii. Total phosphorus;
   iii. pH;
   iv. Biological Oxygen Demand;
   v. Nitrogen (ammonia);
   vi. Turbidity; and
   vii. Electrical Conductivity.

E1.3 Within 6 weeks of the first discharge from each sewage treatment plant and the process water treatment plants, the licensee must submit a **written progress report** for the Mixing Zone Verification Program to info@epa.nsw.gov.au.

E1.4 Upon completion of the Mixing Zone Verification Program (as per Condition E1.2 (b)), the licensee must submit a **written final report** detailing the results of the Mixing Zone Verification Program for each of the sewage treatment plants and process water treatment plants to info@epa.nsw.gov.au.

E1.5 The written progress report and final reports referred to in Condition E1.3 and E1.4 above must include, but need not be limited to:

a. a statement of the ambient NSW Water Quality Objectives (WQOs) of the receiving waters (Talbingo/Tantangara Reservoir) relevant to the discharge, including the associated indicators and guideline values or criteria for the identified environmental values;

b. a description of the ambient water quality of Talbingo/Tantangara Reservoir in relation to the relevant

WQOs, to determine whether the WQOs are being achieved;

c. ambient conditions (e.g. currents, temperature, density, storage level and thermal stratification processes);

d. discharge and release conditions including but not limited to:
   i. rate of discharge;
   ii. timing;
   iii. total volume;
   iv. water quality of discharge;

e. a description of the mixing zone, including the extent and shape of the mixing zone;

f. a comparison of point e. above with the modelled predications from *Attachment F Waste and Process Water Mixing Zone Assessment* (7 February 2020) of the *"Snowy 2.0 - Main Works - Response to Submissions Main Report - Appendix J Revised Water Management Report"* including discussion of the mixing zone modelling and whether the relevant guideline values are being met at the edge of the near-field mixing zone; and

g. a continuous improvement plan for managing wastewater discharge over time, so as to reduce the extent and impact of the mixing zone

Note: This program has been developed to verify the modelled water quality impacts on the Talbingo and Tantangara reservoir of the proposed discharge of treated effluent from the sewage treatment and process water treatment plants. The EPA intends to use this information to refine discharge criteria in this licence.

E2 Correlation Assessment - Faecal Coliforms

E2.1 The Licensee is permitted to undertake an assessment to trial the use of a membrane filtration method (in-field) for monitoring of faecal coliforms in the field. The assessment must:

1. Ensure that the in-field and laboratory samples are taken concurrently over a period of time that is sufficient to derive a statistically robust correlation between methods. Samples may be taken more frequently than the licence requires in order to achieve this if desired

2. Derive a statistical correlation between membrane filtration methods and the method currently used in compliance with the Approved Methods Publication

3. Ensure that appropriate quality control procedures are followed

4. Demonstrate the accuracy and reliability of the membrane filtration methods; and

5. Provide recommendations on an appropriate frequency of monitoring for the membrane filtration method.

E2.2 The Licensee must provide a written report detailing compliance with the above requirements to info@epa.nsw.gov.au following completion of the assessment.

E3 Lining requirements for the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas

E3.1 Prior to the emplacement of spoil at Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas (PSE), the Licensee must install a suitable engineered liner and drainage system that achieves a safe, stable and non-polluting landform, and separates any potential leachate from groundwater. The Licensee must:

1. evaluate and identify a suitable engineered liner and drainage system that achieves the aforementioned outcomes;

2. provide the EPA with the drainage design and technical liner specifications, including Construction Quality Assurance (CQA) plan and detailed design prior to installation;

3. design, construct, install and operate the liner and drainage system in accordance with the design specifications, including the Construction Quality Assurance (CAQ) plan;

4. engage an independent and suitably qualified person/s to develop a CQA report to verify that all liner and drainage construction and installation is in accordance with the design specifications committed to under point 2 above; and

5. in the event that a CQA report developed in accordance with point 4 above identifies that liner and drainage construction and installation is not in accordance with the design specifications committed to under point 2 above, the Licensee must immediately notify the EPA via info@epa.nsw.gov.au

E4 Capping Requirements for the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas

E4.1 Prior to the rehabilitation of the Ravine Bay, Tantangara and Rock Forest Permanent Spoil Emplacement Areas (PSE), the Licensee must install a suitable capping layer which fully encapsulates the PSEs, and minimises ingress of water into the PSEs. The capping layer must achieve a safe, stable and non-polluting landform. The Licensee must

1. evaluate and identify a suitable capping methodology that achieves the aforementioned outcomes;
2. provide the EPA with the final technical capping design specifications, including appropriate Quality Assurance (QA) and Quality Control (QC) plans and detailed design specifications prior to installation;
3. design, construct, and install the capping system in accordance with the design specifications; and,
4. provide QA/QC reports prepared by a suitably qualified person to the EPA following completion of the capping layer verifying achievement of the design specifications.

E5 Nitrogen Management Plan

E5.1 The licensee must prepare a Nitrogen Management Plan when undertaking blasting operations on the premises using Ammonium Nitrate Fuel Oil (ANFO) explosives or emulsions.

E5.2 The Nitrogen Management Plan must be developed in consultation with the EPA and must:

1. Specify how ANFO explosives will be selected, handled and used at the premises to minimise the impact of nitrate residues upon the surrounding environment;
2. Specify how nitrate residues from blasting activities will be monitored and managed by the licensee;
3. Specify arrangements for a suitable water sampling regime of surface water and ground water in the vicinity of all waste rock emplacement areas;
4. Specify how waste rock emplacement areas will be monitored, characterised and managed by the licensee; and
5. Specify how surface and groundwater impacts will be monitored and managed by the licensee.
6. Specify what remediation measures will be undertaken by the licensee in relation to any elevated nitrate residue levels.
7. Consider and include monitoring for all forms of nitrogen residues is soils, water and groundwater.

E5.3 The licensee must comply with the Nitrogen Management Plan.

E5.4 The licensee must monitor its compliance performance with the Nitrogen Management Plan and report any non-compliances to the EPA immediately.

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environmen t Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder describe d at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 mo nths. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.

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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste
Wellhead	Has the same meaning as in Schedule 1 to the Protection of the Environment Operations (General) Regulation 2021.

Ms Janine Goodwin

Environment Protection Authority

(By Delegation)

Date of this edition: 09-May-2019

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End Notes

2	Licence varied by notice	1592053 issued on 02-Mar-2020
3	Licence varied by notice	1592566 issued on 08-Apr-2020
4	Licence varied by notice	1600132 issued on 16-Oct-2020
5	Licence varied by notice	1601912 issued on 02-Nov-2020
6	Licence varied by notice	1602469 issued on 18-Dec-2020
7	Licence varied by notice	1604232 issued on 08-Apr-2021
8	Licence varied by notice	1612017 issued on 30-Aug-2021
9	Licence varied by notice	1615458 issued on 14-Jan-2022
10	Licence varied by notice	1615931 issued on 09-Feb-2022
11	Licence varied by notice	1618696 issued on 13-May-2022
12	Licence varied by notice	1619252 issued on 31-May-2022
13	Licence varied by notice	1620013 issued on 06-Jul-2022
14	Licence varied by notice	1622035 issued on 05-Oct-2022
15	Licence varied by notice	1626611 issued on 06-Jun-2023
16	Licence varied by notice	1634101 issued on 28-Mar-2024
17	Licence varied by notice	1638603 issued on 20-Dec-2024
18	Licence varied by notice	1648456 issued on 23-Jul-2025