



Application for Licence Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L9155/2018/1
Licence Holder	Avoca Mining Pty Ltd
ACN	108 547 217
File Number	DER2018/001153~5
Premises	Higginsville Gold Project HIGGINSVILLE, WA, 6443 M15/351, M15/289, M15/225, M15/642, M15/348, M15/31, M15/786, M15/506, M15/507, M15/620, M15/629, M15/639, M15/640, M15/580, M15/581, M15/597, L15/225, L15/288, L15/302, G15/19, G15/23, M15/528, M15/231, M15/748, M15/512, M15/352, M15/610, M15/375, M15/338, M15/1790, M15/1814, L15/282, L15/347, G15/26, G15/27, G15/29, L15/382, L15/389, M15/325, M15/681 and M15/817.
Date of Report	22 September 2021
Decision	Revised licence granted

**A/Manager, Resource Industries
REGULATORY SERVICES**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Licence L9155/2018/1 is held by Avoca Mining Pty Ltd (Licence Holder) for the Higginsville Gold Project (the Premises), located at HIGGINSVILLE, WA, 6443 on mining tenements M15/351, M15/289, M15/225, M15/642, M15/348, M15/31, M15/786, M15/506, M15/507, M15/620, M15/629, M15/639, M15/640, M15/580, M15/581, M15/597, L15/225, L15/288, L15/302, G15/19, G15/23, M15/528, M15/231, M15/748, M15/512, M15/352, M15/610, M15/375, M15/338, M15/1790, M15/1814, L15/282, L15/347, G15/26, G15/27, G15/29, L15/382, L15/389, M15/325, M15/681 and M15/817.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L9155/2018/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application Summary

On 16 April 2021, the Licence Holder submitted an application to the department to amend Licence L9155/2018/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- increase the capacity of category 6 (mine dewatering) to 5,515,000 tonnes per year. This increase has been requested to allow for the continued discharge from Baloo Pit to Lake Cowan and at an increased rate. The pipeline from the Baloo pit to the lake discharge point is to be upgraded to cater for the additional flow. It has been confirmed by the Licence Holder that a larger diameter pipe (350mm) is to be fitted to facilitate the increased discharge of water but otherwise the control measures for the discharge are unchanged.
- Review the Groundwater Seepage Management Plan and incorporate into the Licence (as applicable). The Groundwater Seepage Management Plan was updated in July 2021 and includes the new seepage recovery and monitoring bore network. The numbering of the bores does not exactly match the current numbering on the Licence so the Licence will be amended to reflect the numbering used on the premises.
- Remove condition 1.2.8, which limited the deposition into the amalgamated tailings storage facility (TSF) cell TSF2-4 until 26 October 2021 and required a report to be submitted by 26 July 2021 demonstrating that the proposed controls had adequately managed seepage. The report was submitted in July 2021.
- Remove condition 2.2.2 which only granted discharge to Lake Cowan from Lake Baloo until 26 April 2021 and required a full set of monitoring results as required by condition 3.2.2 to be provided by that date. The licence holder has provided the report '*Lake Cowan biological survey and discharge assessment 2020*' from Stantec detailing the biological study and risk assessment of the dewatering discharge to Lake Cowan. This report meets the requirements of condition 2.2.2 and 3.2.2 of the licence. Dewatering of the pit is expected to be continued for approximately 1 year from this assessment.

- Updating Table 1.2.2 with the current names and liners of ponds within the processing plant.

This amendment is limited only to changes to Category 5 and 6 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Categories 54 and 64 have been requested by the Licence Holder.

Table 1 below outlines the proposed changes to the existing Licence.

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
5	1,500,000 tonnes per year	1,500,000 tonnes per year	<p>Row 7 of Table 1.2.2 be amended to refer to the Seepage water pond, lined with HDPE.</p> <p>Rows 8 and 9 added referring to the process and raw water ponds, both HDPE lined.</p> <p>Removal of condition 1.2.8: no longer required as the seepage management report showed improvements in the groundwater mounding at the TSF.</p> <p>Update the bore schedule in Table 3.5.1 to include the bores installed as required by Table 1.2.6.</p>
6	3,587,000 tonnes per year	5,515,000 tonnes per year	<p>Increase the capacity of category 6 to 5,515,000 tonnes per year. To allow for increase to 3,615,000 tonnes per year for Lake Cowan discharge from Baloo pit. There is no change to the discharge (1,900,000 tonnes) via G1 and G2.</p> <p>Remove condition 2.2.2 that limits the timeframe of the discharge to Lake Cowan.</p>

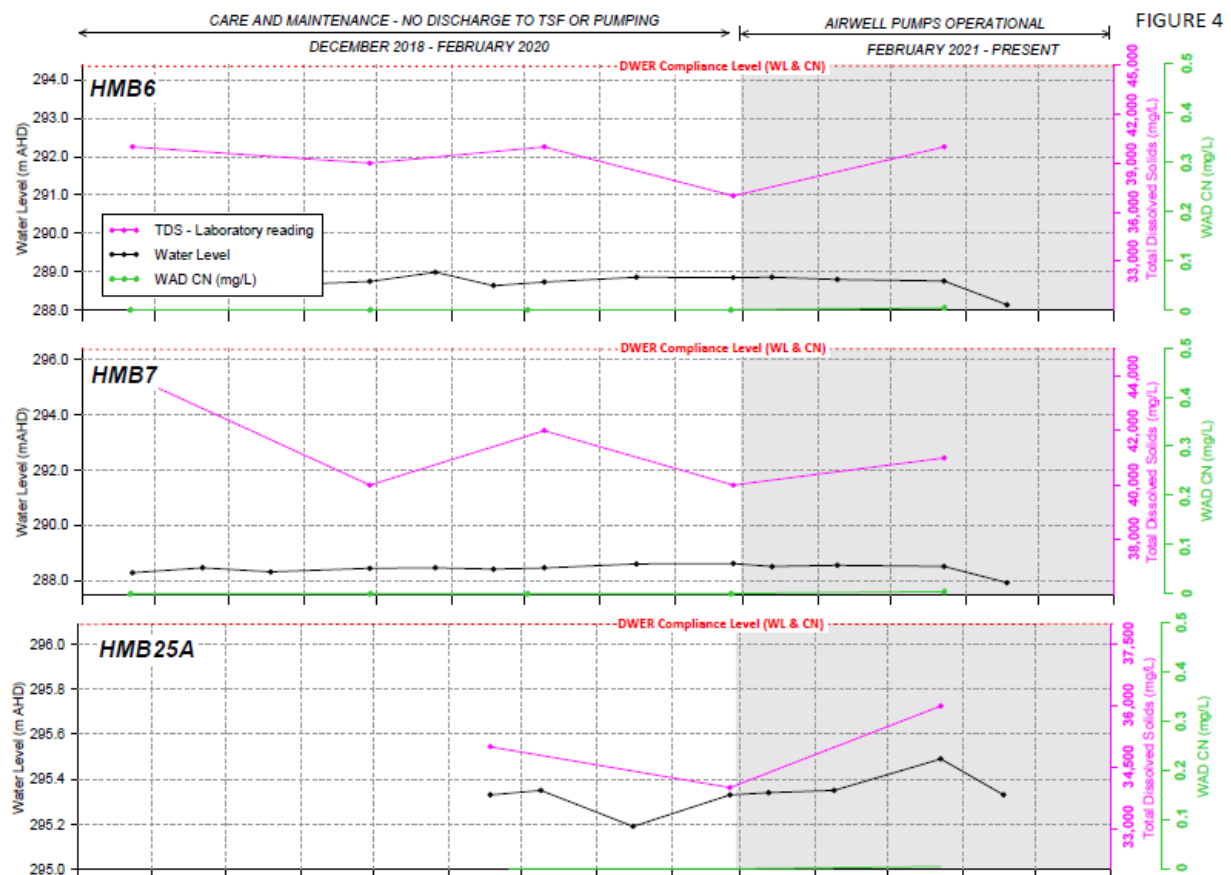
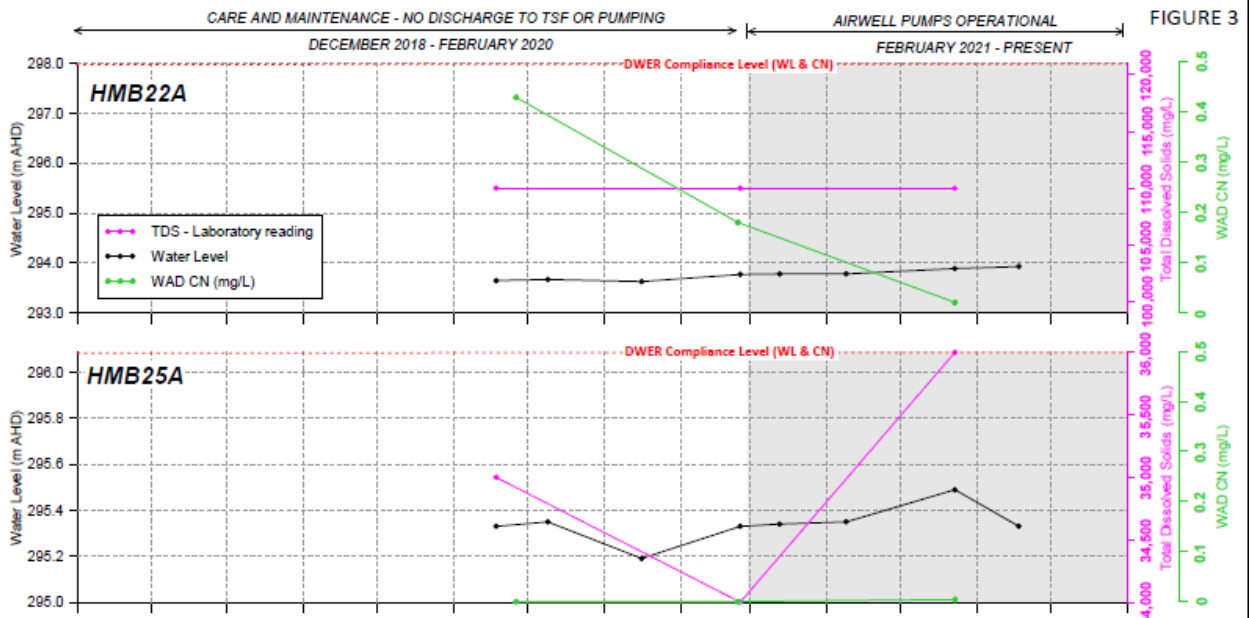
2.3 DWER initiated amendments

As part of this amendment, as a result of compliance inspections of Higginsville Gold Project, the Department has included the following DWER initiated amendments:

- Removal of conditions 1.2.9 as geotechnical considerations of the TSF are outside the scope of Part V licensing.
- Inclusion of telemetry as a discharge control measure for pipelines in condition 1.2.1. Compliance inspection by DWER has recognized that telemetry is widely used on the premises and it is appropriate to be reflected in the licence condition.
- Update Table 1.2.6 to remove construction requirements for completed infrastructure.
- Replace Schedule 1, Figure 11 with the TSF 2 as built diagram included in the '*TSF2 Stage 1 Embankment Raise Construction: Higginsville Gold Operations Construction Report*' (29 January 2021).

2.4 Review of report on recovery of groundwater seepage

A report was provided to the Department in July 2021 (Rockwater, July 2021a) that assessed the results of the seepage recovery for the TSF 2-4 as established under the Premises' Groundwater Recovery and Seepage Management Plan (Rockwater, July 2021b). The report was sufficient to demonstrate that there has been a reduction in standing water levels across most monitoring bores except for the bores HMB22A and HMB28 (Figure 1) as a result of implementing the seepage recovery measures. The increases in bores HMB22A and HMB28 was not significant enough to exceed the licence limit of 4 metres below ground level (mbgl).



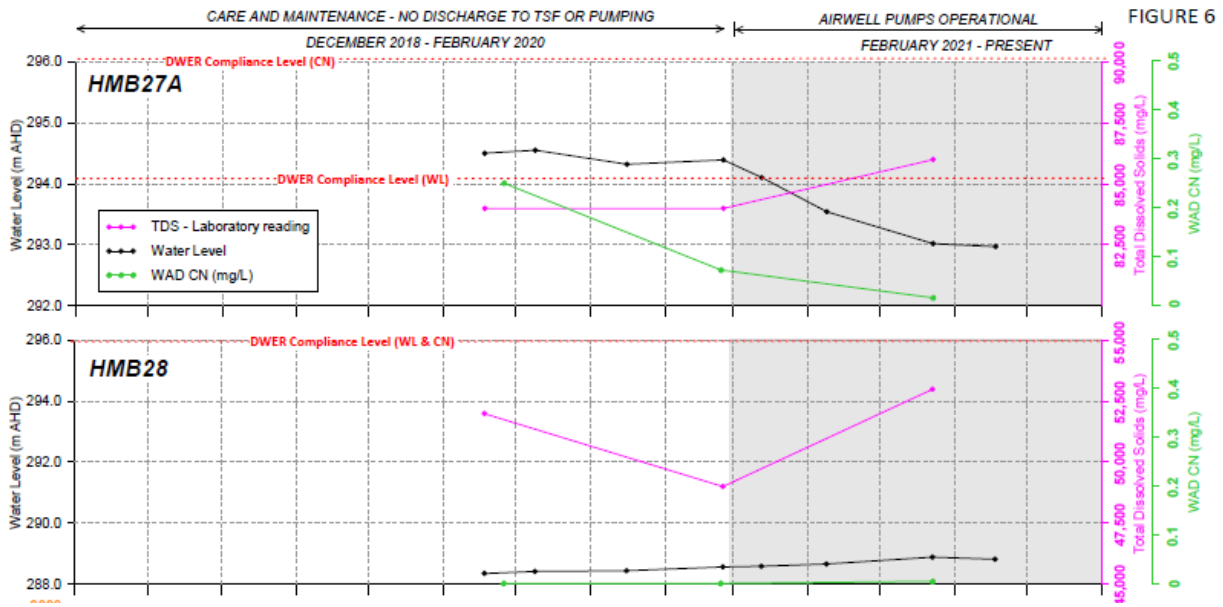
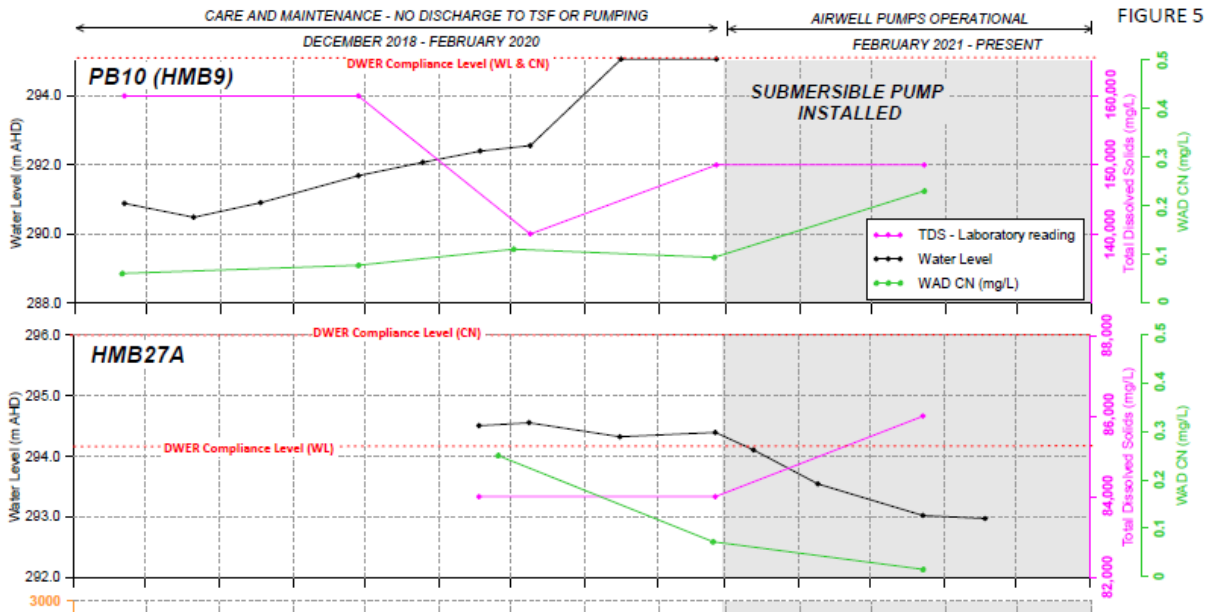


Figure 1: Water levels in m RL (black lines) as compared to licence limit

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 22 below. Table 22 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Saline water	Dewatering of Baloo Pit to Lake Cowan	Direct discharge to lake surface	<p>Replacement of current pipeline to a larger diameter pipe (350mm) to facilitate the larger discharge of water. This will not require new areas of disturbance or increased emissions from the premises.</p> <p>Securing of the pipeline as advised by Stantec 2021.</p> <p>All other controls in regard to the position of the outlet (Figure 5 of Schedule 1 of the licence) and energy diffuser will remain as currently approved.</p> <p>The period of discharge is expected to be limited in timeframe to approximately 12 months after this assessment.</p>
Leachate	Discharge of tailings to TSF 2-4	Seepage to soils and groundwater	<p>A recovery bore network was installed under Licence condition 1.2.6, Table 1.2.6. 11 recovery bores (PB1-5, PB7-9, PB11-13) were installed in October-November 2020 to control groundwater levels along the southern and eastern margins of the TSF. Two existing monitoring bores (HMB9, HMB14) can also be pumped for this purpose.</p> <p>A monitoring bore network of 11 bores (HMB1, HMB3, HMB4, HMB5, HMB6, HMB7, HMB9, HMB22A, HMB25A, HMB27A, HMB28A) including four (HMB22A, HMB25A, HMB27A, HMB28A) added under Licence condition 1.2.6, Table 1.2.6. Monitoring condition 3.5.1 on the Licence sets a 4 mbgl limit to standing water level and 0.5mg/L limit for weak acid</p>

Emission	Sources	Potential pathways	Proposed controls
			<p>dissociable cyanide. If the limits are exceeded then the Licence Holder must record and investigate the results.</p> <p>A seepage recovery trench running along the southern and eastern boundary of TSF 2-4.</p> <p>Management of seepage recovery under a Groundwater Recovery and Seepage Management Plan (GRSMP) last updated July 2021. The primary measures included in the GRSMP are:</p> <ul style="list-style-type: none"> • Targets for groundwater level reductions at groundwater monitoring bores listed in the GRSMP; • Timeframes to meet groundwater level reduction targets; • Details of groundwater extraction and discharge requirements; • Demarcation of seepage (plumes) currently under and around the TSF; and • Management strategies to prevent further seepage from occurring.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
The nearest community of Widgiemooltha	approximately 30 km northwest of the Premises
Environmental receptors	Distance from prescribed activity
Priority Flora	Priority 3 <i>Diocirea acutifolia</i> is within the premises boundary. Application states 'not present within area subject to the proposed operations. Species both widespread and recorded in large numbers'.
Binaronca Nature Reserve	3.6 km northwest of the plant.
Lake Cowan, associated aquatic biota and	Currently dewatering directly into Lake Cowan from

riparian vegetation	<p>the Baloo pit. (Figure 2)</p> <p>The TSF 2-4 is approximately 4.5 km from Lake Cowan (Figure 3).</p> <p>Lake Cowan is a major ephemeral playa salt lake extending approximately 90 km long and 20 km wide. Surface water and groundwater at Higginsville eventually discharges into this system.</p> <p>Mostly neutral pH (7-8.4) and hypersaline with an average EC of 218,000 $\mu\text{S}/\text{cm}$, which represents supersaturated conditions.</p>
Native vegetation	<p>Directly adjacent to dewatering infrastructure (pipelines).</p>
Groundwater	<p>Groundwater is commonly recorded to be approximately 15 mbgl with the water table becoming shallower to approximately 5 mbgl towards the playa lakes.</p> <p>Groundwater levels at the Premises, near the surface of Lake Cowan, lie at a depth of about 0.4 mbgl.</p> <p>Groundwater from the Baloo deposit and surrounding area is hypersaline, with salinity ranging from 310,000 to 330,000 mg/L TDS.</p> <p>Background groundwater quality at TSF 2-4 is saline to hypersaline, ranging from 16,000 mg/L TDS in HMB2 to 45,000 mg/L TDS in HMB5. In bores 2, 3 and 9 the concentration of WAD cyanide has risen up to 2.2 mg/L.</p> <p>The historical water levels at TSF 2-4 were 16 – 24 mbgl. In the vicinity of the TSF the levels have risen due to seepage to less than 4 mbgl in some bores.</p> <p>All registered groundwater bores within and surrounding the prescribed premises are registered for use by the Licence Holder. There are no other groundwater users within 2 km of the prescribed premises boundary.</p>



Figure 2: Dewatering discharge point in relation to Lake Cowan reference points



Figure 3: Distance of TSF 2-4 from Lake Cowan

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the Licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Licence L9155/2018/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. Category 5, 6, 54 and 64 activities.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Operation								
Additional discharge of mine dewater from Baloo pit	Mine dewater with elevated soluble metal(loid)s. pH of discharge is slightly acidic (6-6.75).	Direct discharge into Lake Cowan Alteration of sediment quality impacting on biota hatching rates; trophic transfer impacts from metal exposure to higher order species (waterbirds)	Lake Cowan aquatic biota (diatoms, invertebrates), water birds.	Refer to Section 5.1	C = Minor L = Possible Medium Risk	Y	Conditions 3.2.1 and 3.2.2 Monitoring of the water quality as discharged to Lake Cowan and impacts to the biota of the lake.	Refer to Section 3.3
	Excessive salt loading associated with discharge	Pipeline failure leading to uncontrolled discharge at areas other than the authorised discharge point.	Riparian vegetation. Aquatic biota within Lake Cowan.	Refer to Section 5.1	C = Slight L = Possible Low Risk	Y	Condition 1.2.1 Pipelines to include automatic shut off, telemetry or secondary containment.	N/A
Continued discharge of tailings to TSF 2-4	Leachate	Seepage associated with additional input through base and embankments of TSF to soil and groundwater	Rootzones of native vegetation and Lake Cowan (4.5km east of TSF).	Refer to Section 3.1	C = Moderate L = Possible Medium Risk	Y	<u>Existing conditions</u> 1.2.4 (freeboard and seepage) 1.2.2 (infrastructure requirements) 1.2.3 (freeboard and seepage recovery) 3.4.1 (process monitoring) 3.5.1 (ambient environmental	Refer to Section 2.4 for the review of the current performance of the GRSMP. The risk of seepage was assessed under the previous licence amendment and conditions added requiring actions

Licence: L9155/2018/1

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
							monitoring) <u>Conditions to be removed or amended as</u> requirements have been met met 1.2.6 (installation of additional groundwater monitoring bores and recovery bores) 1.2.8 (demonstrating seepage management)	that have now been met. Meeting the requirements of conditions 1.2.6 and 1.2.8 has reduced the risk from High to Medium as the likelihood of the risk is reduced from Likely to Possible.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

3.3 Detailed risk assessment for increased discharge of dewatering to Lake Cowan

Background

The following points are the approvals regarding the discharge to Lake Cowan from Baloo Pit:

- Dewatering operations from the Baloo Pit to Lake Cowan were granted under amendment notice 2 on 16 May 2019. This initial discharge was expected to be up to 1,000,000 kL and for a period of 9 – 18 months. The dewatering was granted as per the volumes applied for.
- On 9 June 2020 an application to amend the licence was made for an increase in dewatering from Baloo Pit to 1,800,000kL (2,169,000 tonnes per annual period) for a time period up to the end of Quarter 1 2021. The amendment to the licence granted 26 October 2020 only partially approved this, authorising an additional 800,000 tonnes per annual period only. Under condition 2.2.2, the additional discharge was to cease as of 26 April 2021 and the Licence Holder was required to submit a full set of monitoring results as required by condition 3.2.2. The total discharge permitted under this licence amendment was 3,587,000 tonnes per annual period.
- This application for amendment was received 16 April 2021. It provided the report required under licence condition 2.2.2 and requested that the total volume permitted under Category 6 be increased to 5,515,000 tonnes per annual period and a larger diameter pipeline is proposed to be fitted to facilitate this increase.

Risk assessment

The requirement under the previous amendment to the licence for a full report of monitoring results, as per Condition 3.2.2, was met with the submission in February 2021 of the Stantec report: *Lake Cowan biological survey and discharge assessment 2020* (Stantec 2021). The Stantec report provided the following conclusions on risk to Lake Cowan from the impacts of a continued dewatering discharge at a rate 3,000,00 kL per annual period:

The inherent and residual risk rankings for each of these potential impacts were classified as low. This was mainly based on the following existing or proposed controls:

- The additional volume of discharge water and associated salts is likely to be negligible to minor in comparison to the lake's surface area and natural salt storage;
- The area of salt crust likely to be created by discharge will also be minor compared to the surface area of the lake (<0.2%), during dry conditions;
- The lake has relatively low productivity and associated ecological values due to infrequent flooding, with the discharge water preventing emergence of aquatic biota under dry conditions, limiting exposure pathways to any potential contaminants;
- Aquatic biota are likely inherently resilient to naturally high salt and metal concentrations, attributed to infrequent flood events and the geological setting of the catchment;
- Major flood events are likely to naturally attenuate salt and metal loads via dilution and dispersal, supported by the review of satellite imagery; and
- The location and design of the Baloo discharge infrastructure is appropriate for the increased discharge volume (Appendix B), with some additional measures recommended, including the securing of pipelines and continuation of daily infrastructure and discharge data inspections.

The Stantec 2021 report was reviewed by the Department for its compliance with Condition 3.2.2 and to determine whether the conclusions on the risks of discharge of dewatering to Lake Cowan were supported by the study results. The report was found to be compliant with Condition 3.2.2 however the conclusion that the risk to Lake Cowan biota is low/minor did not take into

consideration the cumulative impacts of other dewatering discharges to the Lake. This lack of consideration of other discharges to the Lake could potentially raise the risk to moderate using the risk matrix used in the study. However, the cumulative impacts of other discharges to the Lake may be reduced during the expected time of discharge as the other major dewatering discharger to Lake Cowan, the Norseman Gold Project (Norseman Gold), licence L8612/2011/1, has not been discharging to the Lake since 2015. Norseman Gold is unlikely to commence operating in the immediate future and possibly not until after the expected discharge from Baloo Pit has ceased.

Given the discharge is not the only discharge that has been approved on Lake Cowan, the likelihood of cumulative impacts has been assessed as **possible**. The consequence rating has been assessed as **minor**, that is, off site impacts to Lake Cowan as a result of the discharge are likely to be minimal. The level of risk is therefore assessed as **medium** by the Department.

The requirement for ongoing monitoring of the dewatering impacts to the Lake as assessed through Condition 3.2.2 provides for the measurement of potential impacts from the discharge and the limit to throughput restricts the volume of discharge to that assessed for this amendment.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Licence Holder was provided with draft amendment on (16/09/2021)	Refer to Appendix 1	Refer to Appendix 1

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
1.2.2, Table 1.2.2	Row 7: Renaming of Decant Water Pond to Seepage Water Pond and update infrastructure requirements. Add rows 8 and 9 Numbering of figures updated as necessary
1.2.6, Table 1.2.6	Remove rows relating to infrastructure already constructed and reports provided and approved.
1.2.8	Remove as the required report has been submitted

1.2.9	Remove as the management of erosion of TSF banks is not within the scope of regulation by Part V of the <i>EP Act 1986</i>
2.2.2	Remove as required report has been submitted
3.5.1, Table 3.5.1	Updated with new monitoring bores of TSFs 2-4 and Fariplay East In-Pit
Schedule 1	Figure 8 updated Figure 11 replaced with as built plan indicating Decant position Figure 12 replaced with clearer plan showing proposed Stage 2 crest height and decant structure

References

1. Avoca Mining Pty Ltd 2021, application and supporting documentation: DER2018/001153~5.
2. Bennelongia 2016, Salt Lake Ecology Survey, DWER reference: A1722109.
3. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
4. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
5. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
6. Rockwater July 2021a, Report on recovery of groundwater seepage, Perth, Western Australia, DWER reference: DWERDT482598.
7. Rockwater July 2021b, Groundwater recovery and seepage management plan, Perth, Western Australia, DWER reference A2031925.
8. Stantec 2021, Lake Cowan biological survey and discharge assessment 2020, DWER reference: A1997387.

Appendix 1: Summary of Licence Holder's comments on risk assessment and draft conditions

Condition	Summary of Licence Holder's comment	Department's response
Decision report	<p>There are no residential receptors nearer than the townsite of Widgemooltha to the premise.</p> <p>The discharge pipeline on Lake Cowan from Baloo was secured following the Stantec fieldwork. However, this pipeline has become slightly dislodged following winter rainfall. It will be fully secured again once the pipeline has been upgraded (diameter 350mm) as assessed in this amendment.</p>	<p>The close human receptors were a drafting error and have been removed.</p> <p>The securing of the pipeline has been noted.</p>
Table 1.2.6	The TSF 2 (prior to cell amalgamation) section could be removed from Table 1.2.6 of the licence as Karora completed Stage 1 on TSF2 and now has almost completed the Stage 2 with the amalgamation of TSF2-4	The section has been removed. The requirement for an operational 300mm freeboard is covered under condition 1.2.4
Table 3.5.1	Change the numbering of the bores in the SWL monitoring row of the table to HMB22A, HMB25A, HMB27A, HMB28A and FPEMB4.	Bore numbers changed.
Condition 4.2.3	Remove Section 4.2.3 (b), (d) & (e) as this was completed once the seepage recovery bores were installed as part of the infrastructure verification report submitted to DWER.	Sections of condition removed.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L9155/2018/1	
		Relevant works approval number:	N/A	<input checked="" type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:	None	<input type="checkbox"/>
Date application received	16/04/2021			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Avoca Mining Pty Ltd (ACN 108 547 217)			
Premises name	Higginsville Gold Operations			
Premises location	Existing premises: Baloo Pit and Lake Cowan discharge on M15/1814; and TSF 2-4 (seepage recovery network) on M15/348, G15/19 and G15/26, HIGGINSVILLE WA 6443			
Local Government Authority	Shire of Coolgardie			
Application documents				
HPCM file reference number:	DER2018/001153~5			
Key application documents (additional to application form):	Supporting Information: Baloo Dewatering & Seepage Recovery Network as well as: Attachment 1A – Tenement Summary Report Attachment 1C – Letter of Authority Attachment 2 – Premises Maps Attachment 8 – Proposed fee calculator Appendix A – Premises Maps Appendix B – Tenement Summary Report Appendix C – Rockwater Seepage Recovery Investigation Appendix D – Rockwater Groundwater Recovery and Seepage			

	Management Plan Appendix E – Rockwater Recovery Monitoring Bore Completion Report Appendix F – Stantec Lake Cowan Discharge Study Appendix G – Bennelongia Salt Lake Ecological Survey Appendix H – AQ2 Water Management Report Appendix I – GHD Higginsville Biological Report Appendix J – AHIS tenement summary Appendix K – HGO Risk Assessment Appendix L – TSF Operating Manual	
Scope of application/assessment		
Summary of proposed activities or changes to existing operations.	Licence amendment to increase the capacity of category 6 to 5,515,000 tonnes per year; review the Groundwater Seepage Management Plan and incorporate into the Licence (as applicable); and remove conditions 1.2.8 and 2.2.2. The pipeline from the pit to the lake discharge point will be upgraded to cater for the additional flow (system already has controls).	
Category number/s (activities that cause the premises to become prescribed premises)		
Table 1: Prescribed premises categories		
Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 5: Processing or beneficiation of metallic or non-metallic ore	1,500,000 tonnes per year	No change
Category 6: Mine dewatering	3,587,000 tonnes per year	Total discharge will = 5,515,000 tonnes per year Increase to 3,615,000 tonnes per year for Lake Cowan discharge from Baloo pit 1,900,000 tonnes via G1 and G2 (no change)
Category 54: Sewage facility	No more than 200 m ³ /day	No change
Category 64: Class I or II putrescible landfill site	20 tonnes or more per year	No change
Legislative context and other approvals		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>

Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: Expiry date: If N/A explain why? Mining tenure
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Licence/permit No: GWL160795(8) and GWL202728(3)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Name: Goldfields Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: Swan Avon
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <u>WQPN 25</u>)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

<p>Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Mining Act 1978 Mining Proposal Reg ID 89308 Environmental Protection (Unauthorised Discharges) Regulations 2004</p>
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Classification: possibly contaminated – investigation required (PC–IR) Date of classification: 14/11/2008</p>