



Application for Licence Amendment

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

Licence Number	L4328/1989/10
Licence Holder	MARBL Lithium Operations Pty Ltd
ACN	637 077 608
File Number	APP-0027592
Premises	Wodgina Lithium Project M45/49, M45/50-I, M45/254, M45/353, M45/365-I, M45/381, M45/382, M45/383-I, M45/886, M45/887-I, M45/888, M45/950-I, M45/923-I, M45/924-I, M45/925-I, M45/949, M45/1188-I, M45/1252-I, G45/290, G45/291, G45/321 and L45/443 MARBLE BAR WA 6760 As depicted in Schedule 1 of the Revised Licence
Date of Report	24 June 2025 (FINAL)
Decision	Revised licence granted

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1. Decision summary

Licence L4328/1989/10 is held by MARBL Lithium Operations Pty Ltd (licence holder) for the Wodgina Lithium Project (the Premises), located on mining tenements defined on the cover of this report. Tenement L45/443 has been added this amendment.

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, including new minor construction works. As a result of this assessment, Revised Licence L4328/1989/10 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 20 February 2025, the licence holder applied to amend Licence L4328/1989/10 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Authorise ongoing operation of Anson A & B Pits (constructed and commissioned under W6734/2022/1)
- Expand the Prescribed Premises Boundary to include all W6734/2022/1 tenements
- Remove TSF3E as an active facility
- Increase Category 85B production/ design capacity including a new desalination plant

This amendment is limited only to changes to Category 5 and 85B activities from the Existing Licence. No changes to the aspects relating to Category 52, 54, 57 or 64 have been requested by the licence holder.

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

Table 1: Proposed design or throughput capacity changes

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
5: Processing or beneficiation of metallic or non-metallic ore	8,750,000 tonnes per annual period	8,750,000 tonnes per year	<ul style="list-style-type: none"> • Authorise ongoing deposition to Anson A & B Pits. • Remove TSF3E as an active facility. • Expand the Prescribed Premises Boundary to include all W6734/2022/1 tenements (administrative) • CEO initiated update of units to reflect Schedule 1 of the Environmental Protection Regulations 1986.
85B: Water desalination plant	1.5 gigalitres per annual	3.8 GL per year	<ul style="list-style-type: none"> • 1 new desalination plant to be constructed • 1 existing desalination plant added to licence – constructed prior to cat 85B being triggered by the

	period		<p>premises</p> <ul style="list-style-type: none"> Capacity of new and existing plants recalculated to reflect the department's position that design capacity is the volume of fresh water able to be produced, and units to reflect Schedule 1 of the Environmental Protection Regulations 1986.
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2.2.1 Anson A and B Pits

Works approval W6734/2022/1 (as issued 2023) authorised the construction, commissioning and time limited operation of the Atlas in pit TSF - consisting of six separate pits. An environmental compliance report only for Anson A and B Pits and associated groundwater bores was submitted on 11 July 2023, and an environmental commissioning report on 29 September 2023. The department's assessment found that construction was compliant for the Anson A and B Pit infrastructure. The commissioning report identified a non-compliance with the percentage solids limit or the tailings. An amendment was subsequently granted (9 September 2024) which assessed and authorised a range of 40-60% solids in the deposited tailings.

The compliance reports submitted also demonstrated compliance with conditions for monitoring and seepage recovery bore construction, and installation of an on-site meteorological unit to measure daily rainfall and evaporation.

There are additional conditions on W6734/2022/1 relating to testing and modelling of tailings and seepage. These will remain as obligations under the works approval and not be transferred to the licence at this time to avoid regulatory duplication. There is still significant construction to be undertaken under W6734/2022/1 during 2025, and further licence amendments to incorporate this infrastructure are expected.

A water balance is required by condition 26 of the existing licence. This will be expanded to include the Anson Pit A and B TSFs.

The risk assessments for W6734/2022/1 as issued, and the 2024 amendment have been reviewed and inform section 3 of this report.

The licence holder has requested some changes to groundwater monitoring for ongoing operations compared with time limited operations. These are considered in Table 2.

Table 2: Ambient groundwater monitoring changes requested

Parameter	Requested change	Department's response
All parameters which were required bimonthly during TLO	Change to quarterly	Acceptable. This is consistent with other monitoring requirements on the licence. Bimonthly monitoring during the TLO period has been submitted and provides adequate baseline data.
Standing water level (SWL) and electrical conductivity (EC)	'Daily or monthly' to 'monthly'	Administrative – this is allowable under the W6734 conditions. W6734/2022/1 lists the sampling method as 'data logger'. The licence specifies 'spot sample' for existing groundwater sampling. Either is acceptable so this will be specified on the licence.
Radionuclide analysis (gross-alpha and gross-beta) - During TLO	Only required for TSFMB003, MB19WOD08,	The application states: "Bores have been selected for radionuclide analysis... based on spatial coverage around the Anson A & B pits and targeted aquifers to ensure

these were required for all monitoring bores.	MB19ATLAS09, MB18Anson02A	appropriate monitoring is undertaken around the pits.” Monitoring during Time Limited Operations provided baseline data and showed gross-alpha and gross-beta to be well below the guideline values for livestock drinking water. Given ongoing water level and chemical analysis of all monitoring bores to identify seepage pathways, it is acceptable to reduce the number of bores that are routinely analysed for radionuclides. Figure 1 shows the bores proposed for continued radionuclide monitoring, and Table 3 shows their screen depths. These are considered to provide acceptable spatial spread for radionuclide monitoring at this stage.
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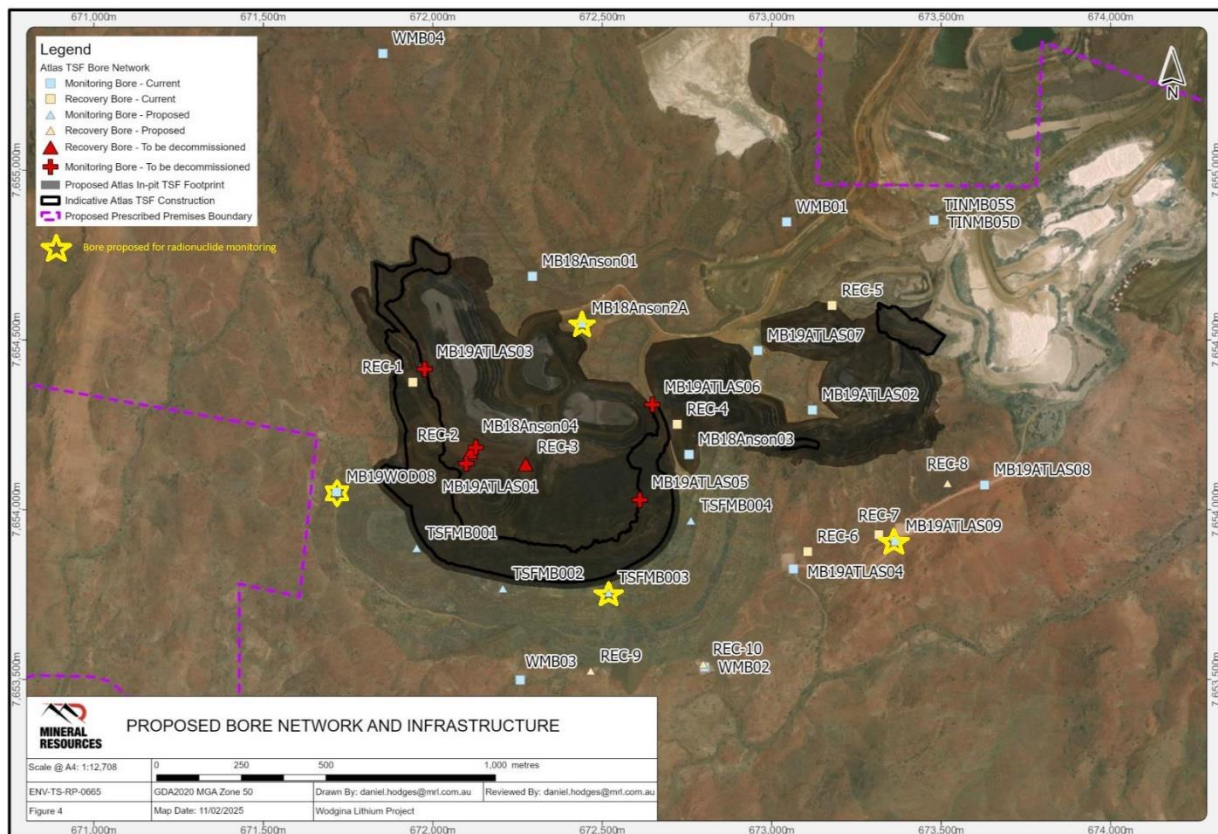


Figure 1: Location of Atlas Pit monitoring bores, highlighting proposed radionuclide monitoring bores

Table 3: Proposed radionuclide monitoring bore strata and depth

Bore ID	Target Strata	Screen Depth
TSFMB003	Embankment Fill	36 – 54 m
MB19WOD08	Mafic (basalt)	28 – 88 m
MB18Anson02A	Schist	102 – 120 m
MB19ATLAS09	Mafic	22 – 36 m

The expansion of the L4328/1989/10 prescribed premises boundary to include the footprint of Anson A & B Pits (addition of L45/443) is an administrative amendment that does not require risk assessment.

2.2.2 TSF3E

The license holder has applied to remove TSF3E as an active TSF, and associated monitoring. TSF3E is noted in the current Mining Proposal Reg ID 122942 as an inactive landform.

TSF 3 is not currently listed as a deposition point on the licence, but some ongoing monitoring is required. The requested changes and the department's responses are summarised in Appendix 1.

2.2.3 Category 85B – desalination

New desalination plant to be constructed and operated

A new reverse osmosis (RO) plant is proposed to produce potable water for a new accommodation camp on the premises. Two alternate locations have been proposed for this plant. The licence holder seeks approval to construct on one site only.

Site 1 is immediately adjacent to the existing small RO plant (discussed below). Site 2 is further north as shown in Figure 2.

The RO plant comes as a containerised system, and no on-site environmental commissioning is required. Construction requirements will be limited to leveling the pad and running required pipes, within the existing disturbance footprint.

If site 1 is selected, brine will be transferred via the existing pipeline shown in Figure 2, to the Haulage Tank to be diluted for dust suppression. If site 2 is selected, the brine tank within that containerised RO plant will be accessed directly by water trucks, and diluted for dust suppression.

Chemicals used during operation will include chlorine, antiscalants and ground limestone. Storage is within a vented shed, with spill response kits available. Chemicals are stored within bunded containers within the shed and managed in accordance with the MinRes Chemical Management Procedure.

Existing desalination plant added to licence – operation only.

The licence holder has identified another small RO plant that has been on the premises since before the addition of category 85B to the licence. This plant alone did not trigger the category threshold, however now that category 85B is on the licence this infrastructure needs to be regulated as part of the prescribed premises. The RO plant is referred to as the “Existing Potable RO Plant” in Figure 2 and is used to supply potable water for an existing accommodation camp. The construction of this unit was not assessed under Part V Division 3 of the EP Act, only the continued operation of this plant is assessed in this amendment. Existing chemical use and storage is the same as for the proposed plant.

Revised capacity of new and existing plants

The category 85B design capacity on L4328/1989/10 increases due to the two new plants being added to the licence, however this represents less than 10% increase in RO design capacity for the premises, from 1.5 to 1.75GL/year brine production.

Separately, the currently listed category 85B capacity for the plant already on the licence was based on volume of brine produced, whereas the department's current position is that design capacity should be based on volume of fresh water able to be produced (the productive capacity of the desalination plant). Therefore the new category 85B design capacity will be

based on the following:

- 3.5 GL per year for the existing production RO plant (producing water primarily for mineral processing)
- 0.15 GL per year for the existing potable water RO plant to be added to licence in this amendment)
- 0.15 GL per year for the proposed new potable water RO plant

Totalling 3.8 GL per year of freshwater production (design capacity) for the three plants.

There is no proposed change to dust control requirements, so the small increase in design capacity is expected to result in slightly increased discharges to Cassiterite Pit. Most of the increase in stated capacity is administrative, as the new listed capacity is based on freshwater generation capacity of the existing production RO plants rather than brine produced as previously stated.

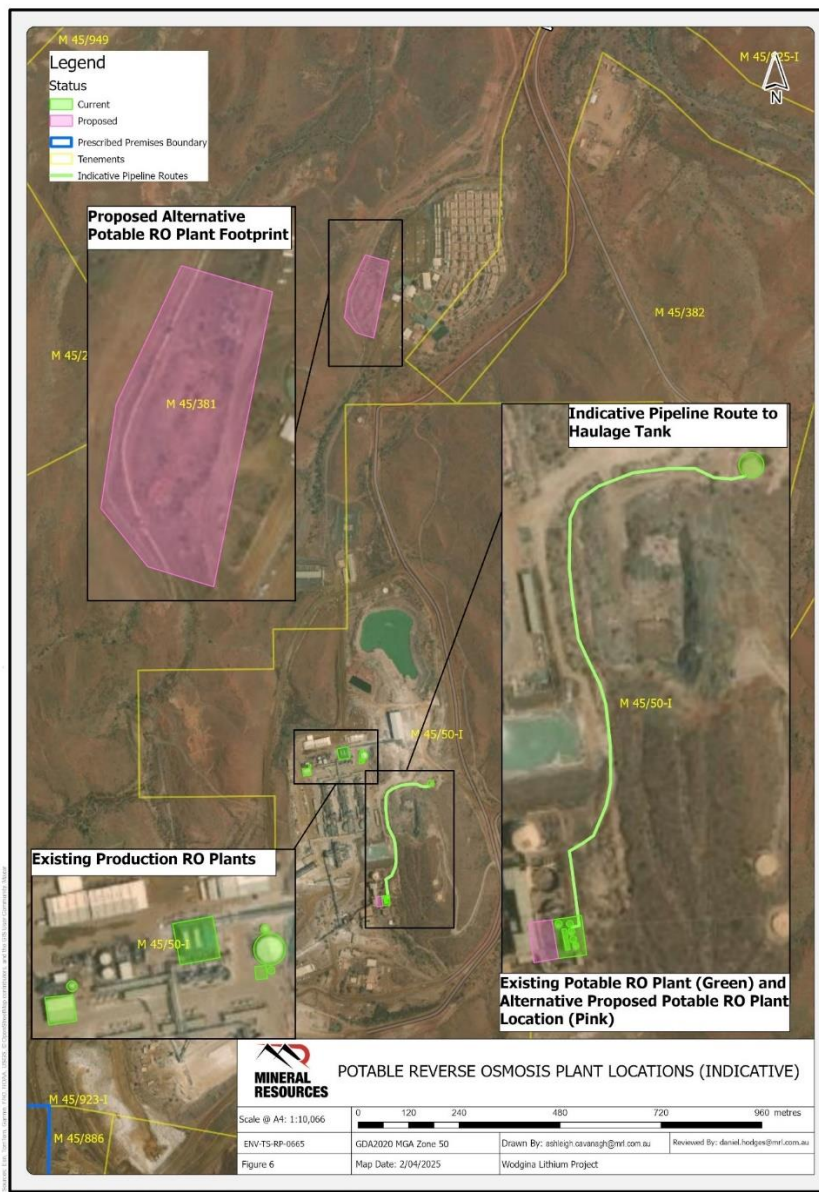


Figure 2: Location of existing and proposed Reverse Osmosis (RO) plants

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 construction and operation which have been considered in this Amendment Report are detailed in Table 4 below. Table 4 also details the proposed control measures the licence holder has proposed to assist in controlling these emissions, where necessary.

Table 4: Licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Anson Pits A and B			
Dust from Anson Pits A & B	Dry tailings (particulates) on exposed beaches potentially containing concentrations of elements with environmental significance	Air / windborne pathway	<p>As per the application for works approval W6734:</p> <ul style="list-style-type: none"> • Cyclic deposition maintaining a wet beach. • Location within pit will provide natural protection to wind when compared to above ground TSF. Dust monitoring of surrounding environment down wind. • Dust suppression techniques. <p>Low levels of naturally occurring radioactivity expected in tailings. Tailings were not considered radioactive as per WA Radiation Safety Regulations 1983 (in accordance with the Wodgina Radiation Management plan - D700701-SAF-PLN-0014).</p> <p>The department notes that regulation of radiation safety on mining operations is the responsibility of DEMIRS under the Work Health and Safety (WHS) laws.</p>
Spillage of tailings and decant return water	Pipeline ruptures	Direct discharges to land and infiltration to soil	<p>Pipelines constructed in accordance with works approval W6734.</p> <p>As per application for W6734:</p> <ul style="list-style-type: none"> • Minimise flow velocity. • Periodic replacement of pipeline bends. • Operations manual detailing deposition method. • Training of operators.
Tailings seepage	Deposition of tailings into in-pit TSF	Seepage through pit walls and infiltration to groundwater	<p>As per application for W6734:</p> <ul style="list-style-type: none"> • Control of decant pool to minimise seepage volumes. • Implementation of monitoring programme and trigger response action plan. • TSF recovery bores and seepage recovery system in accordance with the Atlas Pits TSF

Emission	Sources	Potential pathways	Proposed controls
			<p>Operational Monitoring and Mitigation Report (AQ2, 2022b and any future updates), through the Wodgina life of mine.</p> <ul style="list-style-type: none"> • Cycling tailings deposition between the pits will increase consolidation of the tailings during operation and reduce the permeability of the tailings. • Maintenance of a water balance. <p>Operational and monitoring conditions from time limited operations under W6734 to be transferred to the licence.</p>
Reverse osmosis plants			
Dust	Construction / earthworks	Airbourne	Short construction timeframe
Spill of chemicals	Storage of chlorine, anti-scalants and ground limestone	Direct discharge to ground, seepage to groundwater	<ul style="list-style-type: none"> • Storage within a vented shed with external safety showers and spill kits • Chemicals are stored within bunded containers within the shed and managed in accordance with the <i>MinRes Chemical Management Procedure</i>.
Saline wastewater	RO waste stream piped to tank for dilution and use in dust control or deposition to Cassiterite Pit	Spills or leaks from pipes, direct deposition into Cassiterite Pit	Existing conditions on licence.

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 5 below provides a summary of environmental and cultural receptors that may be impacted by emissions and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)). The nearest human receptor is the Tambram Mine Camp, operated by Pilbara Minerals. This is approximately 5km from the proposed new RO plant so there is no plausible impact pathway.

Table 5: Sensitive human and environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Groundwater	<p>The premises is located within the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act) Proclaimed Pilbara Groundwater Area.</p> <p>There are no nearby stock bores. The closest bore (not operated by the licence holder) that is for camp use is more than 10 km from the premises.</p>

	<p>Groundwater levels at the Atlas In-Pit TSF area range from 10 metres below ground level (mBGL) in areas surrounding the greenstone belt to 55 – 95 mBGL within the greenstone belt located on the high ridges. This is below the base of the Atlas pits where base elevations range from 40 to 80 mbgl.</p> <p>Groundwater quality: generally alkaline (pH 7.4 to 8.4), fresh to brackish salinity (510 to 3,200 mg/L total dissolved solids) and very hard (406 to 1,600 mg CaCO₃/L).</p> <ul style="list-style-type: none"> • Low environmentally significant metals and metalloids including arsenic, cadmium, cobalt, lead, mercury, selenium and thallium were detected; and • Variable in lithium content, ranging from 0.08 mg/L (groundwater in non-lithium bearing ultramafic rocks) to 9.5 mg/L (groundwater associated with pegmatite dykes).
Major watercourses/ waterbodies	<p>The premises is located within the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act) Proclaimed Pilbara Surface Water Area.</p> <p>No permanent surface water systems intersect the Anson area, although semi-permanent and permanent pools are located within the premises boundary (approximately 1km south west of Atlas in-pit TSF).</p> <p>The premises is predominantly situated within the western sub-catchment of the Turner River that drains generally in a north-east direction towards the Turner River approximately 9 km downstream of the Premises.</p> <p>Ephemeral drainages located within premises. As the Anson pits do not have a large catchment of water flowing towards them, no surface water diversions were proposed.</p>
Conservation Significant Flora	<p>There is Priority 3 flora located within the premises.</p> <ul style="list-style-type: none"> • <i>Euphorbia clementii</i> (P3) • <i>Heliotropium muticum</i> (P3) • <i>Terminalia supranitifolia</i> (P3) • <i>Triodia chichesterensis</i> (P3) • <i>Vigna triodiophila</i> (P3) <p><i>Abutilon</i> aff. <i>Hanni</i> (potentially undescribed) (EPA 2016a; 2016b).</p> <p>Refer to Figure 3.</p>
Threatened/ Priority Fauna	Numerous Threatened and Priority Fauna are located within the premises boundary.
Soil and native vegetation	Within the prescribed premises.
Cultural receptors	Distance from prescribed activity
Aboriginal heritage sites	<p>The existing RO plant proposed to be added to the licence and the proposed new RO site are within the registered aboriginal heritage site 9009. Anson A and B pits are also partially within this area.</p> <p>DWER notes that direct impacts to Aboriginal Heritage Sites are regulated under <i>Aboriginal Heritage Act 1972</i>.</p>

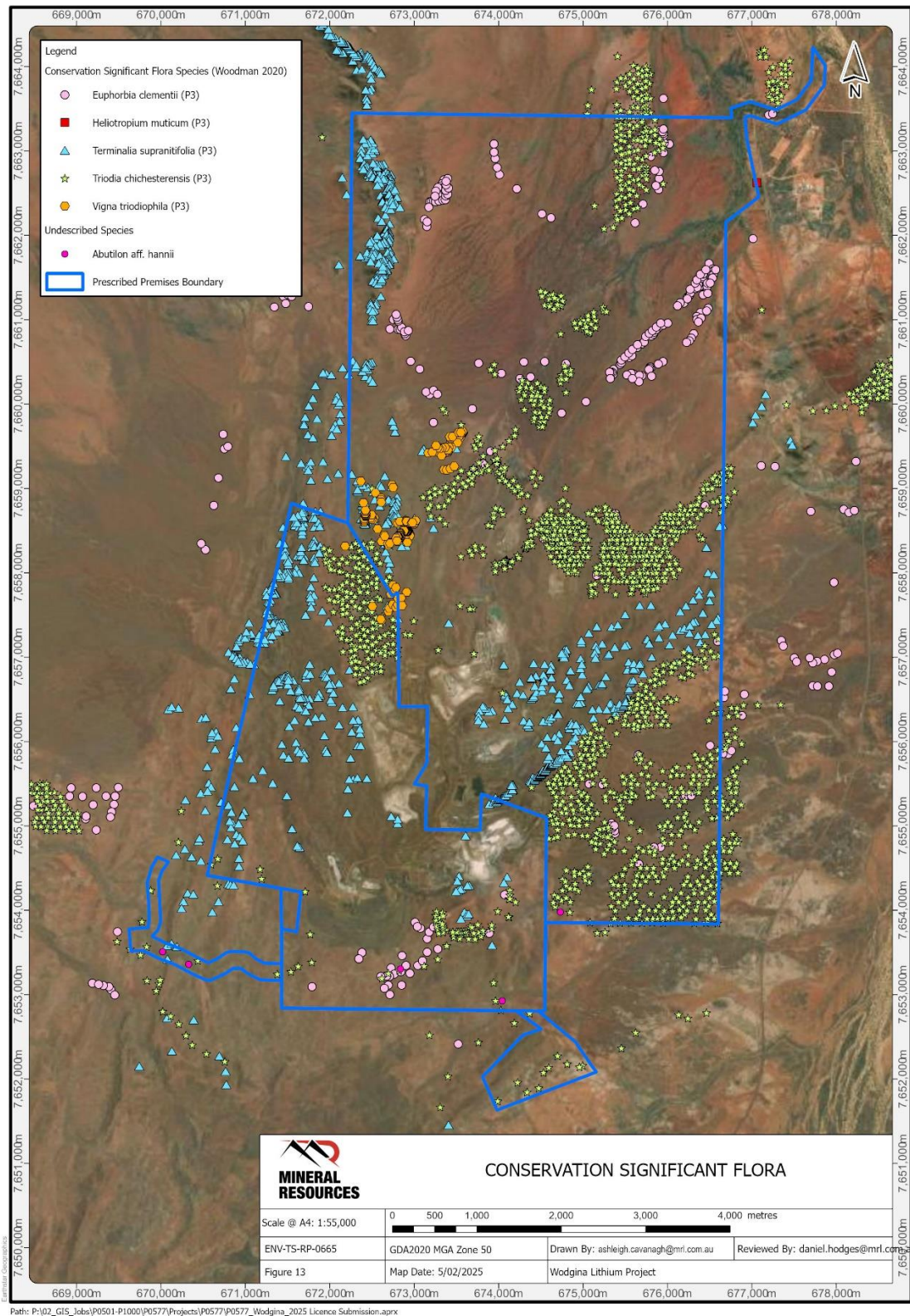


Figure 3: Conservation significant flora within and surrounding the premises

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 6.

The Revised Licence L4328/1989/10 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises, and construction of the new RO plant.

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

Table 6. Risk assessment of potential emissions and discharges from the Premises during construction and operations assessed in this amendment

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
Construction – New RO Plant								
Construction of new RO plant (including earthworks and pipeline)	Dust	Windborne dust spread resulting in reduced vegetation health	Native vegetation	Refer to Section 3.1.1	C = Slight L = Unlikely Low Risk	Y	N/A	General provisions of the EP Act apply in relation to pollution or unreasonable emissions (s49) and/or environmental harm (s50A, 50B and 50C).
Operation – RO Plants								
Storage of chlorine, anti-scalants and ground limestone	chlorine, anti-scalants and ground limestone	Spills resulting in contamination of soil and groundwater. Subsequent vegetation impacts	Groundwater Soils and vegetation	Refer to Section 3.1.1	C = Slight L = Possible Low Risk	Y	N/A	General provisions of the EP Act apply in relation to pollution or unreasonable emissions (s49) and/or environmental harm (s50A, 50B and 50C). <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> apply.
Deposition of increased volumes of brine to Cassiterite Pit	Saline leachate	Infiltration through soils to groundwater, resulting in contamination of soil and groundwater including increased salinity. Subsequent vegetation impacts.	Groundwater Soils and vegetation	Refer to Section 3.1.1	C = Slight L = Possible Low Risk	Y	Existing licence conditions: <ul style="list-style-type: none">Condition 3 (Cassiterite Pit freeboard)Condition 15 (freeboard inspections)Condition 17 (authorised discharge point)Condition 28 (cumulative volume monitoring)Condition 32 (reporting)	Existing conditions sufficient.
Transport of brine to haulage	Elevated	Direct leak / spill	Groundwater	Refer to	C = Slight	Y	Condition 14 (pipeline	Existing condition

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
tank via pipelines	salinity water	resulting in contamination of soil and groundwater including increased salinity. Subsequent vegetation impacts	Soils and vegetation	Section 3.1.1	L = Possible Low Risk		requirements)	
Operation – Tailings deposition to Anson Pits A and B								
Deposition of tailings into Anson A and B Pits	TSF supernatant containing concentrations of elements with environmental significance	Seepage / Infiltration of supernatant water through pit walls and base resulting in reduced groundwater quality.	Groundwater (>5 mBGL) with flow to the northeast toward the existing Cassiterite Pit mine void, to the west-southwest towards the Yule River and to the east-southeast towards Turner River West).	Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	Y	Condition 9 (infrastructure requirements) Condition 15 (freeboard inspections) Condition 17 (authorised discharge points) Condition 28 (process monitoring) Condition 29 (groundwater monitoring)	Licence holder controls include the transfer of relevant conditions from W6734/2022/1
		Groundwater mounding resulting in seepage expression on surface, impacting vegetation and reducing surface water quality.	Land/soils Surrounding Vegetation, including Priority Flora (P3) Surface water located south/south east of proposed in-pit TSF, including its potential hyporheic	Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	Y	Conditions 31-33 (annual reporting) Tailings investigative conditions remaining on W6734/2022/1 (still active with other components of the Atlas in-pit TSF being constructed)	

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
			community Aboriginal Heritage Site					
		Overtopping of tailings resulting in direct discharges to land and infiltration to soil resulting in reduced soil and surface water quality and impacting health of surrounding vegetation	Surrounding Vegetation, including Priority Flora (P3) Land/soils Surface water located south/south east of proposed in-pit TSF. Aboriginal Heritage Site	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y		
Drying of tailings in Anson A and B Pits	Dust	Air / windborne pathway causing impacts to vegetation health due to dust deposition leading to reduced ability for photosynthesis and smothering	Surrounding Vegetation Aboriginal Heritage Site	Refer to Section 3.1.1	C = Slight L = Possible Low Risk	Y	N/A	General provisions of the EP Act apply in relation to pollution or unreasonable emissions (s49) and/or environmental harm (s50A, 50B and 50C).
Tailings delivery and return water pipelines	Spillage of tailings and decant return water through leaks, pipeline ruptures or failure	Direct discharges to land and infiltration to soil resulting in reduced soil and surface water quality and impacting health of surrounding vegetation	Land/soils Surrounding Vegetation Surface water Aboriginal Heritage Site	Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	Y	Condition 14 (pipeline requirements) Condition 15 (inspections) Conditions 31-33 (annual reporting)	

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

4. Consultation

Table 7 provides a summary of the consultation undertaken by the department.

Table 7: Consultation

Consultation method	Comments received	Department response
Licence holder was provided with draft amendment on 13 May 2025.	Refer to Appendix 3	Refer to Appendix 3. Changes resulting from these comments were considered significant enough to justify a second draft for licence holder review and comment.
Licence holder was provided with a second draft amendment on 17 June 2025.	Changes accepted, remaining comment period waived.	Revised licence issued.

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 8 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 8: Summary of licence amendments

Condition no.	Proposed amendments
Cover page	Addition of tenement L45/443 Revision of category 85B design capacity Administrative changes
3 (Table 2)	Added reference to additional Reverse Osmosis (RO) units
4 (Table 3)	Comment added that brine may be accessed directly from the RO plant for dust suppression.
9 (Table 4)	Anson A and Anson B Pits and associated infrastructure added. Requirements consistent with W6734/2022/1.
10 (Table 5)	Construction of new RO unit authorised (construction compliance report required under condition 36)
17 (table 8)	Discharge points for Anson Pits, decant water and RO brine added
20	Reference to TSF3E decant removed – redundant.
26	Water balance condition modified to reference all TSFs. Currently this will be Anson Pits A and B, plus seepage recovery only for TSF3E.

Condition no.	Proposed amendments
28 (Table 12)	Process monitoring table updated to remove some redundant requirements for TSF3E, and add requirements for Anson Pit A and Anson Pit B consistent with W6734/2022/1.
29 (Table 13)	TSF3E monitoring bores reduced, decant water monitoring requirement removed Anson Pit A and B monitoring added based W6734/2022/1 – including SWL limit. Variations are as per the application - reduced monitoring frequency, reduced bores requiring radionuclide analysis. Data logger listed as allowable method for SWL for TSFs, consistent with W6734/2022/1. Table 13 reformatted to more clearly list which bores require radionuclide monitoring. Table condensed by moving bore lists to Schedule 3.
32 (Table 14)	Row for condition 28, updated to reference TSFs (plural) not TSF3E. Row for condition 29, added Anson Pit A and Anson Pit B.
36	Notification requirement for condition 10 clarified that it relates to each item of infrastructure.
Appendix 1, Figure 1	Premises boundary updated
Appendix 1, Figure 2	Figure updated to show new premises boundary.
Additional figures added	Figure 12: Location of Anson A and B Pits Figure 13: Location of Atlas TSF footprint (for brine in dust control) and pipeline to processing plant. Figure 14: Location of Reverse Osmosis plants. Figure 17: Location of groundwater monitoring bores and seepage recovery bores – Anson Pits and greater Atlas TSF Figures 12 onwards subsequently renumbered, and references updated throughout licence. Previous Figure 13 deleted. It is redundant as it was a superseded version of previous Figure 12 (now Figure 15). There were no references in text to this figure, and it contains no relevant features that are not also in the updated figure.

References

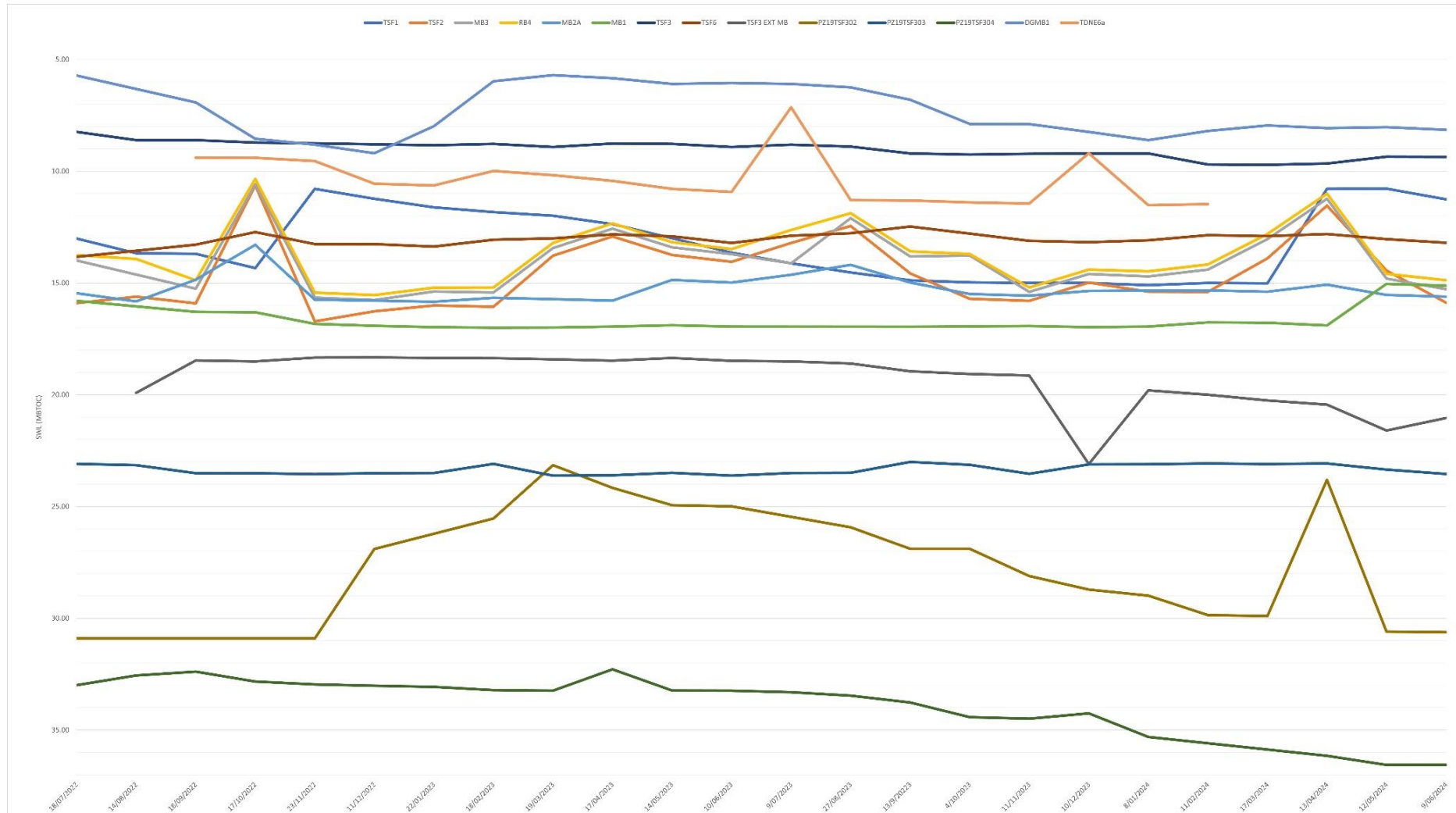
1. Application APP-0027592 submitted in Environment Online on 20 February 2025 by MARBL LITHIUM OPERATIONS PTY LTD.
2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

Appendix 1: Changes requested to remove TSF3E from licence

Condition number	Condition	Proposed Action	DWER response
20.	The Licence Holder must not use TSF3E decant water or process water for dust suppression.	Consider rewording to “The Licence Holder must not use process water for dust suppression”, removing TSF3E decant as no tailings deposition will be undertaken.	Accepted.
28. Table 12.	The Licence Holder must undertake the monitoring specified in Table 12 according to the specifications in that table.	Removal of items relevant to TSF3E from Table 12.	<p>Accept that decant water and piezometer readings are not required for an inactive facility.</p> <p>The latest annual environmental report for L4328 (July 2023 – June 2024) shows that RB1 and RB4 were dry, therefore these shall be removed from the licence. However seepage was still being recovered by RB2 and RB3 so these should continue to operate and monitoring of recovered seepage is still required at this stage.</p>
29. Table 13.	The Licence Holder must conduct groundwater monitoring programme in accordance with the requirements in Table 13 and record the results of all monitoring activity conducted under that	Removal of monitoring requirements associated with TSF3E considering no further tailings discharges are occurring to the facility.	<p>Agree decant water monitoring is not relevant for an inactive TSF.</p> <p>2024 annual environmental report shows several groundwater bores are dry – removed from licence (RB1, RB4, RB3M, TSF4, TSF5, RB2M, MB2B).</p> <p>2024 annual environmental report shows groundwater levels in most monitoring bores to be steady or declining since August 2023 when deposition to TSF3E ceased (shown in Appendix 2). However seepage recovery is continuing, which is an ongoing seepage management measure. Groundwater monitoring of available bores is still</p>

Condition number	Condition	Proposed Action	DWER response
	programme.		required to monitor the effectiveness of seepage recovery and the impact of cessation.
		<p><u>Licence holder comment on first draft:</u> Licence holder acknowledged a need for some ongoing groundwater monitoring at TSF3, but requested a reduced bore list as mining operations will impinge on several bores. Licence holder noted that deposition at TSF3E ceased over 18 months ago and seepage has much reduced over that time.</p>	<p>The Delegated Officer agrees that seepage recovery volumes have significantly reduced since cessation of deposition into TSF3, and considers that a reduced monitoring program is acceptable. Appendix 4 shows the existing bores and which ones the licence holder proposes to continue monitoring. The Delegated Office considers that this is sufficient. Updated figures are not required but Table 13 is amended as requested.</p>
32. Table 14.	Annual Environmental Reporting requirements	<p>Removal of TSF3E from the process monitoring data requirement in Condition 28, Table 12.</p> <p>Removal of TSF3E from the monitoring of ambient groundwater quality data reporting requirements in Condition 29, Table 13.</p>	<p>Not removed for condition 28 – seepage recovery data still required</p> <p>Not removed for condition 29 – some groundwater monitoring still required.</p>

Appendix 2: Standing water level data provided in the 2024 Annual Environmental Report for TSF3 monitoring bores



Appendix 3: Summary of licence holder's comments on risk assessment and draft conditions

Condition	Summary of licence holder's comment	Department's response
Condition 28, Table 12: Process Monitoring	REC2 should be capitalised	Corrected.
	As per <i>Figure 17: Location of groundwater monitoring bores and seepage recovery bores – Anson Pits and greater Atlas TSF</i> please footnote REC2 and REC3 as 'to be decommissioned'. Once tailings deposition ceases within the Anson Combined TSF, REC8, 9 and 10 will be constructed (Recovery Bore – Proposed) to recover seepage around the landform. This is reflected in works approval W6734/2022/1 and within Figure 17 of the draft licence instrument. REC-8, 9 and 10 will be constructed as per Table 3 of the works approval (W6734/2022/1) and the required compliance report will be submitted once they are constructed.	<p>The Delegated Officer acknowledges that REC2 and REC3 are planned to be replaced with REC8, REC9, REC10.</p> <p>Condition 28 has been updated to include appropriate provisions to allow for the transition in seepage recovery bores. REC2 and REC3 are to be monitored until the new bores are in-place.</p> <p>For completeness Condition 9 has also been updated to reference the proposed new recovery bores and transition arrangements for seepage bores.</p>
Condition 29, Table 13	Licence holder acknowledged a need for some ongoing groundwater monitoring at TSF3E, but requested a reduced bore list as mining operations will require the removal of several bores. Licence holder noted that deposition at TSF3E ceased over 18 months ago and seepage has much reduced over that time.	The Delegated Officer acknowledges that seepage recovery volumes have significantly reduced since cessation of deposition into TSF3, and a reduced monitoring program is acceptable. Updated amendment request added to Appendix 1, and granted.
Condition 29, Table 13	Confirmed the ISWMS monitoring point is still in use when available surface water is present, and brief history of this monitoring point.	Noted. Not relevant to this amendment. This is not a TSF3 monitoring point so separated out in Table 13.
	Radionuclide analysis requirement listed for wrong bore – inconsistent with decision report and application supporting documentation.	Noted. Corrected.
	Parameters Gross-alpha and gross-beta have a subscripted 4 next to them, however there is no Note 4 at the end of the table. Please provide Note 4 as applicable.	Superscripts not required. Administrative error, removed.
	Requested alternate format to denote which bores require radionuclide analysis	Table 13 reformatted.
Schedule 1, Figure 12	Updated map provided as requested in draft licence.	Updated figure acceptable, inserted.
Decision report page 5	WOD08 references monitoring bore ID MB19WOD08.	Noted. References updated accordingly.

Condition	Summary of licence holder's comment	Department's response
Decision Report page 6	Brine from Site 2 will be transferred to a tank within the footprint of the containerised plant area for disposal on Light-vehicle usage roads as dust suppression as approved within the current licence instrument.	Further communication confirmed that the tank within the RO plant will be directly accessed by water trucks and diluted for dust suppression. Decision report updated accordingly and risk assessment finalised.
Decision Report Table 8 / Licence Schedule 1 Figure 2	Replacement Figure 2 provided with updated premises boundary.	Accepted. Updated.

Appendix 4: Current and proposed TSF3 monitoring bores

The figure below shows the existing TSF monitoring and seepage recovery bores. The monitoring bores proposed to remain on the licence are circled in red.

