Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

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	DER2013/001044-1
Premises	Wodgina Lithium Project Legal description – M45/49, M45/50, M45/254, M45/353, M45/365, M45/381, M45/382, M45/383, M45/886, M45/887, M45/888, M45/950, M45/923, M45/924, M45/925, M45/949, M45/1188, M45/1252, G45/290, G45/291 and G45/321 MARBLE BAR WA 6760 As defined by the Premises map attached to the Revised Licence
Date of Report	16 September 2024 (FINAL)
Decision	Revised licence granted

Table of Contents

1. Decision summary

Licence L4328/1989/10 is held by MARBL Lithium Operations Pty Ltd (Licence Holder / works approval holder) for the Wodgina Lithium Project (the Premises), located approximately 90 km south of Port Hedland.

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 construction and operation of the Premises. 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 Amendment summary

On 03 May 2024, the Licence Holder submitted an application to the department 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:

- Include the fourth train of the beneficiation plant and supporting infrastructure (refer to section 2.2.1).
- Increase the waste disposal capacity from 3,650 tonnes to 9,450 tonnes per annual period (resulting in removal of Category 89 and inclusion of Category 64) – refer to Table 1 below.
- Increase in waste disposed of to the Landfill site from 1,650 to 7,000 tonnes (refer to section 2.2.2).
- Increase in the waste tyres disposed of to the Eastern Waste Landform (EWL) tyre disposal area from 500 to 950 tonnes (refer to section 2.2.2).
- Include additional EWL groundwater monitoring bores (refer to section 2.2.3).

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

Table 1: Proposed design capacity changes

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
5	8,750,000 tonnes per annual period	N/A	No change
52	64 MW gas power station	N/A	No change
54	210 m^3/day	N/A	No change
57	500 tyres	N/A	No change
64	0 tonnes	9,450 tonnes per annual period	3,650 tonnes associated with Category 89, plus an additional

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
			5,800 tonnes (of which 5,350 tonnes is for disposal to the landfill site; and 450 tonnes is for inert waste type 2 (tyres) to the EWL)
85B	1.5 GL per annual period	N/A	No change
89	3,650 tonnes per annual period	0 tonnes	Now covered under Category 64

2.2.1 Beneficiation plant – Train 4

The Licence Holder is proposing to construct and operate an additional process train (Train 4) to the existing beneficiation plant. The construction of Train 4 will increase the production capacity of the beneficiation plant to 1 million tonnes per annum (Mtpa) of Spodumene Concentrate (SC) 6% equivalent, or 1.1 Mtpa at SC 5.5%.

Note: there will be no change to the existing Category 5 approved design capacity as a result of the inclusion of Train 4.

The existing beneficiation plant consists of a common crushing circuit, followed by three parallel trains (Train 1, Train 2 and Train 3), each consisting of grinding, iron removal, deslime, pre-flotation, flotation and spodumene concentrate dewatering.

The structure of Train 4 will reflect the existing beneficiation trains. A common tailings thickener will continue to be used for all trains, along with water services, air services and reagents. Refer to Figure 1 for the overall beneficiation process.

Crushing

Ore is fed from a loader into the Run of Mine (ROM) bin where the ore passes a main grizzly feeder into the primary jaw crusher. The ore is then passed through a series of screens directing oversize through the secondary crushing unit (cone crusher).

Screening

Screens and conveyors ensure that appropriate particle sizes are obtained prior to being fed into the secondary and tertiary crushers. Static magnets are also installed following all passing streams behind crushing stages.

Grinding circuit

Crushed product with a F80 of 3.5 mm will be fed to two parallel ball mills, each with a nominal feed rate of 231 dry tonnes per hour (t/h). Each ball mill will operate in closed circuit with a set of hydrocyclones, to produce a ground product with a nominal P80 of 212 micrometres (µm).

Iron removal

Cyclone overflow from each grinding circuit will be fed to dedicated iron removal circuits, each consisting of low intensity magnetic separators (LIMS) followed by wet high intensity magnetic separators (WHIMS). Magnetics from each iron removal circuit will be discharged to either the final tailings thickener or to the tantalum recovery circuit. Non-magnetics from each iron removal circuit will be fed to individual deslime circuits.

Tantalum Recovery

The tantalum recovery circuit will be fed with the magnetic concentrate from the iron removal circuit. The magnetic concentrate will be fed via a series of gravity separation units, producing

a tantalum concentrate for transport. The tailings from the tantalum circuit, high in spodumene, will be returned to the spodumene process plant for further processing.

Deslime

Non-magnetics from each iron removal circuit will be fed to dedicated deslime hydrocyclone circuits. The hydrocyclones will cut at approximately 10 µm, with the slimes from each circuit discharging to the final tailings thickener. The deslimed cyclone underflow material will be forwarded to individual sulphide pre-flotation circuits.

Pre-Flotation

The deslimed slurry from each deslime circuit will be individually fed to parallel sulphide pre-flotation circuits, consisting of pre-flotation roughers and cleaner cells. Xanthate and frother will be added to the first pre-flotation rougher cell to promote sulphide flotation. Pre-flotation rougher concentrates will be fed to their respective cleaner circuits to reduce spodumene losses in the rejected sulphide product. Each pre-flotation cleaner concentrate (sulphide) will be sent to the common tailings thickener. Pre-flotation rougher tailings from each parallel train will be sent to their respective flotation circuits.

Flotation

Tailings from each pre-flotation circuit will be conditioned in individual tanks with oleic acid prior to flotation. Each flotation circuit will consist of rougher, scavenger, first cleaner, second cleaner and third cleaner stages to recover spodumene at high grade. The final spodumene concentrates from the third cleaner circuits will be forwarded to dedicated dewatering circuits. Flotation tailings will be sent to the final tailing's thickener.

Spodumene Concentration Dewatering

Spodumene concentrates from each flotation circuit will be dewatered individually. Each circuit consists of a concentrate thickener, concentrate storage tank and a belt filter. Dewatered concentrate will be stockpiled prior to shipment offsite. Filtrates from the belt filters will be returned to their respective concentrate thickeners, while thickener overflows will be returned to the common process water circuit.

Tailings

The iron removal magnetics, deslime cyclone overflow (slimes) and flotation tailings from each train is dewatered in a common thickener prior to being pumped to the Atlas Tailings Storage Facility (TSF).

The maximum tailings output at full operating capacity with four trains is approximately 6.4 Mtpa, equating to 1.6 Mtpa/train.

Tailings output is subject to production rate and ore grade, and is separated into wet / fine tailings stream and dry / coarse tailings stream through screening out of the course faction of tailings.

Wet / fine tailings are deposited into the Anson Pits A and B (part of the Atlas TSF), while the dry / coarse tailings are co-mingled with waste rock in the EWL. In the event that segregation of coarse tailings by cyclone and the dewatering screen is not operational, the beneficiation plant will revert to the production of a total tailings stream (no dry / coarse tailings separation) that will be deposited in the Atlas TSF.

Wet tailings production will increase from approximately 135,000 m^3 per month to 180,000 m^3 per month. The disposal of wet tailings into Anson Pits A and B is currently authorised under Works Approval W6734/2022/1 through time limited operations until 24 March 2025.

The Licence Holder will be required to amend Licence L4328/189/10 to include the operational requirements / authorised discharge points for the wet tailings disposal into Anson Pits A and B beyond 24 March 2025.

Disposal of dry stack tailings within the EWL will be increased from approximately 125,000 m^3 per month to 175,000 m^3 at full operating capacity with four trains. The maximum relative waste volume attributed to dry stack tailings within the EWL will increase from approximately 8% to 12%, which will not materially change EWL operations or landform design.

There will be no change in the physical or geochemical properties to the current tailings stream as a result of operation of Train 4 as the feed source and process flow will remain the same.

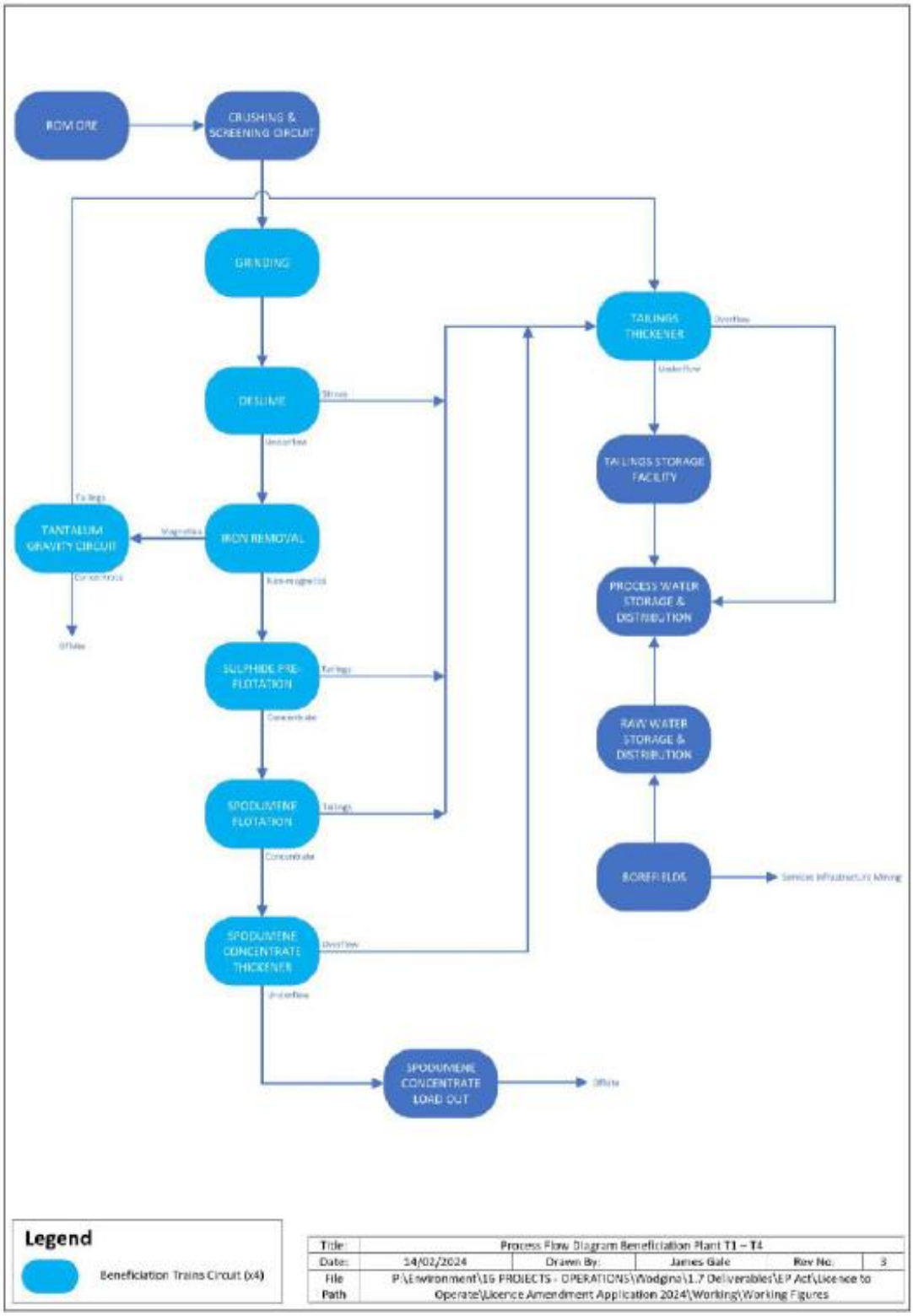

Figure 1: Beneficiation process

Additional supporting infrastructure for Train 4 comprises of:

- Additional capacity in compressed air.
- Additional distribution capacity in process and raw water system to meet Train 4 requirements including installation of additional pumps, filtering capacity and a feed tank.
- Expansion of coarse dry tailing screen capacity.
- Additional mill media storage bunkers.
- Additional Retention Sump.
- Additional concentrate storage area to accommodate supplement the existing spodumene concentrate storage area located outside of the storage shed.

Refer to section 3 for the risk assessment associated with Train 4.

2.2.2 Increase in waste disposal

The Licence Holder has requested an increase to the maximum waste disposal limits (from 3,650 tonnes to 9,450 tonnes), due to increased personnel on site as a result of mining ramp up and planned construction activities.

Table 2 shows the break-down of currently approved / proposed waste disposal type/s and volumes to the dedicated landfill site and EWL at the Premises.

Table 2: Existing waste acceptance and proposed changes

Facility	Waste type	Currently approved	Proposed	Difference
Landfill site	Inert Waste Type 1	1,650 tonnes per annual period	7,000 tonnes per annual period	5,350 tonnes per annual period
	Putrescible Waste			
	Clean Fill			
	Inert Waste Type 2			
EWL	Inert Waste Type 1	1,500 tonnes per annual period	1,500 tonnes per annual period (no change)	0 tonnes
	Inert Waste Type 2 (tyres only)	500 tonnes per annual period	950 tonnes per annual period	450 tonnes per annual period
Total		**3,650 tonnes per annual period**	**9,450 tonnes per annual period**	

Refer to section 3 for the risk assessment associated with the increase in waste disposal to the landfill site and EWL.

2.2.3 EWL groundwater monitoring bores

Previous monitoring bore EWL-h was removed from L4328/1989/10 (under the amendment granted 14 February 2024) to allow for the construction of the EWL to progress.

The Licence Holder committed to replacing EWL-h with nested monitoring bores. The two proposed monitoring bores are: EWL24_MB001_S and EWL24_MB001_D.

During this amendment the two bores have been added to Condition 12 (previously Condition 10) infrastructure requirements – groundwater monitoring wells; and Condition 29 (previously

Condition 27) for the monitoring of ambient groundwater quality at the EWL.

2.2.4 Other amendments

TSF3E:

The department (DWER) was advised by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) that TSF3E is no longer used for tailings deposition.

This was confirmed by the Licence Holder on 09 August 2024 (MinRes 2024b) where it was stated "*TSF3E is now inactive and can be removed from the Licence as a discharge point*."

During this amendment the following conditions were amended to remove reference to TSF3E:

- Condition 8 and associated Schedule 2: Infrastructure and equipment;
- Condition 9 - Operational requirements,
- Condition 15 (previously Condition 13) - Inspection of infrastructure;
- Condition 17 (previously Condition 15) – Authorised discharge points; and
- Condition 26 (previously Condition 24) – Annual water balance.

TO NOTE: Wet tailings are currently being disposed of to the Anson Pits A and B under W6734/2022/1 though time limited operations until 24 March 2025.

Previous Condition 28 – Specified actions:

Previous Condition 28 and Table 13 as shown below has been removed under this amendment:

28. During the first 30 days following this licence amendment issue, the Licence Holder must collect at least 10 individual representative tailings samples, including pore water, to determine the likely behavior of elements under a range of leaching conditions, which may include, but not be limited to:

(a) Testing using the LEAF Test Method 1313 pH-dependent leaching test (United States Environmental Protection Agency, 2017);

(b) Geotechnical characterisation of tailings including: particle size distribution, volume of solids, settling test (drained and undrained), air drying test and hydraulic conductivity of the same tailings tested in (a); and

(c) Testing for the contaminants listed in Table 13. All test results shall be collated and provided in a report to the CEO no later than 60 days after the sample results become available.

Table 13: Tailings characterisation parameters

Stream	Contaminants			
Tailings leachate and pore water mg/L	Ag - Silver	Cl - Chloride	Mo – Molybdenum	Ti - Titanium
	Al - Aluminium	Co – Cobalt	Na – Sodium	Tl - Thallium
	As - Arsenic	Cr - Chromium	Ni – Nickel	U – Uranium
	B - Boron	Cs - Caesium	P – Phosphorus	V – Vanadium
	Ba – Barium	Cu - Copper	Pb - Lead	W - Tungsten
	Be - Beryllium	Fe – Iron	Rb - Rubidium	Zn – Zinc
	Bi - Bismuth	Fl - Fluoride	Sb - Antimony	TDS – total dissolved solids
	Br - Bromide	Hg – Mercury	Se - Selenium	TN – total nitrogen
	C carbonate – Carbon carbonate	K – Potassium	Si - Silicon	Sulfur total
	C total – Carbon total	Li - Lithium	Sn – Tin	SO_4^{2-} - Sulphate
	Ca – Calcium	Mg – Magnesium	Sr – Strontium	Acrylamide
	Cd – Cadmium	Mn – Manganese	Th - Thorium	
NORMs Bq/L	Gross-alpha	Gross-beta		
Tailings leachate and pore water (pH units)	pH			

Licence L4328/1989/10 was amended on 25 July 2023 to include this condition. Under that amendment, the former Department of Mines, Industry Regulation and Safety (now known as DEMIRS) recommended further testing using tailings that are currently generated on site to assess the risk of disposal and comingling tailings with potential acid-forming material. Also trigger levels for intervention and mitigation.

On 18 April 2024, the Licence Holder submitted the following documents (MinRes 2024c) to demonstrate compliance with Condition 28:

- Wodgina Lithium Project Dry/Coarse Production Tailings Geochemical Characterisation, Condition 29 of DWER License L4328/1989/10 prepared by MBS Environmental for Mineral Resources Limited, April 2024; and
- Technical Memorandum – Reference: J23116-001-TM_Rev0_DWER Tailings Testing Interpretation, Red Earth Engineering, dated 14 March 2024.

The representative tailings samples were dry/coarse tailings that will be layered in the EWL.

The department assessed the documents and determined on 24 July 2024 that they generally meet the requirements of Condition 28 of Licence L4328/1989/10.

The department noted (with no further action required) that Condition 28(b) required geotechnical characterisation of tailings including settling test (drained and undrained). The Licence Holder advised that these 10 scheduled settling tests were cancelled as the samples were unsuitable for settling tests due to their coarser content.

The documents were also referred to DEMIRS who highlighted the following facts:

- Rubidium (Rb) concentration: fine tailings contain 10 times more Rb than coarse tailings;
- Caesium (Cs) concentration : fine tailings contain 30 times more Cs than coarse tailings; and
- Lithium (Li) concentration (solid and liquid phase): fine tailings contain 10 times more Li than coarse tailings. Same for Fluoride (F).

The main conclusion is that the main risk of naturally occurring radioactive material (NORM) and elevated Li + F in solution/seepage resides in the fine tailings.

TO NOTE: Fine tailings are currently disposed of in the Anson Pits A and B under W6734/2022/1.

Conditions 5 and 21 of W6734/2022/1 still requires –

5. The works approval holder must undertake long-term kinetic testing (testing taking place for a period of at least one year) on representative samples of tailings streams deposited into Atlas in-pit TSF. Interpretation of the results, including implications for long-term management of seepage from Atlas-in pit TSF needs to be provided in a report to the CEO by no later than 31st October 2024.

21. The works approval holder must submit a report with a revision of long-term seepage migration prediction (using the most recent validated/re-calibrated AQ2 seepage model) to the CEO within 24 months from commencement of tailings deposition. The report must include but not be limited to:

- results of solute transport modelling to predict transport and fate of lithium in groundwater near the Atlas in-pit TSF;
- identification of areas with native vegetation near the Atlas in-pit TSF where standing water level could reach less than 3m due to seepage and where concentrations of lithium could exceed 2.5mg/L;
- identification of surface water drainage lines near the Atlas in-pit TSF where seepage expression could occur and where concentrations of lithium would exceed 0.4mg/L;
- a review of suitability of groundwater monitoring and seepage recovery or seepage management strategy based on results of solute transport modelling; and
- any response actions undertaken to improve long-term management of seepage from the facility (where necessary).

Previous Condition 33 – Direct Toxicity Assessment (DTA):

Previous Condition 33 as shown below has been removed under this amendment:

> **33.** The Licence Holder must by the **30 April 2024**, submit to the CEO a report on the direct toxicity assessment (DTA) undertaken in accordance with ANZG 2018 guidelines. The DTA must:
>
> (a) use local aquatic species found downstream of TSF3E;
>
> (b) determine the acute and/or chronic toxicity of fluoride in tailings pore, decant or seepage water; and
>
> (c) be used to derive a set of site-specific trigger values for fluoride for protection of onsite aquatic ecosystems.
>
> Within the report, the Licence Holder must propose management actions to be undertaken in response to an exceedance of derived trigger values.

On 19 April 2024, the Licence Holder submitted the *Site-specific guideline values for the Wodgina lithium mine* (Rick van Dam, WQadvice 2024). On the 13 June 2024, the department advised the Licence Holder that the document did not demonstrate compliance with Condition 33 of L4328/1989/10.

On 08 August 2024, the Licence Holder provided a response (MinRes 2024d) to the department's request on 13 June 2024 for further information. Within this response the following documents were provide:

- Wodgina Water Quality Trigger Action Response Plan (TARP) for Fluoride; and
- Ecotoxicity Testing of Lithium, Thallium, Fluoride and Environmental Discharges using a Suite of Tests with Species Sourced from the Wodgina Region.

TO NOTE: while Condition 33 has been removed under this amendment, the department will assess the submitted documents in detail (and refer internally for advice) outside of this amendment process. If further actions / management plan updates are required, the department will liaise with the Licence Holder and if necessary, initiate a licence amendment to L4328/1989/10 to include conditions to action this.

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 construction and operation which have been considered in this Amendment Report are detailed in Table 3 below. Table 3 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 3: Licence Holder controls (MinRes 2024a)

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction of Beneficiation Plant – Train 4 and associated infrastructure Vehicle movements	Air / windborne pathway	• Ground disturbance not undertaken during periods of high wind. • Vehicle and equipment restricted to designated roads and tracks. • Speed limits shall apply on unsealed roads. • Paved and bituminised access areas around the beneficiation plant. • Dust suppression via water carts.
Noise		Air / windborne / vibrations pathway	• Noise standard controls including ensuring all relevant plant and machinery with noise dampening equipment is maintained. • Regular inspection and maintenance of vehicles and equipment shall be undertaken.
Hydrocarbon contaminated and / or sediment laden stormwater		Discharges to land Overland runoff	• Avoid fuel / chemical storage and transfer from occurring outside of designated areas. • Hydrocarbons managed to avoid leaks and spills through the use of bunds, location of bunded areas being either outside floodplains or appropriately elevated to avoid the risk of inundation. • Where spills occur outside bunded areas, remediation to occur immediately to avoid contamination of surface and groundwater. • Roads around the beneficiation plant to be bituminised and surfaces graded to direct surface water into a dedicated stormwater retention sump.
Operation			
Category 5			
Dust from product handling Dust lift-off from exposed stockpiles /	Operation of Beneficiation Plant – Train 4 and associated infrastructure	Air / windborne pathway	• Dust suppression controls are used to minimise dust from the stockpiles. • Spodumene and tantalum concentrate are preferably stored within a purpose-built shed storage area. • Additional storage areas for

Emission	Sources	Potential pathways	Proposed controls
storage areas			concentrate are contained on bunded concrete pads.
Noise		Air / windborne / vibrations pathway	• Operations to comply with the *Environmental Protection (Noise) Regulations 1997*. • Regular inspection and maintenance of vehicles and equipment shall be undertaken. • Implement noise standard controls including ensuring all relevant plant and machinery fitted with noise dampening equipment is maintained.
Leaks and spills of hydrocarbons, chemicals and process reagents		Direct discharges to land	• Train 4 to be located within an impervious concrete compound with nib walls around the entire perimeter of the facility. • Impervious concrete compound graded to direct any spills and drainage to concrete lined sumps that have sump pumps to direct water / spills back into the process water system. • All hydrocarbons and dangerous goods on site stored and handled according to the applicable sections of the *Dangerous Goods Safety Act 2004*, *Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007* and *Dangerous Goods Safety (Explosives) Regulations 2007*. • Spillages cleaned up and disposed of as per appropriate Safety Data Sheets, relevant environmental and safety guidelines and the site environmental procedure.
Sediment laden stormwater		Overland runoff	• Roads around the beneficiation plant to be bituminised and surfaces graded to direct surface water into a dedicated stormwater retention sump. • Stormwater retention sump is a high density polyethylene (HDPE) lined system with sufficient capacity to contain a 1% Annual Exceedance Probability 72-hour rainfall event. • Stormwater retention sump to maintain an operational freeboard of 300 mm. • Any overflow from the stormwater

Emission	Sources	Potential pathways	Proposed controls
			retention sump is directed to Wodgina Pit.
Dust	Increase in the disposal of dry tails (co-mingled with mine waste) to the EWL	Air / windborne pathway	• Tailings has an average 18% moisture. • Based on particle sizing data, the dry / coarse tailings stream has a minor potential for dust generation under strong wind conditions; however the very fine fraction (less than 10 µm) comprises approximately 2% of these tailings by volume (i.e. low) and hence significant dust effects would not be expected (L4328/1989/10 Amendment Report – granted 25 July 2023).
Seepage of soluble metals / metalloids		Infiltration	Existing conditions on Licence L4328/1989/10 including: • Dry stack tailings are to be chemically benign and classified as non-acid forming (NAF); • Low moisture dry stack tailings not exceeding an average of 19% weight per weight; • Dry stack tailings to fill void spaces between mine waste, limiting the availability of water to travel through the EWL; • Co-mingled dry stack tailings within the EWL to have a minimum 2 m NAF waste rock cover upon final construction of the landform; and • Dry stack tailings to be deposited in the EWL will not be placed within 10 m of the final embankments or underneath an embankment slope.
Potentially Acid Forming (PAF) wastes and Acid and Metalliferous Drainage (AMD) generation		Seepage	
Dust	Increase in the disposal of wet tails to the Anson Pits A and B	Air / windborne pathway	• Fine-grained tailings is disposed via wet disposal method. • Cyclic deposition maintaining a wet beach (W6734/2022/1 Report).
Tailings supernatant		Seepage / infiltration	• Decant water is returned from the Atlas TSF to the process water circuit. • New and existing recovery bores.
	Overtopping of TSF	Direct discharges to land	• Daily visual inspections. • Decant recovery system.
Tailings slurry	Pipeline leaks,	Direct	• Contained within bunded corridors.

Emission	Sources	Potential pathways	Proposed controls
and decant return water	ruptures or failure	discharges to land	• Daily visual inspections.
Category 64			
Dust	Increased disposal of waste to the Landfill site	Air / windborne pathway	Existing conditions on Licence L4328/1989/10 apply.
Windborne waste		Air / windborne pathway	Existing conditions on Licence L4328/1989/10 apply.
Seepage / leachate		Seepage / infiltration	Existing condition on Licence L4328/1989/10 which states: • The separation distance between the base of the landfill and the highest groundwater level must not be less than 2 m.
Sediment laden stormwater		Overland runoff	Existing conditions on Licence L4328/1989/10 apply.
Dust	Increased disposal of tyres to the EWL	Air / windborne pathway	Existing conditions on Licence L4328/1989/10 apply.
Sediment laden stormwater		Overland runoff	Existing conditions on Licence L4328/1989/10 apply.

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.

The Wodgina Mine Camp is located approximately 1 km north-east of Train 4. This Camp is operated by the Licence Holder so will not be considered a sensitive receptor for this assessment.

Table 4 and Figures 2, 3, 4 and 5 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 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Pilgangoora Operations Pty Ltd – Pilgangoora Village aka Tambrah Mine Camp (not operated by the Licence Holder)	Approximately 6 km north-east of the location of Train 4. **Screened out due to distance.**
Environmental receptors	**Distance from prescribed activity**
Rights in Water and Irrigation Act 1914 (RIWI Act)	The premises is located within the RIWI Act Proclaimed Pilbara Groundwater and Surface Water Areas.
Groundwater	Groundwater flow is likely to be northwards, down the hydraulic gradient of major alluvial channels towards the coastal plain. Groundwater levels vary in the range of 200 to 210 mRL around Cassiterite Pit and 185 to 188 mRL near the EWL. Depth to groundwater surrounding the greenstone belt on the relatively flat granitic peneplain (including the northern evaporation pond location) is less than 10 m of the natural ground surface. Within the greenstone belt the depth to groundwater varies from very shallow, in low lying relief (less than 10 m) to greater than 40 m below ground level (bgl) on the higher relief metasediment outcrop. The mining of Cassiterite Pit has created a 'cone of depression' in the local water table resulting in groundwater flow converging towards Cassiterite Pit creating a groundwater sink, while other areas such as the EWL flow towards the east. Groundwater around Cassiterite Pit is marginal to brackish, with salinity around 3,500 mg/L Total Dissolved Solids, pH approximately 6.5 to 7.5; and dominated by Sodium, Magnesium, and Calcium (in roughly equal proportions) and Sulphate.
Major watercourses/ waterbodies	The Premises is predominately situated within the western sub-catchment of the Turner River that drains generally in a north-east direction towards the Turner River. Turner River West is located approximately 5 km east of Train 4; approximately 2.5 km east of the landfill site; and 5 km east of the EWL. The Yule River is located approximately 14 km west of Train 4. No permanent surface water systems intersect the project area, although semi-permanent pools may occur following heavy rainfall events.
Threatened/ Priority Flora	Six conservation significant flora species have been

One record of *Triodia chichesterensis* P3 exists within the Train 4 development area.	recorded within the prescribed premises boundary: • *Abutilon aff. hannii* potentially undescribed • *Euphorbia clementii* P3 • *Heliotropium muticum* P3 • *Terminalia supranitifolia* P3 • *Triodia chichesterensis* P3 • *Vigna triodiophila* P3 No threatened flora has been recorded.
Threatened/ Priority Fauna	Numerous threatened and priority fauna are located within the prescribed premises boundary. No conservation significant species are known to occur within the project area.
Aboriginal and heritage sites / places ID 9009 – Gulindjina Yambara, ritual / ceremonial; creation / dreaming narrative (registered site) overlaps the Train 4 development area. The Licence Holder has stated “All heritage sites will be avoided”.	There are numerous Aboriginal cultural heritage places within the prescribed premises boundary. Below are the ones that may be impacted by activities associated with this assessment: • ID 9009 – Gulindjina Yambara, ritual / ceremonial; creation / dreaming narrative (registered site) overlaps the Train 4 development area. • ID 22037 – WodE#1 Malbarn Caves, creation / dreaming narrative; rock shelter (lodged place) overlaps the EWL area. • ID 22038 – WodE#2 Law Ground Site Complex, ceremonial, mythological, skeletal material / burial, camp (registered site) overlaps the Landfill facility area. • ID 22040 – WodE#4 Historical Tin Mining Camp, camp, historical, water source (lodged place) overlaps the EWL area.

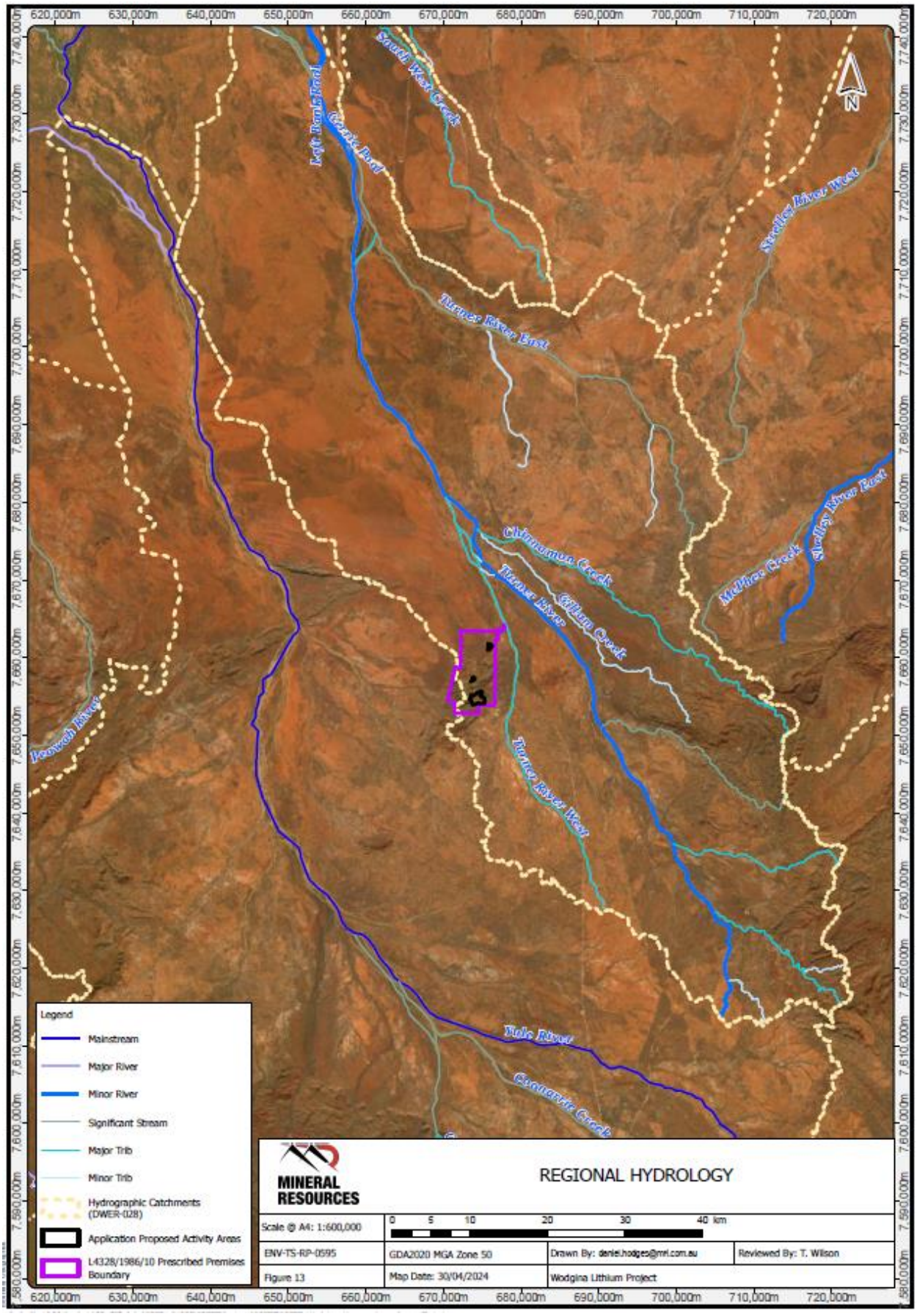

Figure 2: Regional hydrology

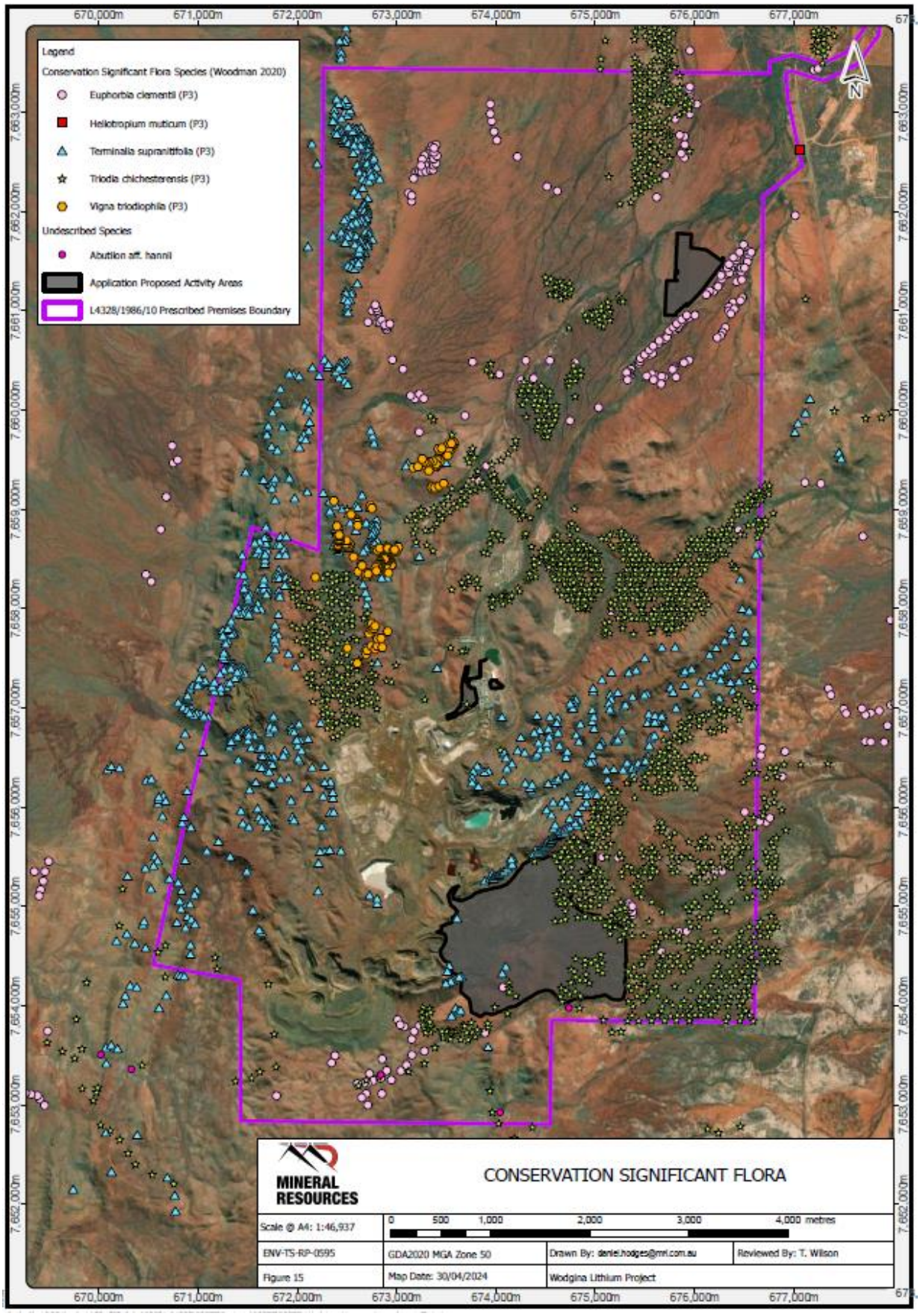

Figure 3: Conservation significant flora

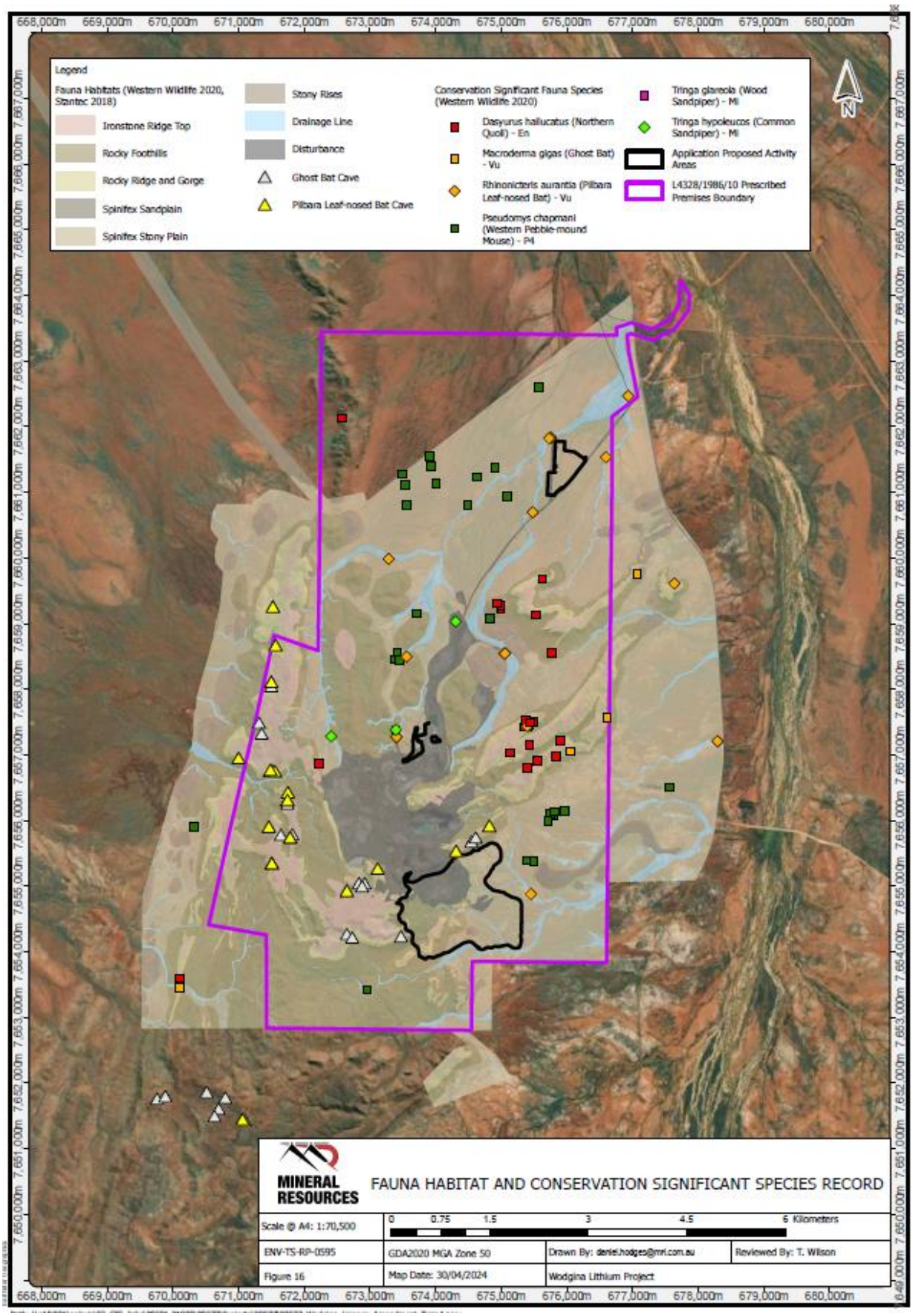

Figure 4: Conservation significant fauna species

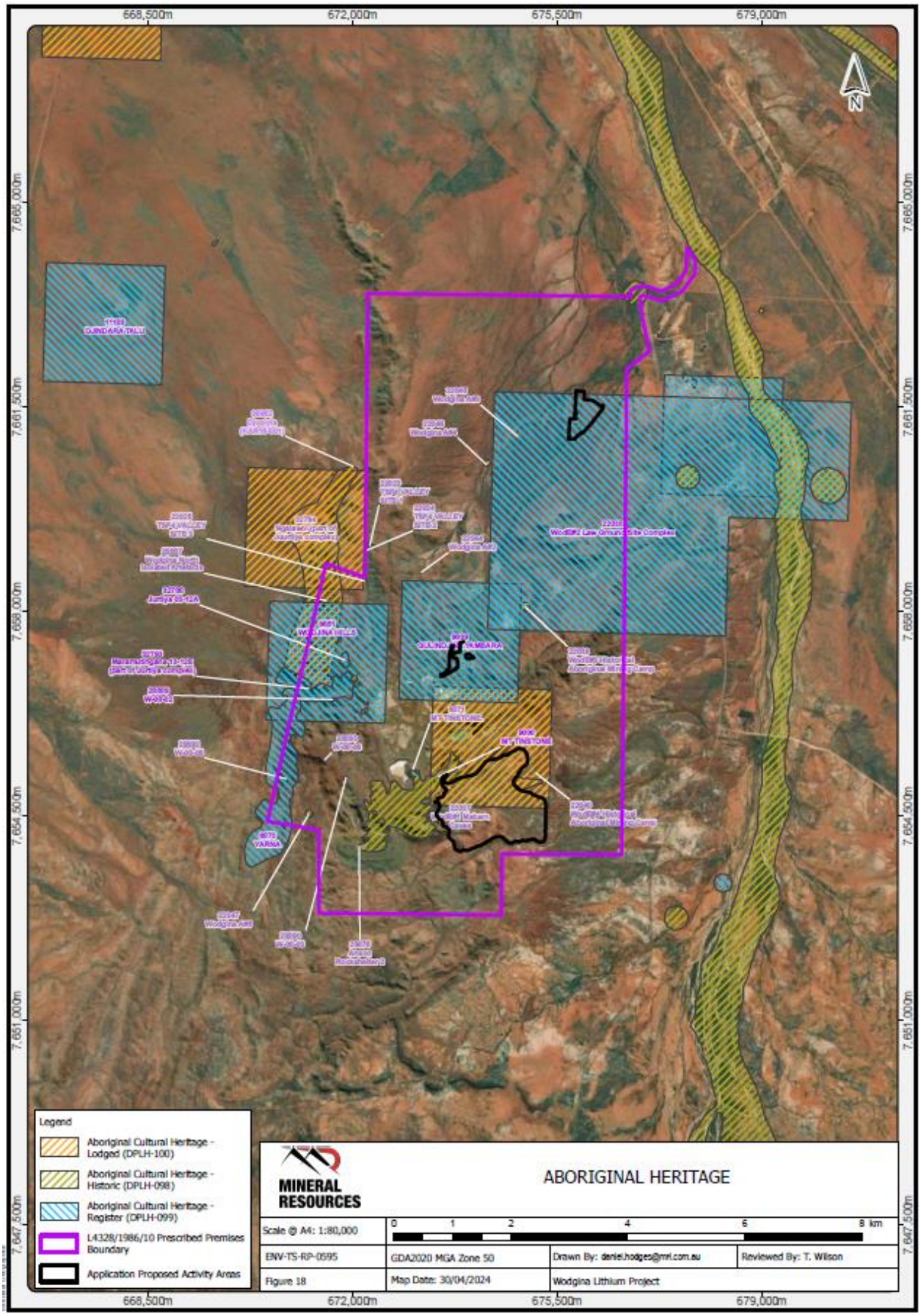

Figure 5: Aboriginal heritage sites

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 in-complete 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 5.

The Revised Licence L4328/1989/10 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises.

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

Table 5. Risk assessment of potential emissions and discharges from the Premises during construction and 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**				
Construction								
Construction of Beneficiation Plant – Train 4 and associated infrastructure Vehicle movements	Dust	Air / windborne pathway causing impacts to amenity, plus vegetation / flora health due to dust deposition leading to reduced ability for photosynthesis and smothering Degradation of fauna habitat	Flora and vegetation Aboriginal Heritage Sites Fauna	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	Y	No conditions imposed The general provisions of the EP Act apply	N/A
	Noise	Windborne noise / vibrations which may disrupt natural foraging and breeding behaviours of fauna	Fauna	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	No conditions imposed *Environmental Protection (Noise) Regulations 1997* applies	N/A
	Hydrocarbon contaminated and / or sediment laden stormwater	Discharges to land and overland runoff impacting surrounding vegetation and resulting in contamination and / or increased sedimentation of surface water drainage	Surrounding vegetation Surface water bodies	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 10 – Licence Holder's construction requirements for Train 4; stormwater retention sump; and additional concentrate storage area conditioned *Environmental Protection (Unauthorised Discharges) Regulations 2004* also applies	N/A
Operation								
Category 5								
Operation of Beneficiation Plant –	Dust from product	Air / windborne pathway causing	Flora and	Refer to	C = Moderate	Y	During this amendment, the following conditions on	N/A

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**				
Train 4 and associated infrastructure	handling Dust lift-off from exposed stockpiles / storage areas	impacts to amenity, plus vegetation / flora health due to dust deposition leading to reduced ability for photosynthesis and smothering Degradation of fauna habitat	vegetation Aboriginal Heritage Sites	Section 3.1	L = Possible **Medium Risk**		existing Licence L4328/1989/10 have been updated to include Train 4: • Condition 8 – Infrastructure and equipment • Condition 9 – Operational requirements	
	Noise	Windborne noise / vibrations which may disrupt natural foraging and breeding behaviours of fauna	Fauna	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	No conditions imposed *Environmental Protection (Noise) Regulations 1997* applies	N/A
	Leaks and spills of hydrocarbons, chemicals and process reagents	Direct discharges to land from overflowing bunds, tanks, pipeline failure which could lead to soil contamination and reduction in groundwater quality depending on size of the spill	Surrounding vegetation Surface water bodies Groundwater	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	During this amendment, the following conditions on existing Licence L4328/1989/10 have been updated to include Train 4: • Condition 8 – Infrastructure and equipment • Condition 9 – Operational requirements	N/A
	Sediment laden stormwater	Overland runoff impacting surrounding vegetation and resulting in sedimentation of surface water drainage	Surrounding vegetation Surface water bodies	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1 on existing Licence L4328/1989/10 relating to stormwater management During this amendment the Licence Holder's controls for the Train 4 retention sump has been applied to Condition 9 – Operational requirements.	N/A
Increase in the disposal of dry tails (co-mingled	Dust	Air / windborne pathway causing	Vegetation	Refer to Section 3.1	C = Minor	Y	Conditions on existing Licence L4328/1989/10 relating to:	N/A

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**				
with mine waste) to the EWL		adverse impacts on vegetation	Priority Flora		L = Unlikely **Medium Risk**		• Condition 3 – Management of dry stack tailings co-mingled with mine waste at the EWL; and dry tailings load out area • Condition 8 – Infrastructure and equipment • Condition 9 – Operational requirements for the dry tailings load out area	
	Seepage of soluble metals / metalloids	Infiltration through underlying soils to groundwater which could lead to a reduction in groundwater quality	Underlying soils and groundwater	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Conditions on existing Licence L4328/1989/10 relating to: • Condition 3 – Management of dry stack tailings co-mingled with mine waste at the EWL; and dry tailings load out area • Condition 8 – Infrastructure and equipment • Condition 9 – Operational requirements for the dry tailings load out area • Condition 17 – Authorised discharge point • Condition 28 – Process monitoring • Condition 29 – Monitoring of ambient groundwater quality	N/A
	PAF wastes and AMD generation	Surface water run-off and seepage to groundwater contaminating and impacting surface	Soil Vegetation Surface water	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Conditions on existing Licence L4328/1989/10 relating to: • Condition 1 – Stormwater management	N/A

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**				
		water bodies and groundwater quality	Groundwater				• Condition 3 – Management of dry stack tailings co-mingled with mine waste at the EWL; and dry tailings load out area • Condition 8 – Infrastructure and equipment • Condition 9 – Operational requirements for the dry tailings load out area • Condition 29 – Monitoring of ambient groundwater quality	
Increase in the disposal of wet tails to the Anson Pits A and B	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 Sites	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	To note: W6734/2022/1 authorises the disposal of wet tails to the Anson Pits A and B through time limited operations Conditions on W6734/2022/1 relating to: • Condition 15 – Operational requirements • Condition 16 – Authorised discharge points	N/A
	Tailings supernatant	Seepage / infiltration of supernatant water through pit walls and base resulting in reduced groundwater quality Potential hydraulic interactions between groundwater and surface water systems causing impacts to surface	Underlying soils and groundwater Ephemeral surface water systems and pools	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	To note: W6734/2022/1 authorises the disposal of wet tails to the Anson Pits A and B through time limited operations Conditions on W6734/2022/1 relating to: • Condition 15 – Operational requirements • Condition 16 – Authorised discharge points	N/A

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**				
		water quality and aquatic fauna					• Condition 17 – Groundwater monitoring during time limited operations • Condition 19 - Water balance during time limited operations	
Overtopping of TSFs		Direct discharge and infiltration through soils to groundwater and adjacent surface water systems Impact to vegetation health if inundated by tailings/	Adjacent soils and vegetation Surface water and groundwater systems	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	To note: W6734/2022/1 authorises the disposal of wet tails to the Anson Pits A and B through time limited operations Conditions on W6734/2022/1 relating to: • Condition 15 – Operational requirements including freeboard • Condition 19 - Water balance during time limited operations	N/A
Pipeline leaks, ruptures or failure	Tailings slurry and decant return water	Direct discharges to land and infiltration to soil resulting in reduced soil and surface water quality and impacting health of surrounding vegetation	Localised soils and groundwater	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	To note: W6734/2022/1 authorises the disposal of wet tails to the Anson Pits A and B through time limited operations Conditions on W6734/2022/1 relating to: • Condition 15 – Operational requirements for the tailings discharge and return pipelines • Condition 16 – Authorised discharge points requiring decant and seepage recovered water to be returned to the processing plant via new and existing	N/A

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**				
							pipelines	
Category 64								
Increased disposal of waste to the Landfill site	Dust	Air / windborne pathway causing impacts to vegetation health and nearby fauna health	Vegetation Priority Flora Fauna Aboriginal Heritage Sites	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	Y	Conditions on existing Licence L4328/1989/10 relating to: • Condition 3 – Management of waste at the Landfill site • Condition 4 – Landfilling activities • Condition 5 – Cover requirements • Condition 6 – Fencing and inspections • Condition 8 – Infrastructure and equipment	N/A
	Windborne waste	Air / windborne pathway potentially contaminating nearby surface water and attracting fauna	Surface water bodies Native and feral fauna	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	Y	Conditions on existing Licence L4328/1989/10 relating to: • Condition 3 – Management of waste at the Landfill site • Condition 4 – Landfilling activities • Condition 5 – Cover requirements • Condition 6 – Fencing and inspections • Condition 7 – Wind-blown waste • Condition 8 – Infrastructure and equipment	N/A
	Seepage / leachate	Infiltration through	Soil	Refer to	C = Slight	Y	Conditions on existing Licence	N/A

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**				
		underlying soils to groundwater impacting surface water and groundwater quality	Vegetation Surface water Groundwater	Section 3.1	L = Unlikely **Low Risk**		L4328/1989/10 relating to: • Condition 3 – Management of waste at the Landfill site • Condition 4 – Landfilling activities • Condition 5 – Cover requirements • Condition 6 – Fencing and inspections • Condition 7 – Wind-blown waste • Condition 8 – Infrastructure and equipment	
	Sediment laden stormwater	Overland runoff impacting surrounding vegetation and resulting in sedimentation of surface water drainage	Surrounding vegetation Surface water bodies	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Conditions on existing Licence L4328/1989/10 relating to: • Condition 1 – Stormwater management • Condition 3 – Management of waste at the Landfill site • Condition 4 – Landfilling activities • Condition 5 – Cover requirements • Condition 6 – Fencing and inspections • Condition 8 – Infrastructure and equipment	N/A
Increased disposal of tyres to the EWL	Dust	Air / windborne pathway causing impacts to vegetation health and nearby	Vegetation Priority Flora	Refer to Section 3.1	C = Slight L = Possible	Y	Conditions on existing Licence L4328/1989/10 relating to: • Condition 3 – Management of tyres at the EWL	N/A

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**				
		fauna health	Fauna Aboriginal Heritage Sites		**Low Risk**		disposal area • Condition 4 – Landfilling activities • Condition 5 – Cover requirements • Condition 8 – Infrastructure and equipment	
	Sediment laden stormwater	Overland runoff impacting surrounding vegetation and resulting in sedimentation of surface water drainage	Surrounding vegetation Surface water bodies	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Conditions on existing Licence L4328/1989/10 relating to: • Condition 1 – Stormwater management • Condition 3 – Management of tyres at the EWL disposal area • Condition 4 – Landfilling activities • Condition 5 – Cover requirements • Condition 8 – Infrastructure and equipment	N/A

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.

4. Consultation

Table 6 provides a summary of the consultation undertaken by the department.

Table 6: Consultation

Consultation method	Comments received	Department response
DEMIRS advised of proposal on 24 May 2024	DEMIRS replied on 10 June 2024 with the following comments: • Mining Proposal REG ID 122942 (under assessment) proposes construction and operation of an additional beneficiation plant processing train, referred to as "Train 4". The main issue related to this installation is the consequences to the operation of the in-pit TSF – not designed/operated to accommodate increase of throughput. The increase in throughput will reduce the life of the facility, changes in water balance (including seepage) and will require additional storage capacity for recovered decant water. These concerns were sent to the Licence Holder by DEMIRS to address the risk and control measures related to these changes. • No comments on the increase the waste disposal capacity from 3,650 tonnes to 9,450 tonnes per annual period (resulting in removal of Category 89 and inclusion of Category 64). • New waste disposal area approved under Mining Proposal REG ID 120114. • No issues with the increase in the waste tyres disposed of to the EWL tyre disposal area from 500 to 950 tonnes. • Inclusion of the additional EWL groundwater monitoring bores were approved under Mining Proposal REG ID 120114.	Comments noted
Kariyarra Aboriginal Corporation advised of proposal on 24 May 2024	No comments were received	N/A
Licence Holder was provided with draft amendment on 30 August 2024	The Licence Holder responded on 11 September 2024 stating "*MARBL does not request changes to the draft Licence or Amendment Report and approves for the consultation period to be waivered so that the licence is able to be issued as soon as possible*."	N/A

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 7 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 7: Summary of licence amendments

Condition no.	Proposed amendments
All	Condition numbering and Table numbering updated as applicable.
Prescribed premises category description	Removal of Category 89 with a design capacity of 3,650 tonnes per annual period. Inclusion of Category 64 with a design capacity of 9,450 tonnes per annual period.
Condition 3, Table 2 for the Landfill site	Removal of reference to 'putrescible' for the landfill site. Increase in the waste disposal limit to the landfill site from 1,650 to 7,000 tonnes per annual period.
Condition 3, Table 2 for the EWL tyre disposal area	Increase in the waste tyres to be disposed of at the tyre disposal area in the EWL from 500 to 950 tonnes per annual period.
Conditions 6 and 7	Removal of reference to 'putrescible' for the landfill site.
Condition 9, Table 4	Figure numbering updated as required. Removal of the TSF3E operational requirements – refer to section 2.2.4 under TSF3E. Inclusion of the Train 4 stormwater retention sump to operational requirements. Inclusion of Train 4 to the Beneficiation plant operational requirements.
New condition 10, Table 5	Inclusion of Condition 10 for the construction requirements associated with the Beneficiation plant – Train 4; Train 4 stormwater retention sump; and additional concentrate storage area.
New condition 11	Inclusion of Condition 11 to allow for the operation of the infrastructure included under Condition 10 following submission of the compliance document.
Condition 12, Table 6 (previous Condition 10, Table 5)	Inclusion of groundwater monitoring bores EWL24_MB001_S and EWL24_MB001_D – refer to section 2.2.3.
Condition 15, Table 7 (previous Condition 13, Table 6)	Removal of reference to TSF3E for the inspection of infrastructure. Condition retained for the Atlas TSF.

Condition no.	Proposed amendments
Condition 17, Table 8 (previous Condition 15, Table 8)	Removal of TSF3E as an authorised discharge point – refer to section 2.2.4 under TSF3E.
Condition 26 (previous Condition 24)	Removal of reference to TSF3E and seepage recovery bores RB1, RB2, RB3 and RB4. The Licence Holder will be required to still undertake a water balance for the active TSF onsite (i.e. Anson Pits A and B) and associated recovery bores.
Condition 28, Table 12 (previous Condition 26, Table 11)	Inclusion of Train 4 to process monitoring (wet ore produced). Administrative update for monitoring bore names.
Condition 29, Table 13 (previous Condition 27, Table 12)	Inclusion of groundwater monitoring bores EWL24_MB001S and EWL24_MB001D. Administrative updates.
Previous Condition 28, Table 13	Removed, refer to section 2.2.4 under Previous Condition 28 – Specified actions.
Condition 31 (previous Condition 30)	Updated in line with current licence format and wording.
Condition 32, Table 14 (previous Condition 31)	Updated in line with current licence format and wording; and administrative updates. Removal of reference to Condition 28 and 33 (refer to section 2.2.4).
Previous Condition 33	Removed, refer to section 2.2.4 under Previous Condition 33 – DTA.
Condition 34	Updated to include reference to the construction works condition; and condition number updates.
Condition 36, Table 15	Updated to include the requirement to submit an Environmental Compliance Report following construction of infrastructure associated with Condition 10, Table 5. Administrative updates.
Definitions, Table 16	Included as required.
Schedule 1: Figures	Updated as applicable.
Schedule 2: Infrastructure and equipment	Updated as applicable.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Licence L4328/1989/10 available at Licences and works approvals search - Department of Water and Environmental Regulation (der.wa.gov.au).
5. Licence L4328/1989/10 Amendment Report – granted 25 July 2023 available at Licences and works approvals search - Department of Water and Environmental Regulation (der.wa.gov.au).
6. Mineral Resources Limited (MinRes) 2024a, *Part V Licence Amendment Application Attachment 3B – Supporting Documentation* (Version 00), MARBL Lithium Operations, 1 May 2024 (DWER reference: A2275941).
7. MinRes 2024b, R*esponse to query from DWER – Wodgina L4328 amendment application*, received 09 August 2024 (DWER reference: A2302814).
8. MinRes 2024c, *Wodgina Lithium Report*, received 18 April 2024 (DWER reference: DWERDT936537).
9. MinRes 2024d, *DER2013/001044-1: MinRes Response to DWER – RE: Licence L4328/1989/10 Condition 33*, received 08 August 2024 (DWER reference: A2301290).
10. Rick van Dam, WQadvice 2024, *Site-specific guideline values for the Wodgina lithium mine*, prepared for MARBL Lithium Operations Pty Ltd by Rick van Dam, WQadvice, Final report, April 2024 (DWER reference: DWERDT937025).
11. W6734/2022/1 Report available at Licences and works approvals search - Department of Water and Environmental Regulation (der.wa.gov.au).