



Application for Licence Amendment

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

Licence Number	L9056/2017/1
Licence Holder	Pilgangoora Operations Pty Ltd
ACN	616 560 395
File Number	DER2017/000318, APP-0032173 INS-0002000
Premises	Pilgangoora Lithium -Tantalum Project Legal description – Mining Tenements M45/1256, L45/417, L45/454, L45/614, G45/350 and G45/351 MARBLE BAR WA 6760 As defined by the premises maps attached to the revised Licence
Date of Report	6 May 2026
Decision	Revised licence granted

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1. Decision summary

Licence L9056/2017/1 is held by Pilgangoora Operations Pty Ltd (the licence holder, wholly owned by Pilbara Minerals) for the Pilgangoora Lithium-Tantalum Project (the premises), located in Marble Bar WA.

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 L9056/2017/1 (L9056) 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 31 October 2025, the licence holder submitted an application to the department to amend licence L9056 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). Additional information and amendments were submitted on 7 November 20025 and 15 December 2025 and were included within this amendment application. The following amendments are being sought:

- Inclusion of infrastructure constructed under works approval W6051/2017/1, including stage 2 expansion processing plant train, P1000 expansion, power station LNG unloading and storage facility and mobile crushing screening plant 1.
- Construction and operation of mobile crushing screening plant 2.
- Category 5 - processing or beneficiation of metallic or non-metallic ore – increasing tailings throughput from 1,800,000 to 2,000,000 tonnes per annum (tpa) and production increase from 6,000,000 to 8,525,000 tonnes per annum (including tailings deposition and new mobile crushing plant 2).
- Category 6 – increase mine dewatering from 256,000 to 282,000 tonnes per annum.
- Category 52 – increase electric power generation from 20.9 to 36 MW per annum.
- Add new category 57 tyre storage facility.
- Category 73 – increase bulk storage of chemical from 1,023 m³ in aggregate to 3,072 m³ in aggregate and 1,840 kL (fixed LNG).
- Implement changes to condition, design and location to category 64 – putrescible land fill.
- Removal of monitoring bore TMFMB003.
- Increase dust suppression volumes from 15,000 to 80,000 m³ per month (Condition 3 Table 4).
- Miscellaneous changes to condition 2 Figure 7, condition 5 Table 6, condition 11, Table 7, condition 12 Table 8, and condition 16 Table 10.
- Addition of a mobile wash pad facility; and

- Change of premises boundary to include M45/1266 (Lynas Find Project area) and M45/78 (see Figure 1).

This amendment is for the addition of category 57 and changes to categories, 5, 6, 52, 64 73 activities including minor administrative and updated condition changes to licence figures. No changes to Category 54 activity were requested.

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

Table 1: Proposed design or throughput capacity changes

Category	Current design/throughput capacity	Proposed design/throughput capacity	Description of proposed amendment
5 - Processing or beneficiation of metallic or non-metallic ore.	6,000,000 tonnes per annum including 1,000,000 of mobile crushing) and 1,180,000 tonnes per annum of tailings deposition.	8,525,000 tonnes per annum (including 1,025,000 tonnes per annum of mobile crushing plant 1 and 1,500,000 tonnes per annum of mobile crushing plant 2) and 2,000,000 tonnes per annum of tailing deposition.	Increase throughput capacity to 8,525,000 tonnes per annum Include tailings deposition to 2,000,000 tonnes per annum Include mobile crushing plant 1 throughput to 1,025,000 tonnes per annum, and operation of proposed mobile crushing plant 2 throughput of 1,500,000 tonnes per annum.
6 - Mine dewatering	256,000 tonnes per annum	282,000 tonnes per annum	Discharge mine dewater from the Lynas Find pit to other pit voids or on-site storages that will contribute to the increase dust suppression watering. Discharge to Pilgangoora Creek will occur if the facility has exceeded water holding capacity (cyclone event).
52 - Electrical power generation	20.9 MW	36 MW	Increase electric power generation capacity to include 16 generated, 4 diesel and 12 LNG operating at 100% maximum efficiency.
57 - Tyre storage	N/A - new category	No more than 250 tyres held at any time.	New category holding no more than 250 tyres at any time.
64 - Putrescible landfill	25,000 tonnes per annum	25,000 tonnes per annum	No change to capacity. Change to the requirements to record the volume of waste disposal.
73 - Bulk storage of chemicals	1,023 m ³ in aggregate	3,072 m ³ in aggregate (for diesel fuels, oils and chemicals) and 1,840 kL (fixed LNG)	Increase bulk storage capacity including the addition of 1,476 kL (diesel fuel), 1,840 kL (fixed LNG) and 560 kL (chemical storage).

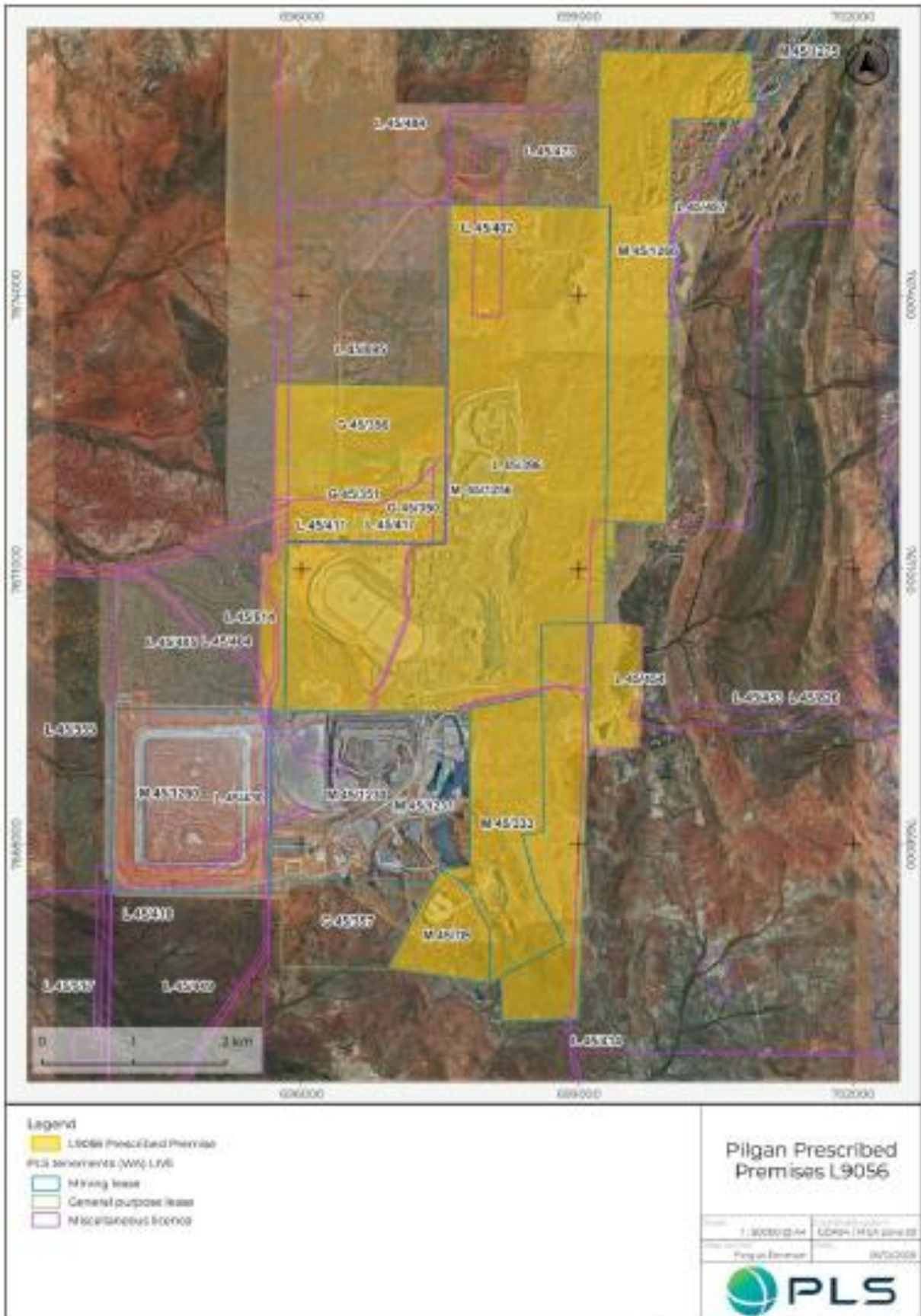


Figure 1: Proposed prescribed boundary (shaded in yellow).

2.2.1 Category 5 activities

Operational - mobile crushing and screening plants 1 and 2, Stage 2 Processing Plant and P1000 infrastructure

Pilgangoora has undertaken works for a mobile crushing and screening plant 1 and Stage 2 processing plant train and P1000 Infrastructure installed under works approval W6051/2017/1 to be added to infrastructure operations condition 5, Table 6. They include:

- Stage 2 Processing Plant Train
 - High pressure grinding rolls
 - Cleaner spirals
 - Primary hydrocyclones
 - Flotation circuit
 - Tailings thickener
 - Ball mill
 - Spodumene concentrate thickener
 - Pressure filter
- P1000 Infrastructure
 - High-intensity magnetic separation circuit
 - Tailings thickener relocation
 - Additional 5 ML process water pond
 - Reagent storage relocation and expansion
 - Sediment pond expansion and site drainage improvements
 - Concentrate handling pad expansion

Key design and operational details of the processing plant are:

- The plant has been constructed on a concrete pad and concrete bunded with a containment capacity equivalent to 110% of the capacity of largest tank.
 - Electric sump pumps have also been installed in the concrete flooring to collect and pump any spilled material back into the process stream.
 - Pipelines have been fitted with pressure transmitters at both ends of the pipelines with alarms to indicate variation in flow pressure.
 - Isotainers, mixing tanks and storage tanks will be located on a concrete bunded area with plinths within the Processing Plant.
 - Spray/sprinkler systems have also been installed at the crusher conveyor transfer points.
- Crushing and screening plant 1 and crushing and screening plant 2 (once constructed) and associated infrastructure.
 - Sediment ponds were located at topographic low points within the processing and support infrastructure area to capture all stormwater and plant-runoff.
 - The facilities are contained, so there is no contaminated runoff to be discharged into any drainage line or watercourse.

Works – mobile crushing and screening plant 2

Operational trials with higher levels of contaminated ore feed to the crushing and ore sorting circuit have shown potential benefits, such as lowering feed quality and increasing ejection rates. However, the existing circuit is neither capable nor licensed to sustainably manage this additional material. To address this, a capital expansion is required through the construction of a second primary crushing circuit. Pilgangoora proposes to construct and operate a second mobile crushing and screening plant, designed to the same specifications and operating under the same conditions as the first plant approved under Works Approval W6051/2017/1. This will include updates to works condition 21 Table 13.

2.2.2 Category 6 activities

Pilgangoora is seeking to increase its licence discharge volumes from 256,000 to 282,000 tpa, an increase of 26,000 tpa. This additional discharge allowance supports the development of the Lynas Find open pit.

Mining at Lynas Find pit is planned to begin in 2027. Dewatering from this pit is expected to be fresh to slightly brackish, generally between 400 – 3,000 mg/L. Most inflow is likely to come from fresh rainfall, with only a small groundwater component.

Where possible, dewatering will be diverted into other pit voids and on-site storage so the water can be reused across operations, particularly for dust suppression. Licensed discharge would only occur when internal storage or reuse options are limited for example in high rainfall events (see sections 2.2.7 and 2.4.1 for further dust suppression details). Condition 5 Table 6, Row 8 Pilgangoora Creek discharge is proposed to be changed to 282,000 tpa of mine dewater to accommodate Lynas Find pit discharge.

2.2.3 Category 52 activities

Pilgangoora is currently authorised under category 52 – electric power generation to produce 20.9 MW using 10 diesel generators. Works approval W6051/2017/01, authorised the expansion of the power station to include 16 generators in total: 4 diesel-powered and 12 LNG-powered units.

This expansion increased the station's maximum capacity to 36 MW. An Environmental Compliance Report for the construction works was submitted in July 2024. It is now proposed to amend licence L9056 to increase production capacity accordingly in Condition 5, Table 6.

2.2.4 Category 57 activities (new)

Pilgangoora propose to add a new category 57- tyre storage facility, storing up to 250 tyres on the premises at any one time in accordance with Guidance Note GN02 – Bulk Storage of Rubber Tyres Including Shredded and Crumbed Tyres (DFES 2020).

Tyres from light vehicles, trucks and heavy machinery are then proposed to be disposed of into waste rock dumps. Drainage, safety, soil erosion and stability will be controlled at all tyre disposal locations within waste rocks dumps as the tyres will be covered in accordance with Regulation 12(2b) of the *Environmental Protection Regulations 1987* (EP Regs) and therefore exhibit the same characteristics as the waste rock dumps themselves. Waste rock material that comprises all approved dumps within the Pilgangoora project is coarse enough in size to mitigate drainage, erosion and stability issues.

Pilgangoora is seeking flexibility in the location of tyre storage area(s), as the final locations for supporting infrastructure (including landfill, warehouses, workshops and laydown areas) have not yet been finalised. Pilgangoora may also require more than one tyre storage location to reduce fire risk and to ensure continued access following rainfall events or operational shutdowns.

All disposal sites will be surveyed and recorded, with the number of tyres and their respective

locations reported in the annual report to the department. Condition 5 Table 6 and Figures 3 and 4 in Schedule 1 are amended to reflect changes in landfill locations.

2.2.5 Category 64 activities

Pilgangoora is seeking approval to amend the location of its Category 64 putrescible landfill. The company proposes that the landfill conditions in Condition 5, Table 6, Row 14 be retained, except for the following change.

The existing requirement — “*The volume of waste disposed into the landfill is recorded*” — would be amended to:

“*The volume of waste disposed of into the landfill will be recorded based on an estimate of average weekly disposal. The waste is measured in bulk cubic metres (BCM).*”

The new facility will be built within the premises boundary to meet the requirements of *the Environmental Protection (Rural Landfill) Regulations 2002*, the Landfill Waste Classification and Waste Definitions 1996, and the ASC NEPM. A range of factors were considered when selecting the proposed location, including:

- Depth to groundwater (>5 m)
- Distance from any watercourse (>250 m)

In addition to Figure 4 in Schedule 1, Figure 3 will be required to reflect the location of existing and proposed landfill sites.

2.2.6 Category 73 activities

Pilgangoora proposes to add infrastructure completed under works approval W6051/2017/1 for bulk storage of chemicals etc to Condition 5, Table 6, Row 5. This includes diesel tanks, reagent storage, and LNG storage tanks, bringing the assessed storage capacity from 1,023 m³ in aggregate to 3,072 m³ in aggregate (for diesel fuels, oils and chemicals) and 1,840 kL (fixed LNG).

Noting that four 368 kL cryogenic LNG storage tanks with a further 100 kL allowance for road train delivery and the gasification plant were installed to ‘AS3961/2017 - The storage and handling of liquefied natural gas’.

2.2.7 Other requested amendments

Groundwater monitoring bore / piezometer amendments

Pilgangoora propose to reduce the number of piezometers being monitored to determine phreatic surface within TMF cell 1 from eight to six in Condition 5, Table 6. Two piezometers have been destroyed by mining activities.

Pilgangoora proposes to remove monitoring bore TMFMB003 from Condition 12, Table 8 and associated Figure 6 in Schedule 1. The monitoring bore was destroyed by mining development works and a non-compliance report was submitted to the department. Two nearby bores PMB001 (located south of TMFMB003) and PMB003 (located east of TMFMB003) will continue to be monitored.

Change to float cut off system

Pilgangoora proposes removing the ‘*Float cut off system maintained to prevent overflow (Process Water Pond)*’ from Row 11 Condition 5, Table 6. Alternative controls are in place to mitigate overflow including bore network telemetry and regular dredging of the pond. A cut-off system introduces additional risk of tripping the processing plant, which can lead to increased overflow risk.

Administrative changes to Condition 11

Pilgangoora has requested two amendments to Condition 11, Table 7. The first is to replace 'chlorine' with 'chloride'. Pilgangoora considers chlorine to be an unsuitable analyte for 'Decant water within the TMF 1 and 2,' as chlorine is otherwise only applied to wastewater testing under Licence L9056. In contrast, chloride is used across a range of other surface water and groundwater monitoring suites in the licence.

Pilgangoora also proposes removing the duplicated parameters for Nitrite (NO₂ as NO₂) and Nitrate (NO₃ as NO₃) from Table 7, as each is currently listed twice.

Proposed changes to Condition 12

Pilgangoora seeks three amendments to Condition 12, Table 8:

- Reduce the SWL trigger from 7 m to 6 m for ambient groundwater monitoring bores PMB021 and PMB022. Both bores have a total depth of 6 m and cannot measure the existing trigger level, meaning they cannot record a reportable exceedance as intended.
- Correct the fluoride limit reference. The table refers to PMB002, which does not exist. This appears to be a typo and should be replaced with PMB022.
- Correct the name of monitoring bore PMB045, which has been mistakenly listed as PWB045 for the gross alpha limits.

Proposed changes to Condition 16

Pilgangoora seeks two amendments to Condition 16, Table 10. The first is to clarify that continuous monitoring with a flow-metering device is not required for the Sediment Pond East, Sediment Pond 3 and Sediment Pond 4 discharge points.

The second amendment is to confirm that continuous monitoring with a flow-metering device is required for the Sediment Pond West discharge point.

Change of premises boundary

Pilgangoora is seeking to add Mining Tenements M45/78 and M45/1266 to the licensed premises. Mining Tenement M45/1266 contains the Lynas Find open pit, which is planned to be mined by Pilgangoora from 2027. Mining Tenement M45/78 is proposed to be added to ensure that dust suppression activities at the southern end of the South waste rock landform are covered under the licence. Dust suppression activities will use fresh water and decant water.

Pilgangoora holds the mining lease for M45/78 until 15 December 2037 and for M45/1266 until 25 September 2039.

Increase dust suppression volumes and area

Pilgangoora is seeking to increase the approved monthly limit for using tailings management facility (TMF) decant and seepage water for dust suppression from 15,000 m³ to 80,000 m³ (changes to Condition 3, Table 4).

Four new seepage recovery bores (PWB038, PWB039, PWB040 and PWB041) have recently been installed, improving PLS's ability to manage groundwater mounding caused by TMF seepage. This has helped maintain compliance with TMF monitoring trigger levels. However, at times Pilgangoora must reduce abstraction to avoid exceeding the current licensed limit, which is made harder by limited capacity in the process water ponds.

Raising the limit to 80,000 m³ per month will allow PLS to operate the seepage recovery bores more effectively, by controlling groundwater levels better, and further reducing the risk of TMF trigger level exceedances. Table 2 outlines the seepage recovery rates for 2025.

Table 2: Licence holder seepage recovery of TMF for 2025

Area	Seepage Recovery (kL/m)	Decant (kL/m)	Underdrainage to plant (kL/m)	TOTAL
Jan-25	9,977	38,355	15,993	64,325
Feb-25	9,012	58,721	9,969	77,702
Mar-25	12,796	20,134	6,331	39,261
Apr-25	19,078	47,171	8,416	74,665
May-25	16,039	31,183	3,377	50,599
Jun-25	18,958	40,507	3,499	62,964
Jul-25	35,704	27,841	3,400	66,945
Aug-25	42,238	6,415	8,733	57,386
Sep-25	42,418	12,103	8,733	63,254
Oct-25	49,614	6,943	8,733	65,290
Nov-25	47,866	11,222	8,733	67,821
Dec-25	43,036	21,448	8,733	73,217
Ave.	28,895	26,837	7,887	63,619
Max	49,614	58,721	15,993	124,328

Furthermore Pilgangoora are seeking to increase dewatering rates by 26,000 tpa for the expansion in Lynas Find pit, dewatering is proposed to be dominately used for dust supression activities.

Pilgangoora is requesting additional areas for the usage of decant and seepage water for dust supression activities. This involved updating Figure 7 in Schedule 1 with the Figure 2 below, and updating Condition 2 Table 3 reference to include decant water from Lynas Find pit in Item 4 '*TMF Decant Water and Seepage water*'.

Mobile self-contained wash pad facility

Pilgangoora proposes to install and operate a lightweight mobile wash-pad facility. This will require amendments to Condition 5, Table 6 and the addition of new works conditions (Condition 27 Table 13).

The wash pad is a fully self-contained unit that recirculates water for re-use. It includes an oily water separator, a recycling unit, pumps, a water supply system and solids-settling tanks. Because the unit is fully self-contained, there are no discharges to the environment.

The facility will sit within an earthen bund to prevent any unauthorised releases. All waste will be taken to a licensed facility. Waste from the solids-settling tank will be sent to the onsite bioremediation area for treatment.

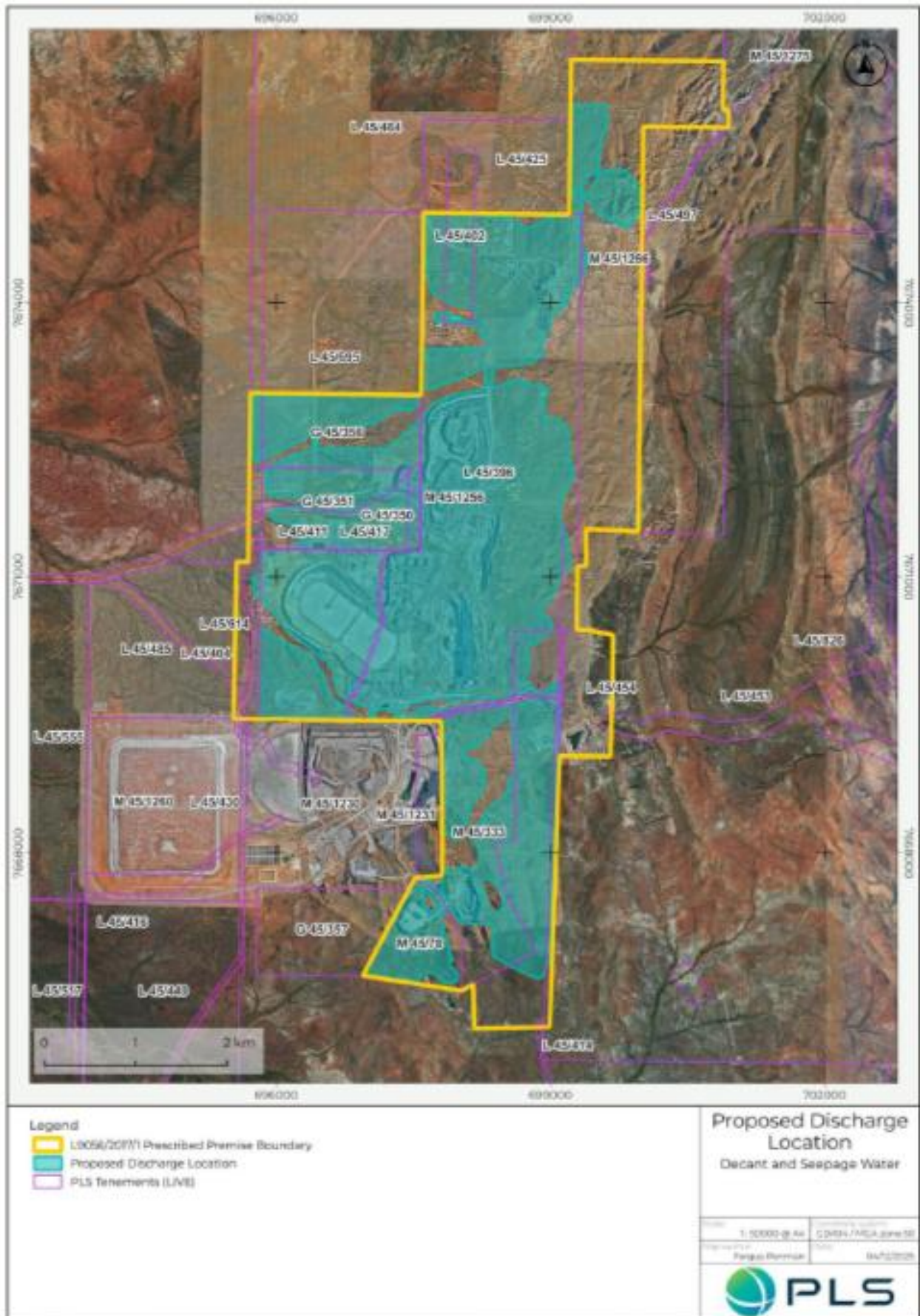


Figure 2: Licence holder's proposed dust suppression area coloured teal.

2.3 Works approval – compliance overview

2.3.1 Works approval W6051/2017/1

Category 5 activities – Stage 2 processing plant and P1000 infrastructure

Category 12 activities - Mobile crusher and screening plant 1

The construction works for the Stage 2 Processing Plant and P1000 Infrastructure have been completed as per works approval W6051/2017/1, Table 7, Items 5, 6 and 8-15 respectively and have been deemed compliant in November 2023 and August 2025 respectively.

The construction works for the Mobile Crushing and Screening Plant has been completed as per Works Approval W6051/2017/1, Table 7, Items 20. Construction was completed in October 2024, along with an Environmental Compliance Report submitted to the department on 28 October 2024.

Category 52 activities - electrical power station

The construction works for the Power Station Expansion have been completed as per Works Approval W6051/2017/1, Table 7, Items 14. Construction and Environmental Compliance Report was submitted in July 2025. The expansion was deemed compliant in August 2025.

Category 73 activities – storage of bulk chemicals etc.

An LNG Unload and Storage facility was also constructed as part of the Pilgan P1000 expansion project, listed under Works Approval W6051/2017/1 that was deemed compliant in August 2025.

2.4 Discharge water quality assessment

2.4.1 Lynas Find pit

Pilgangoora provided water quality results for several monitoring points LFMB001, LFMB002, LFMB004 and LFMB005 across multiple sampling dates, with a full laboratory suite reported for some events and only field parameters (or partial data) reported for others.

Pilgangoora findings were:

- LFMB004 is a clear outlier for salinity. Where full chemistry is reported (for example 7 Jan 2026 and 19 Oct 2025), LFMB004 shows very high salinity indicators, including EC ~9,942–10,000 $\mu\text{S}/\text{cm}$, TDS ~5,410–5,720 mg/L, and elevated major ions such as chloride (~3,010–3,030 mg/L) and sulfate (~5,410–5,720 mg/L).
- Other points are comparatively fresh to mildly brackish. Where reported, LFMB001, LFMB002 and LFMB005 generally show much lower EC (~844–1,317 $\mu\text{S}/\text{cm}$) and TDS (~472–584 mg/L) than LFMB004.
- pH is mostly neutral to mildly alkaline across the dataset (generally around ~7.0–8.6, where measured).
- Dissolved metals are generally low in the full-suite datasets (many results are at or near low reported values), although some location-to-location differences are evident (for example lithium is higher at LFMB004 than the other points in the full suite results).
- Major data completeness gap. Many sampling rows contain only a small subset of parameters (for example EC, pH and SWL), with most laboratory analytes blank. This limits trend assessment and reduces confidence when comparing results between sampling rounds.
- LFMB004 warrants ongoing focus. The consistently higher salinity/major ions at LFMB004 (where full suites exist) should be treated as a priority issue for follow-up and contextual explanation (for example differing hydrochemistry/source or local influence),

noting the dataset's gaps restrict robust temporal conclusions.

- Noted that excess pit sump water transfer from Lynas Find pit is likely to follow freshwater inflows from direct rainfall when discharging to Pilgangoora Creek.

2.4.2 Department review of dust suppression sources

Pilgangoora proposes to increase the approved monthly use of tailings management facility (TMF) decant and seepage water for dust suppression from 15,000 m³ to 80,000 m³. This increase would also include dewatering from Lynas Find Pit.

A departmental review of the Lynas Find water quality data reached conclusions consistent with those presented by Pilgangoora.

Considering the existing seepage recovery bores and the four newly installed bores, the Contaminated Sites Branch has reviewed the available site data and considers the current groundwater monitoring program to be adequate to support the proposed increase. The Branch considers that the increased use of seepage water for dust suppression would not result in a significant change to the level of environmental risk at the site but acknowledges the data gaps and will impose six monthly water quality sampling on discharge water from Lynas Find pit.

2.5 Other Approvals

2.5.1 DMPE Mining Act 1978

The Department of Mines, Petroleum and Exploration (DMPE) has advised that Pilgangoora Operations is subject to two mine development closure plans (Reg ID 204715 and Reg ID 205614). Both applications are awaiting further information from the proponent and may change. Reg ID 204715 proposes additional pits, waste rock landforms, processing infrastructure and amendments to existing pit, waste rock landform (WRL), run-of mine (ROM) and stockpile designs. Reg ID 205614 proposes tailings storage facility capping and encapsulation works, and design changes to the South Pit and Pilgangoora Creek/South 1 WRL. Licence L9056/2017/1 is referenced only in relation to landfill management and emergency discharge. Overall, DMPE has no significant findings or considerations for the proposed amendment.

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

Emission	Sources	Potential pathways	Proposed controls
Construction – crushing and screening			
Dust	Construction of crushing screening plant and wash pad	Air/windbourne pathway	EMISSION SCREENED OUT DUE TO DISTANCE TO SENSITIVE RECEPTORS.
Noise		Air/windbourne pathway	EMISSION SCREENED OUT DUE TO DISTANCE TO SENSITIVE RECEPTORS.
Operation			
Category 5 and 52			
Dust	Operation of Stage 2 Processing Plant, P1000 expansion, two mobile crushing and screening plants and supporting infrastructure Operation of stage 2 power station Operation of wash down pad	Air/windbourne pathway and reducing photosynthesis of vegetation	Existing dust controls including windrows and regular removal of loose material from the engineered surface (cement stabilised pads) to be retained and extended across the new footprint. Water sprayers fitted to crushing and screening plants to minimise dust emissions. Processing plant train is a wet plant process, existing licence conditions appropriate. Stage 2 processing plant: <ul style="list-style-type: none"> •Spray/sprinkler systems installed at the crusher conveyor transfer points •Spray/ sprinkler systems in crushing circuit •Equipped with a functioning dust suppression system •Water sprays on all transfer points and a deluge system on the ROM bin •All large dry screens incorporate water sprays and/or dust covers. •Stockpiles from the COSC, employ the use of luffing radial stackers providing dust minimisation by keeping the discharge height ~ 500mm above the top of the stockpile. •Dust suppression using water trucks. •The maximum stockpile height is 12 m.
Noise		Air/windbourne pathway	EMISSION SCREENED OUT DUE TO DISTANCE TO SENSITIVE RECEPTORS.
Contaminated stormwater		Direct discharge	Power plant has: <ul style="list-style-type: none"> •Sediment ponds are located at a topographic low points within the processing and support infrastructure area to capture all stormwater and plant-runoff; and •Facility contained so no contaminated runoff to be discharged into any drainage line or watercourse. Mobile crushing and screening <ul style="list-style-type: none"> •Windrows constructed around mobile crushing and screening plant to collect and direct stormwater into sump for filtering before being directed to a sediment pond.
Spills leaks and overflow of containments including		Direct discharges from leaks and spills	Process plant / P1000 reagents: <ul style="list-style-type: none"> •Continuous concrete tanker unloading slab, segregating each reagent type by roll-over bunding. • Each reagent storage facility is contained within individual bunded areas sized to 110% of the largest held capacity with local sump pumps to manage rainfall and removal of spillage; and

Emission	Sources	Potential pathways	Proposed controls
hydrocarbons, reagents, process water pond and raw water tank			<ul style="list-style-type: none"> • All strong acid and base storage areas include pH monitoring of sumps to alert operators to reagent spillages. • Plant constructed on a concrete pad and concrete bunded with a containment capacity equivalent to 110% of the capacity of largest tank • Electric sump pumps installed in the concrete flooring to collect and pump any spilled material back into the process stream • Pipelines fitted with pressure transmitters at both ends of pipelines with alarms to indicate variation in flow pressure • Isotainers, mixing tanks and storage tanks will be located on a concrete bunded area with plinths within the Processing Plant area <p>Process water pond:</p> <ul style="list-style-type: none"> • Minimum freeboard of 300mm will be maintained in the pond • Water collected in the ponds will be reused in processing • Wastewater monitoring • Two cells lined with minimum 1.8 mm thick HDPE liner <p>Raw water tank:</p> <ul style="list-style-type: none"> • 1.833 ML capacity (with 288 kL reserved for fire water capacity) • HDPE lined steel impermeable tank • Fully covered • Monitored after each runoff event to initiate pumping of the retained water into the process circuit or used for dust suppression • Minimum freeboard of 300mm will be maintained in the ponds • Liner to be maintained via regular inspections • Monitored after each rainfall event to check for adequate freeboard being available and to initiate pumping of the retained water into the process circuit or used for dust suppression <p>Power plant:</p> <ul style="list-style-type: none"> • Spill kits are located at various locations including diesel store, reagents store and plant maintenance areas to enable quick response to leaks and minor spills of hydrocarbons and chemicals; • Drainage at the power station units be graded such that spills and surface water flow enters a triple oil/water interceptor; • Oily water separator, with oil from the separation process stored in a 1,000 L tank prior to disposal offsite; • Licence requires treatment to TRH <15 mg/L; • Waste oil tanks self-contained double skin design within concrete aprons; and • Fully enclosed metal storage bin for used oil contaminated parts which are collected for disposal offsite. <p>Wash down pad:</p> <ul style="list-style-type: none"> • Wash down pad is self contained including associated pumps, water recycling, water supply and solids settling tanks. • Wash pad has an oily water separator and recycling unit. • Wash down pad will be surrounded by an earthen bund. • Waste products removed from site to an authorised licenced facility.

Emission	Sources	Potential pathways	Proposed controls
			<p>TMF</p> <ul style="list-style-type: none"> •Tailings waste will operate under existing licence conditions.
Sediment laden water in sediment pond		Direct discharge	<p>P1000 area constructed to ensure:</p> <ul style="list-style-type: none"> •10% AEP, 24 hour storm event has been adopted as a practicable engineering sizing criterion for run-off catchment capacity of processing area •Effective 4.5 hour retention time for the structure in a 1% AEP event. <p>Storm water from the power station will be directed to the infrastructure sedimentation pond. Minimum freeboard of 300mm will be maintained in the pond Inspected as required, and before known significant rainfall events to ensure they are capable of functioning to remove sediment during high-rainfall events. Surface water monitoring sites which will include upstream and downstream sites of the (entire) operation.</p>
Gaseous air emissions of nitrogen oxides, sulfur oxides, carbon monoxide, volatile organic compounds and particulate matter		Air/windbourne pathway	<p>The power station engine hall has gas detectors installed as necessary to detect leakage and alarm / shut-down the facility; and Reduction in overall CO2e emission intensity due to change of fuel source. LNG loading and unloading:</p> <ul style="list-style-type: none"> •No anticipated emissions during unloading or vaporisation operation; •LNG venting from tank overpressure is anticipated to be extremely rare due to a regular delivery schedule which is significantly less than tank rated “hold time” and is installed for tank protective purposes only; and •The LNG storage facility has gas detectors installed to detect leakage and alarm / shut-down the facility. <p>EMISSION SCREENED OUT DUE TO DISTANCE TO SENSITIVE RECEPTORS.</p>
Tailings and wastewater enriched with lithium, thallium, bismuth and tantalum	Process water pond, tailings thicker, high - intensity magnetic separation circuit (within P1000 expansion)	Direct discharge by overtopping Seepage through base and embankments Fauna ingress to areas	<p>Process water pond:</p> <ul style="list-style-type: none"> • is fenced; • has high density polyethylene (HDPE) liner; • level monitoring to control system; • engineered overflow spillway to site catchment drainage; • bunding of discharge process water pumps. <p>Tailings thickener is situated in a bunded catchment sized 110% of the capacity of the thickener with sump pumps for material recovery back to the process plant in event of spillage. Magnetic separation circuit contained within a bunded structure, sized in excess of 110% of the largest held capacity complete with sump pumps for material recovery to process in the event of spillage.</p>
Elevated levels of aluminium, arsenic, copper, chromium, zinc, boron, lithium and nitrate into	Dust suppression activities	Direct discharge	Existing licence controls, including metered, groundwater monitoring program.

Emission	Sources	Potential pathways	Proposed controls
the environment			
Category 6			
Contaminated Lynas Find pit water	Lynas find dewatering	Direct discharge to land and waterways	During periods of flow in the four creeks (Northern, Houston, Pilgangoora, Southern) at a minimum of once annually, surface water samples will be collected at one site upstream of the project and one site downstream of the Project with laboratory analyses for pH, TDS, TSS, electrical conductivity, major cations and anions, and contaminants. Flow meter measure flow rate and volume. Visual inspection of dewatering pipelines every 12 hours.
Categories 57 and 64			
Leachate to groundwater	New putrescible land fill location and tyre storage	Seepage through base and embankments	<p>As per current licence conditions:</p> <ul style="list-style-type: none"> •The landfill has a capacity of 25,000 tonnes per annum and must only be located within the areas shown in Schedule 1, Figure 4. •Only putrescible waste, inert waste and tyres may be disposed of at the landfill. •Putrescible and inert waste must be disposed of in separate trenches (cells). •Trenches must be covered with soil material at least once per fortnight. •Waste must be placed and compacted to ensure all faces are stable and capable of retaining restoration material. •Waste must be levelled and compacted as soon as practicable after placement, using: <ul style="list-style-type: none"> ❖ maximum 300 mm lifts, and ❖ at least 3 passes by heavy earthmoving machinery. •The active tipping face must be kept to a minimum and must not exceed: <ul style="list-style-type: none"> ❖ 30 metres in length, or ❖ 2 metres above ground level in height. •Landfilled waste must be covered with sufficient clean fill (for example 100 mm) at least weekly, so no waste is exposed. •Cells (trenches) must be restored within 6 months of disposal in that cell being completed. •Sufficient dense, inert and incombustible cover material must be stored onsite and be readily available at all times. •Appropriate and adequate signage must be maintained around the landfill site. •Windblown waste must be collected and returned to the landfill on a regular basis, and at least monthly, in accordance with the Licence Holder's Waste and Landfill Management Procedure. •Unserviceable tyres must be transported to a designated area within the approved waste rock dump disturbance footprint, stacked appropriately, and periodically buried in accordance with Regulation 14(2) of the <i>Environmental Protection Regulations 1987</i>. •No hydrocarbons or chemicals may be disposed of at the landfill. <p>New proposed control:</p> <ul style="list-style-type: none"> •The volume of waste disposed of into the landfill will be recorded based on an estimate of average weekly disposal. The waste is measured in bulk cubic metres (BCM).
Windblown waste and dust		Air/windbourne pathway	
Odour		Air/windbourne pathway	

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> • The new facility will be constructed to meet the requirements of the EP (Rural Landfill) Regulations 2002, as well as the Landfill Waste Classification and Waste Definitions 1996, and ASC NEPM, including: <ul style="list-style-type: none"> ❖ Depth to groundwater (>5 m) ❖ Distance from any watercourse (>250 m) advocated 800 m (for landfill). ❖ Tyres may be disposed of by burial under a final soil cover of not less than 500 mm in batches separated from each other by at least 100 mm of soil and each consisting of not more than 1000 whole tyres. ❖ All disposal sites will be surveyed and recorded, with the number of tyres and their respective locations reported in the annual report. ❖ The landfill site will be surrounded by a man-proof fence, or bunds at least 2 m tall on three sides to minimise wind-blown rubbish as well as to prevent surface water runoff entering the trench. ❖ Survey and the site location recorded prior to closure of each landfill site. <p>Drainage, safety, soil erosion and stability will be controlled at all tyre disposal locations within waste rock dumps as the tyres will be covered adequately and therefore exhibit the same characteristics as the waste rock dumps themselves.</p>
Fire		Air/windbourne pathway	<p>No more than 250 tyres stored above ground at any one time.</p> <p>Controls to be in place for the storage of 100 or more used tyres will be in accordance with Guidance Note GN02 – Bulk Storage of Rubber Tyres Including Shredded and Crumbed Tyres (DFES 2020). Controls include:</p> <ul style="list-style-type: none"> • Used tyres to be stored: <ul style="list-style-type: none"> ❖ Within racking systems on their sides or upright ❖ On pallets ❖ In portable systems that can be readily moved by forklift ❖ On the ground in a laced arrangement to create overlap (see Figure 5 in DFES document) • Individual stacks will not exceed 3.7 m in height, 60 m² in area and/or 12.5 t in weight • A maximum of four individual stacks will be grouped together, with each group of four stacks referred to as a pile. Each stack will be separated by at least 2.5 m • Each pile of four stacks will be separated by at least 18 m • Stacks will be no closer than 18 m to buildings with combustible external walls and no closer than 6 m to buildings with non-combustible external walls • Used tyres will not be stored inside buildings • Used tyres will not be shredded or crumbed
Category 73			
Leachate to groundwater	Hydrocarbon and chemical storage	Spills and leaks of containments	<ul style="list-style-type: none"> • Diesel tank stored in above ground self bunded tanks • Bunded concrete pad with a drain at the tanks for both fast-fill (haul packs) and light vehicle refueling. Drain leads to self bunded tank sumps to a local sump, pumped to oil water separator. • Oil water separators treat hydrocarbon waste to a maximum total petroleum hydrocarbon (TPH) concentration of <15mg/L which will be monitored monthly. • Coolants, lubrication and hydraulic oils for servicing the mobile fleet will be stored within workshop, maintenance and reagent areas.

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> •All fuel storage and dispensing facilities will be constructed and managed in accordance with the 'Australian Standard for Storage and Handling of Flammable and Combustible Liquids' (AS 1940-2004). All of these materials will be stored on drip trays or within steel or concrete bunded areas. •Two secondary containment systems - sedimentation traps, one at the processing plant area and a second at the mining contractor's area. •Transfer pumps/pipelines fitted with pressure transmitters. •Concrete bunded area containing plinths for the location of isotainers, mixing tanks and storage tanks located within the processing plant area.

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 4 below provides a summary of potential human and environmental receptors that may be impacted because 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

Sensitive receptors	Distance from prescribed activity
South Hedland	<p>Located more than 70 km north of the premises. Distance of premises to closest sensitive land use is sufficient to inform that project activity impacts are not foreseeable.</p> <p>This receptor is not considered to be impacted during construction or operations and therefore not further considered in the risk assessment.</p>
Residential premises	<p>Wallarenya Homestead located more than 30 km north of the premises. Indee Station located more than 30 km northwest of the premises. Distance of premises to residential premises is sufficient to inform that project activity impacts are not foreseeable. These receptors are not considered to be impacted during construction or operations and therefore not further considered in the risk assessment.</p>
Aboriginal Heritage	Distance from prescribed activity
<p><u>Registered Aboriginal Heritage Site</u> Tulkuwarrana site ID: 7135</p>	<p>Tulkuwarrana site intersects with proposed prescribed premises boundary expansion (mining tenements M 45/333 and M 45/511).</p> <p>Whole M45/1256 is located within the buffers of Pilgangoora Historic Aboriginal Camp – a lodged site. Closest registered site is PILGANGOORA 1 – a quarry, within approximately 3.5km from proposed circuit.</p> <p>Direct risks posed to Aboriginal Heritage sites are regulated under Aboriginal Heritage Act 1972. Applicant is reminded of its obligations under the Aboriginal Heritage Act 1972</p>
Environmental receptors	Distance from prescribed activity
<p><u>Flora</u> Three priority 3¹ species including:</p> <ul style="list-style-type: none"> • <i>Euploca mutica</i> (previously named <i>Heliotropium muticum</i> and identified in a 2016 survey by MMWC Environmental Pty Ltd) • <i>Rothia indica</i> subsp. <i>australis</i>; and <i>Triodia chichesterensis</i>. 	<p><i>Euploca mutica</i> is located adjacent to the wastewater irrigation spray field and responds to disturbance.</p> <p>The Pilgan project's impact on flora and vegetation has already been assessed and approved under Mining Proposal REG ID 117446 and Clearing Permits CPS 8175/3 and 10388/1 are current and remain in place.</p>

¹ Priority 3 species are poorly known species that are known from several locations and are not under imminent threat but do not meet the adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey (DBCA, 2023).

<p><u>Fauna</u></p> <ul style="list-style-type: none"> • Northern Quoll (<i>Dasyurus hallucatus</i>), listed as Endangered under the EPBC Act and BC Act, • Western pebble-mound mouse (<i>Pseudomys chapmani</i>) is listed as Priority 4 by DBCA • Brush-tailed Mulgara (<i>Dasyercus blythi</i>) is listed by DBCA as a P4 • Greater bilby (<i>Macrotis lagotis</i>) listed as Vulnerable under the EPBC Act and BC Act • Ghost bat (<i>Macroderma gigas</i>) is listed as Vulnerable under the EPBC Act and BC Act • The Grey falcon (<i>Falco hypoleucos</i>) is listed as Vulnerable under the BC Act 	<p>Located within project site.</p>
<p>27 species of stygofauna and 14 species of troglofauna</p>	<p>Almost all stygofauna records appeared to be associated with alluvial aquifers, whilst the troglofauna records were associated with Banded Iron Formations. No records were retrieved of subterranean fauna in the dominant basalt and ultramafic in the Project area</p>

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 considers 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 L9056/2017/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. mining activities.

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	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	C = consequence L = likelihood			
Construction								
Construction of mobile crushing and screening plant, and wash down pad including vehicle movements (reversing beepers).	Dust	Air/windborne pathways cause impacts to amenity, and reducing photosynthesis of vegetation	No residences or other sensitive receptors in close proximity.	No controls	Minimal onsite impact to amenity C=Slight The risk event will probably not occur in most circumstances L=Unlikely Low Risk	Y	No conditions	The delegated officer considered the distance to receptors, the licence holder's controls, the short time period of the disturbance, and determined that the risk of dust and noise impacting on amenities to be low. No regulatory controls to manage the impacts are required.
	Noise	Air/windborne pathway causing impacts to amenity				Y		
Operation								
Category 5								
Operation of Stage 2 Processing Plant and using mobile crushing and screening plants (1 and 2) including 5ML process pond, sediment pond Vehicle movements	Dust	Air/windborne pathways cause impacts to amenity, and reducing photosynthesis of vegetation	No sensitive residences, surrounding vegetation around mining activities.	Sprayer, sprinkler systems on transfer points for crushing circuit, processing plant, crushing operations, windrows, removal of loose material, existing licence conditions. Refer to Table 3: Licence holder controls	Minimal onsite impact to amenity C=Slight The risk event will probably not occur in most circumstances L=Unlikely Low Risk	Y	Operation - Condition 5 Construction - Condition 27	The delegated officer considered the distance to receptors, the licence holder's controls and determined the risk of dust impacting on reducing photosynthesis of vegetation to be low. The delegated officer considered the licence holders controls to be sufficient to manage the risk and conditioned within the licence.
	Sediment laden stormwater	Direct discharge, overland runoff potentially contaminating soil, groundwater, vegetation or impacting surface water quality	Soil, groundwater and surrounding vegetation.	Sediment pond locations, windrows, sumps, drainage lines, existing licence conditions. Refer to Table 3: Licence holder controls	Low level onsite impacts C=Minor The risk event will probably not occur in most circumstances L=Unlikely Medium Risk	Y	Operation - Condition 5 Construction - Condition 27	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of sediment laden stormwater impacting receptors to be medium. The delegated officer considered the licence holders controls to be sufficient to manage the risk and conditioned these within the licence.
	Spills leaks and over topping of containments.			Process plant reagents constructed and maintained on concrete bunded areas, with sumps, pumps, pH monitoring, process water pond minimum 300mm freeboard, cells and tanks lined, level and water monitoring, existing licence conditions. Refer to Table 3: Licence holder controls	Low level onsite impacts C=Minor The risk event will probably not occur in most circumstances L=Unlikely Medium Risk	Y	Operation - Condition 5	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of spills, leaks and over topping of containments impacting receptors to be medium. The delegated officer considered the licence holders controls to be sufficient to manage the risk and conditioned these within the licence.
Washdown vehicle pad	Contaminated stormwater including hydrocarbons	Direct discharge to ground contaminating soil, groundwater and surface water bodies	Soil, groundwater and surrounding vegetation.	Self-contained, earthen bund, waste products removed, oily water separator. Refer to Table 3: Licence holder controls	Low level onsite impacts C=Minor The risk event will probably not occur in most circumstances L=Unlikely Medium Risk	Y	Operation - Condition 5 Construction - Condition 27	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of contaminated stormwater impacting receptors to be medium. The delegated officer considered the licence holders controls to be sufficient to manage the risk and conditioned these within the licence.
Dust suppression with de-water from Lynas Find Pit	Elevated levels of salinity, TDS, chloride, sulfate, and lithium into the environment	Direct discharge accumulating contaminated wastewater in the soil profile and	Localised environment receiving runoff and roadside vegetation, soil contamination.	Groundwater monitoring, discharge meter, stormwater infrastructure, existing licence conditions. Refer to Table 3: Licence holder	Low level onsite impacts C=Minor The risk event will probably not occur in most circumstances	N	Condition 3 Condition 11 Table 7	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of contamination of the environment with contaminated water for dust suppression activities to be medium. The delegated officer considered the licence holders controls to be insufficient to manage the risk, and determined to regulate the following control:

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				
		groundwater		controls	L=Unlikely Medium Risk			<ul style="list-style-type: none"> Twice yearly monitoring of discharge water from Lynas Find Pit and metering of discharge to record volumes. The delegated officer considered the licence holders controls assist in managing the risk and these were conditioned within the licence.
Category 52								
Operation of stage 2 power station	Spills, leaks and overtopping on containments including hydrocarbons	Direct discharge, overland runoff potentially contaminating soil, groundwater, vegetation or impacting surface water quality	Soil, groundwater and surrounding vegetation.	Spill kits, graded drainage, triple oily water separator, existing licence conditions, double skinned tanks. Refer to Table 3: Licence holder controls	Low level onsite impacts C=Minor The risk event will probably not occur in most circumstances L=Unlikely Medium Risk	Y	Condition 5	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of contamination of the environment from spills, leaks, and overtopping of contaminants to be medium. The delegated officer considered the licence holders controls to be sufficient to manage the risk and conditioned these within the licence.
Category 6								
Dewatering of Lynas Find mine pit	Elevated levels of salinity, TDS, chloride, sulfate, and lithium into the environment	Direct discharge accumulating contaminated wastewater to Pilgangoora Creek	Pilgangoora Creek	Monitoring water quality, flowmeter, inspection of dewatering pipelines, existing licence conditions. Refer to Table 3: Licence holder controls	Low level onsite impacts C=Minor The risk event could occur at some time. L=Possible Medium Risk	N	Condition 11 Table 7 Condition 3	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of contamination of the environment with contaminated water from dewatering to be medium. The delegated officer considered the licence holders controls to be insufficient to manage the risk, and determined to regulate the following control: <ul style="list-style-type: none"> Twice yearly monitoring of discharge water from Lynas Find Pit and metering of discharge. The delegated officer considered the licence holders controls assist in managing the risk and these were conditioned within the licence.
Category 57 and 64								
New putrescible landfill location and tyre storage	Leachate to groundwater from landfill and fire fighting chemicals	Direct discharge through the base of the landfill cell, runoff from fire suppression activities contaminating groundwater and soil	Soil, groundwater and surrounding vegetation.	Existing licence conditions, landfill located minimum depth groundwater and distance from watercourses, GND2 standards.	High level onsite impacts, mid-level local scale impact. C=Major The risk event will probably not occur in most circumstances L=Unlikely Medium Risk	Y	Condition 5	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of contamination of the environment from leachate and chemicals to be medium. The delegated officer considered the licence holders controls to be sufficient to manage the risk and conditioned these within the licence
	Windblown waste, dust and odour	Direct discharge from waste disposal and air and windborne pathway causing soil contamination and ingestion or entrapment of wildlife.	Terrestrial ecosystems.	Existing licence conditions	Low level onsite impacts C=Minor The risk event could occur at some time. L=Possible Medium Risk	Y	Condition 5	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of windblown waste, dust and odour from the landfill to be medium. The delegated officer considered the licence holders controls to be sufficient to manage the risk and conditioned these within the licence
	Fire	Air/windborne dispersal of fire impacting surrounding vegetation	Surrounding vegetation and fauna.	Tyre storage to GND2 stacks limits. Refer to Table 3: Licence holder controls	High level onsite impacts, mid-level local scale impact. C=Major The risk event will probably not occur in most circumstances L=Unlikely Medium Risk	Y	Condition 5	The delegated officer considered the distance to receptors, the licence holders's controls and existing licence conditions and determined the risk of fire from tyre storage and landfill to be medium. The delegated officer considered the licence holders controls to be sufficient to manage the risk and conditioned these within the licence.

Risk Event					Risk rating ¹	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	C = consequence L = likelihood			
Category 73								
Hydrocarbon and chemical storage	Leachate to groundwater, contamination of soil	Spills and leaks of containments.	Soil, groundwater and surrounding vegetation.	Self-bunded tanks, bunding, oily water separators, AS1940-2004, sediment traps, transfer pumps/pipes. Refer to Table 3: Licence holder controls	Low level onsite impacts C=Minor The risk event will probably not occur in most circumstances L=Unlikely Medium Risk	Y	Condition 5	The delegated officer considered the distance to receptors, the licence holder's controls and existing licence conditions and determined the risk of leachate from hydrocarbon and chemical storage to be medium. The delegated officer considered the licence holder's controls to be sufficient to manage the risk and conditioned these within the licence.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments (DWER2020)*.

Note 2: Proposed Licence Holder's controls are depicted by standard text. **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
Local Government Authority Shire of East Pilbara advised of proposal 15 January 2026	The Shire of East Pilbara has not replied to date	The delegated officer notes this.
Department of Mines Petroleum and Exploration (DMPE) advised of proposal 15 January 2026	DMPE replied on the 29 January 2026. See section 2.5.1 for details. Overall, DMPE has no significant findings or considerations to raise in relation to the proposed licence amendment.	The delegated officer notes this.
Department of Planning Lands and Heritage (DPLH) advised of the proposal on 15 January 2026	DPLH has not replied to date	The delegated officer notes this.
Nyamal Aboriginal Corporation advised of the proposal on 15 January 2026	Nyamal Aboriginal Corporation has not replied to date	The delegated officer notes this.
Wallareenya Station advised of proposal 15 January 2026	Wallareenya Station has not replied to date	The delegated officer notes this.
Licence holder was provided with draft amendment on 10 April 2026	Licence holder responded on 28 April 2026, refer to Appendix 1	Refer to Appendix 1

5. Decision

The delegated officer determined to grant a licence amendment to licence L9056/2017/1 to authorise changes associated with expanded operations at the Pilgangoora Lithium–Tantalum Project.

The amendment includes:

- inclusion of infrastructure constructed under works approval W6051/2017/1, including the Stage 2 processing plant and P1000 expansions, LNG unloading and storage facilities, mobile crushing and screening plant 1, and approval for construction and operation of mobile crushing and screening plant 2. This does not include the mid-stream demonstration plant – still under construction.
- amendments to operational capacity across prescribed activities, including increased throughput for Category 5 (ore processing and tailings deposition), increased mine dewatering under Category 6, increased power generation capacity under Category 52, and increased bulk chemical and LNG storage under Category 73.

- addition of Category 57 (tyre storage facility) and amendments to Category 64 (putrescible landfill), including changes to landfill design, location and waste recording requirements.
- increase in authorised dust suppression water volumes from 15,000 to 80,000 cubic metres per month, including the use of decant, seepage and dewatering water
- amendments to monitoring, infrastructure and licence administration, including removal of destroyed monitoring bore TMFMB003, updates to monitoring triggers, figures and tables, and the addition of a mobile, self-contained wash-pad facility.
- amendment of the prescribed premises boundary to include mining tenements M45/1266 (Lynas Find Project area) and M45/78.

The delegated officer added item column to Condition 5 Table 6 for easier verification of items.

In making this determination, the delegated officer considered the outcomes of the risk assessment, compliance with relevant guidance documents, and advice from consulted agencies, including the Department of Mines, Petroleum and Exploration, which raised no significant issues in relation to the proposed amendment.

Based on the risk assessment, the delegated officer considered the key risks associated with the amendment to relate to mine dewatering discharges, increased ore throughput, dust suppression using decant and seepage water, landfill and tyre storage activities, and bulk storage of fuels and chemicals. These risks were assessed as low to medium and capable of being managed through existing and additional licence controls.

The delegated officer determined that construction, operation, monitoring and reporting controls were required to ensure risks remain acceptable. This includes expanded surface water monitoring and reporting requirements, additional regulation of dewatering and dust suppression water quality and volumes, and retention of landfill and tyre storage controls consistent with applicable regulations and guidance.

On this basis, the delegated officer determined that the amended activities do not pose an unacceptable risk to the environment or public health and that a revised licence should be granted subject to appropriate conditions.

6. 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.

6.1 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
Front page	Updates to mining tenements, assessed production design capacity and inclusion of Category 57
Condition 2 Table 3	Update discharge points and Figures
Condition 3 Table 4	Updated limits

Condition 5 Table 6	Additional infrastructure operational requirements for processing plant, mobile crusher, TMF Cell 1, power station, fuel storage, creek discharge, sediment ponds, process water pond, land fill (including tyres), used tyre storage, mobile self-contained wash pad.
Condition 11 Table 7	Inclusion of Lynas Find Pit monitoring and parameter updates
Condition 12 Table 8	Monitoring bore updates
Condition 16 Table 10	Sediment pond updates
Condition 24 Table 12	Update Annual Environmental Reporting
Condition 27 Table 13	Addition of construction works for wash pad facility and crushing and screening plant 2.
Conditions 28 and 29	Updates so multiple Environmental Compliance Reports can be submitted.
Schedule 1 Figure 1	Update site map to include new infrastructure locations
Schedule 1 Figure 3	Update premises boundary map.
Schedule 1 Figure 5	Updated seepage map
Schedule 1 Figure 7	Updated dust suppression map
Schedule 1 Table 14	Update of premises boundary coordinates.

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. DWER 2025, *Pilgangoora Operations Pty Ltd, works approval W605182017/1, issued 27 May 2025*, Perth Western Australia
5. DWER 2025, *Pilgangoora Operations Pty Ltd Licence L9056/2017/1 issued 27 May 2025*, Perth Western Australia
6. MMWC. 2016. *Pilgangoora Project Area Flora, Vegetation and Fauna Assessment V2 – July 2016*. Unpublished report prepared for Pilbara Minerals Limited, July 2016
7. Pilbara Minerals (2024) *Tailings Management Facility Seepage TARP November 2024*, Pilbara Minerals Perth.
8. Pilbara Minerals 2024, *Surface Water Management*, Pilbara Minerals, Perth
9. Pilbara 2020b, Pilbara Minerals, 2020, *Surface Water Management*, West Perth, Western Australia.
10. Pilgangoora Operations Pty Ltd, 2025, *Application for a licence L9056/2017/1 amendment and supporting documents*, Perth Western Australia.

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

Condition	Summary of Licence holder's comment	Department's response
Condition 2 Table 3 – Authorised discharges – TMF Decant water	Licence holder requested to move 'decant water from Lynas Find pit' to the row below to 'Mine dewater discharge'. Including adding reference to 'Lynas Find Mine dewater to be discharges as dust suppression' including update reference figures.	The department contacted the licence holder to instead update the emission to include 'dewater from Lynas Find pit' to the TMF Decant water and seepage water. The emission point Figure 8 title was updated to reflect this. These changes clarified the original intent to allow Lynas Find Pit dewater to be used for dust suppression activities.
Condition 2 Table 3 – Authorised discharges – Inert and putrescible wastes	Licence holder indicated that the landfill areas are not referenced in Figure 3 and this should be removed.	The delegated officer agrees but will include Figure 1 that has reference to the landfill.
Condition 5 Table 6 – item 3	Licence holder indicated that the reference to Figure 5 is incorrect and should be updated to Figure 6	The delegated officer agrees.
Condition 5 Table 6 – item 14	Licence holder indicated that the reference to Figure 3 is incorrect and should be updated to Figure 4.	The delegated officer agrees.
Condition 5 Table 6 – item 14	Licence holder indicated that the reference to Figure 4 is incorrect and should be updated to Figure 5.	The delegated officer agrees.
Condition 5 Table 6 – item 14	The licence holder has indicated that the term 'man' has been used when 'animal' is appropriate, note 'animal proof fence'.	The delegated officer agrees.
Condition 5 Table 6 Item 16	The licence holder verifies that the washdown bay is self-contained on blue metal.	The delegated officer notes this has updated the condition.