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	L9440/2024/1
Licence Holder	Australian Garnet Pty Ltd
ACN	646 741 157
File Number	APP-0029371
Premises	Lucky Bay Garnet Project George Grey Drive YALLABATHARRA Legal description Tenements M70/1280, G70/253, L70/215, L70/134 and L70/178 within Lot 1 on Diagram 91564, Lot 300 on Plan 60565, and Lot 1431 on Plan 251608. As defined by the premises maps attached to the issued licence
Date of Report	15 January 2026 (**FINAL**)
Decision	Revised licence granted

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1. Decision summary

Licence L9440/2024/1 is held by Australian Garnet Pty Ltd (Licence Holder) for the Lucky Bay Garnet Project (the Premises), located at George Grey Drive YALLABATHARRA WA.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to emissions and discharges during operation of the Premises. As a result of this assessment, Revised Licence L9440/2024/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

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

2.2 Application summary

On 5 June 2025, the Licence Holder submitted an application to the department to amend Licence L9440/2024/1 (the Licence) under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The department accepted the application for assessment on 21 July 2025 following payment of the application fee. The department then placed the assessment process on hold on 13 August 2025 as an appeal had been lodged under section 102(3)(b) of the EP Act against conditions of the Licence relating to noise and dust.

After considering all information available, the Minister determined to allow the appeal in part and decided conditions of the Licence should be strengthened and instructed the department to amend the Licence accordingly (Appeal 001 of 2025). The department actioned the Minister's decision and finalised an amendment to the Licence on 31 October 2025. Assessment of the Licence Holder's amendment application recommenced after this period.

The Premises currently consists of an above groundwater progressive open pit mine with a mobile Mining Unit Plant (MUP) that feeds to a Central Processing Area (CPA) containing a Wet Concentrator Plant (WCP), dryer and Dry Separation Plant (DSP), and Screening and Bagging Plant (SBP) to produce a heavy mineral concentrate, including garnet and ilmenite final products. Wastes produced from processing mined materials consists of clean sand tailings which are returned to the mined pit, and clay by-products (clay slimes) which are pumped as a slurry to solar drying ponds.

Clay by-products are managed through wet staking where fine sediment is allowed to settle to the base of the solar drying ponds and supernatant water is decanted from the top surface for recycling back into the process circuit.

The Licence Holder seeks to amend the Licence to allow the following changes:

- **Construction and operation of in-pit settlement ponds.**

  Water recovered from tailings cyclone overflow contains high levels of suspended materials. The Licence Holder proposes to construct and operate in-pit settlement ponds to receive tailings cyclone overflow, and decant water collected from solar drying ponds, to allow settlement of suspended material before recovery back to the processing plant for reuse (see Figure 1 below).

  Multiple in-pit settlement ponds will progressively be constructed within areas of the mined pit over the life of the mine to allow continual mining operations to occur while simultaneous operating settlement ponds. The Licence Holder proposes to operate at least two settlement ponds within the mined pit area at any one time to allow for one

active pond while other(s) are under construction or being decommissioned. To extend the life of active in-pit settlement pond, excess settled material will be excavated to restore capacity and then deposited at the sand tails disposal area within the mine pit as approved by the Licence.

Settlement pond construction and operational details are provided below:

- Conceptually 50 m x 50 m x 5 m in size, to enable adequate settlement of fine material from the decant water;
- A minimum freeboard of 300 mm will be maintained at all times;
- Windrows constructed from in-pit fill of medium and small oversize from the Mobile Mining Unit (MUP) and tailings;
- A minimum separation distance of 1.0 m will be maintained between base of pit and the highest seasonal groundwater level;
- Base and sides of each pit will be lined with 75mm thick clay fines. Settled fines from the recovered water will also assist in minimising seepage due to the self-sealing nature of the settled material.
- Decant box located inside each pond for recovery of water for reuse at the processing plant; and
- Pipelines fitted to transfer decant water to the plant.

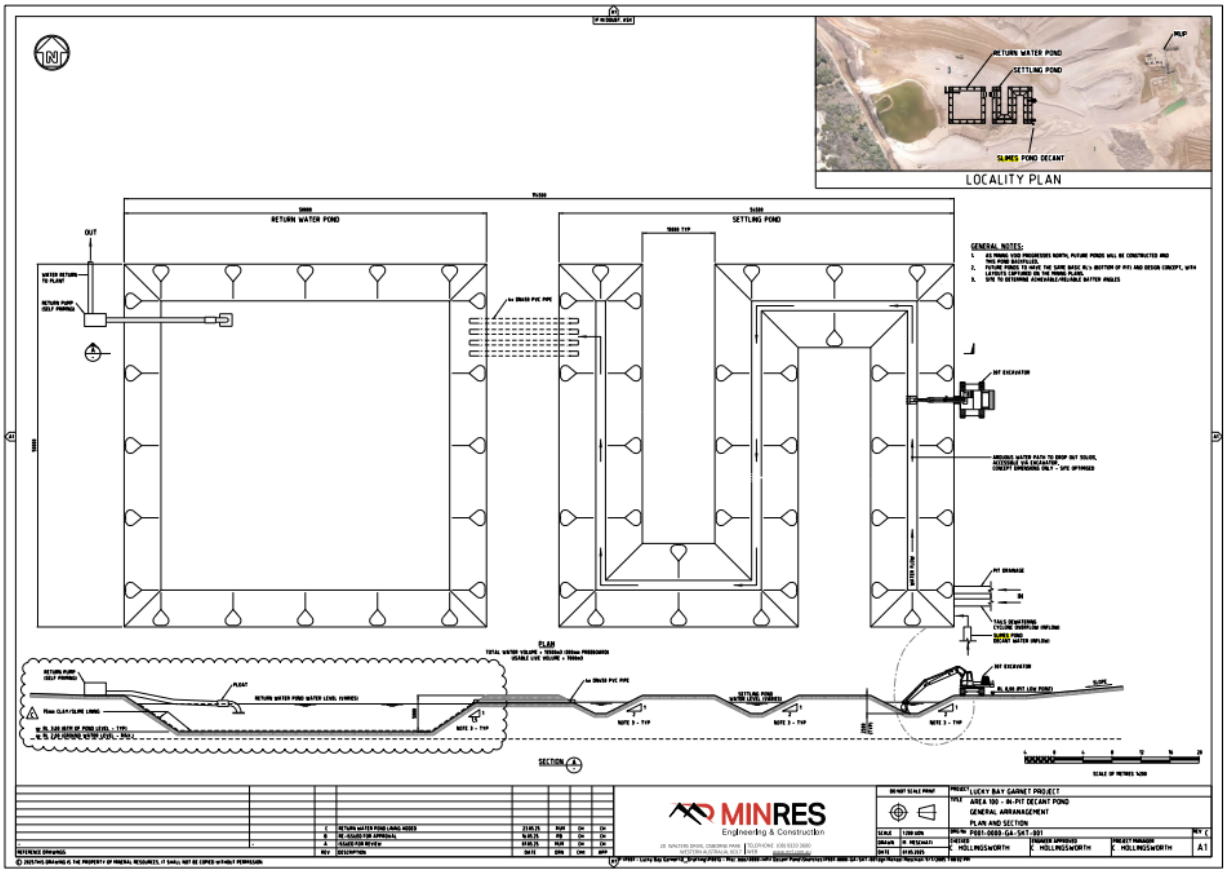

Figure 1: In-pit settlement pond design

- **Use of clay by-products as a dust suppressant.**

  The Licence Holder proposes to reinstate the use of clay material removed from Solar Drying Ponds (SDP) for use on non-trafficked areas such as sand tailing stockpiles and mine pit areas to manage fugitive dust emissions.

  Sand is mined at the Premises before being pumped as a slurry to a Wet Concentration

Plant (WCP) where gravity separation is used to produce garnet and heavy mineral concentrates. One of the wastes produced as part of this process is clay by-products (clay slimes) which consist of sand particulates that have been washed from the mineral product. The waste wash water is then pumped to a deep-cone thickener for settling and consolidation. Flocculants are added to the wash water prior to entering the thickener to improve the settling process. The thickened slurry is then pumped to the SDP where fine sediments are allowed to settle to the base of the ponds and supernatant water is decanted from the top for reuse back in the processing circuit. As part of the ongoing maintenance of the ponds to restore capacity, excess settled material (clay by-product) is excavated and then deposited directly into the mined void. The Licence Holder proposes to use this material for dust suppression.

Clay by-product was previously used for dust suppression at the Premises and was regulated through conditions of works approval W6214/2019/1 (W6214). However, this dust control method was not carried over at the licence application stage as there were alternative methods available to the Licence Holder and the department determined at the time that drying clay by-product may contribute to fugitive dust emissions at the Premises.

The department conducted an inspection of the Premises in February 2025 following the issuing of the Licence in December 2024. The officers noted during the inspection that clay by-product previously authorised under W6214 for use as a dust suppressant did not appear to be contributing to overall fugitive dust emissions at the Premises and would likely assist in managing dust in non-trafficable areas. The officers noted that once clay by-product dried out it produced a crust with minimal to no fugitive dust emissions observed.

The Licence Holder has stated they continue to observe minimal to no fugitive dust emissions from areas at the Premises where clay by-products were previously used on non-trafficked/inactive surfaces to manage fugitive dust emissions. A recent site visit by departmental officers on 2 December 2025 also noted there was negligible to no dust emissions from areas where clay by-products had been previously used for dust suppression.

As detailed above, the Licence was amended on 31 October 2025 to strengthen conditions which included the requirement for the Licence Holder to submit an interim dust assessment report and management plan to the department by 19 December 2025. A requirement of the dust assessment report is to investigate crystalline silica in ambient air to monitor potential impacts to offsite human receptors and develop mitigation measures. The Licence was also amended requiring the Licence Holder install an additional ambient air monitoring station between mining areas and Receptor 3 (see Figure 2 below).

- **Conditional approval for nighttime mining operations**

  The Licence Holder has requested the department consider applying conditions in the Licence which would authorise nighttime mining operations to occur prior to the Licence Holder completing an adequate noise assessment required under condition 22, and the department making a final determination following a review of the report submitted under condition 23.

  Conditions relating to assessment of noise emissions from nighttime mining operations were applied to the licence because the department determined, following an assessment of supporting documentation, nighttime mining operation noise levels would not meet the assigned levels under the *Environmental Protection (Noise) Regulations 1997*. On 13 February 2025, the Licence Holder provided an Environmental Noise Assessment Report (Ref: 34029-1-24401) following four weeks noise monitoring at three separate locations to demonstrate compliance with conditions of the Licence. After

reviewing the report, the department determined that mining operations should still be kept to daytime hours as prescribed in the Licence; Monday to Saturday 7am to 7pm, and 9am to 7pm on a Sunday or public holiday. Monitoring results had shown nighttime mining operations had not met assigned noise levels under the *Environmental Protection (Noise) Regulations 1997* (EP Noise Regs).

The department also identified the report did not involve recalibration of the noise model for the operation, including predications for worst-case scenarios. As a result, the department determined the licence holder is required to resubmit an updated Environmental Noise Assessment Report to the department.

Additionally, a review of the departments complaint management system indicates several noise related complaints have been received from nearby sensitive premises (see table 2 for locations) which mainly relate to nighttime mining operations.

Therefore, after taking into consideration the above points, the department has determined a conditional approval for nighttime mining operations as requested by the Licence Holder in this amendment application cannot be supported. The Licence Holder can seek this authorisation via a subsequent licence amendment once compliance against the EP Noise Regs has been demonstrated.

- Other administrative changes
    - Any reference to 'slimes' or 'clay waste' is amended to 'clay by-products'. The department notes, clay by-products (i.e. clay slimes) are still considered as 'tailings' and therefore subject to fees prescribed under the *Environmental Protection Regulations 1987.*
    - Tailings is the material left over after separating the valuable fraction from ore, regardless of the separation process employed. Tailings from physical comminution and separation processes such as waste fines, sand fractions or clay slimes are considered as Part 2 wastes.
    - Minor extension to the timeframe to install dust monitoring location M4 as required by condition 32 (amended to 31 January 2026, from 31 December 2025)

2.3 Part IV of the EP Act

Australian Garnet Pty Ltd referred the Lucky Bay Garnet Mine proposal to the Environmental Protection Authority (EPA). The EPA determined the proposal would not be assessed under Part IV of the EP Act – No advice given (Appealable), 11 July 2022 (Referral decision No: 18069).

3. Risk assessment

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

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

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 1 below. Table 1 also

details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	Use of earthmoving equipment during pond construction	Air/windborne pathway	• Use of water trucks on-site to minimise dust emissions and ensure adequate water supply. • Daily forecast and work planning are checked to considered wind speed and wind direction.
Noise	Noise from use of plant and equipment during pond construction, and when applying clay by-products to land and stockpiles.	Air/windborne pathway	• Noise reduction on plant and equipment (i.e. mufflers, baffles). • Routine preventative maintenance of plant and equipment. • Use of broadband reversing alarms. • Undertaken during daylight hours.
Tailings and solar drying pond decant water	Operation of in-pit settlement pond/s	Seepage through soil	• Maintain a minimum separation distance of 1.0 m between base of pit and the highest seasonal groundwater level. • 75 mm clay/slime pond lining. • As per solar drying ponds, seepage will be minimal as these structures will effectively self-seal as the fines settle and consolidate.
		Overtopping of pond embankments	• Always maintain a minimum freeboard of 300 mm. • Ponds located within base of mined pit.
	Rupture of pipelines	Direct discharge to land and overland flow to surface waters	• Secondary containment with sufficient capacity to contain any spills occurring during routine inspections. • Daily integrity inspections.
Clay by-product, and water entrained in clay by-product	Clay by-product used for dust suppression	Direct discharge to land and overland flow	Limited to non-trafficked areas (i.e. sand tailings stockpiles and mine pit areas).
		Seepage through soil	No controls proposed.

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 2 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 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Residential Property Shown as Receptor 1 in Figure 2.	Approximately 1 km east from the prescribed premises boundary.
Residential Property Shown as Receptor 3 in Figure 2.	Approximately 2.5 km north-east from the prescribed premises boundary.
Halfway Bay Shacks Shown as Receptor 2 in Figure 2.	Approximately 2.5 km south-west from the prescribed premises boundary.
Lucky Bay recreational campground area Identified in the Yamatji Indigenous Land Use Agreement (ILUA) as a key economic site. Shown as Receptor 4 in Figure 2.	Camp sites approximately 800 m west from the boundary of the Premises
Cultural receptors	**Distance from activity / prescribed premises**
Aboriginal heritage site/s	Site ID 4647 – approximately 1.0 km m north-west of the prescribed premises boundary.
Environmental receptors	**Distance from prescribed activity**
Subtropical and Temperate Coastal Saltmarsh Listed as Vulnerable under the EPBC Act	Approximately 0.8 km south from prescribed premises boundary.
Utcha Well Nature Reserve	Approximately 0.8 km south of the prescribed premises boundary
Hutt Lagoon System Nationally Important Wetland	Approximately 0.8 km south of the prescribed premises boundary (northern most portion of the lagoon system).
Mappa Lake – seasonal natural lake	Approximately 0.95 km west of the prescribed premises boundary.
Groundwater Groundwater quality ranges between brackish to saline (1500 to 7,000 mg/L) with salinity generally increasing laterally towards the coastline.	Groundwater levels across the site range from 10 to 20 metres below ground level (mbgl). Groundwater flow is in a westerly to south-westerly direction, with discharge occurring along the coastline.
Halfway Bay camp well	Approximately 0.8 km west from the premises boundary. Water has been identified as non-potable.

Other groundwater users surrounding the Premises. Most bores are for stock watering purposes (A MRD owned bore is used for road construction).	The closest stockwatering bore is the Bore located 1.3 km away at Receptor 1. Note: Main Roads WA maintain a bore in the Yanganooka Reserve for road construction and maintenance purposes however impacts are not expected due to distance.
Indian Ocean	Approximately 1.3 km west of the premises boundary.
Threatened and Priority Flora 1. *Caladenia bryceana* subsp. *cracens* (Endangered) 2. *Comesperma rhadinocarpum* P3 3. *Melaleuca huttensis* P3 4. *Frankenia confusa* P4 5. *Stenanthemum divaricatum* P3 6. *Anthocercis intricate* P3 7. *Bossiaea calcicole* P3	1. Approximately 1 km east outside the prescribed premises boundary. 2. Approximately 0.6 km southwest outside the prescribed premises boundary. 3. Within the prescribed premises boundary in areas not being cleared. 4. Within the prescribed premises boundary. 5. Approximately 0.6 km east outside the prescribed premises boundary. 6. Within and outside the prescribed premises boundary. 7. Within and outside the prescribed premises boundary.

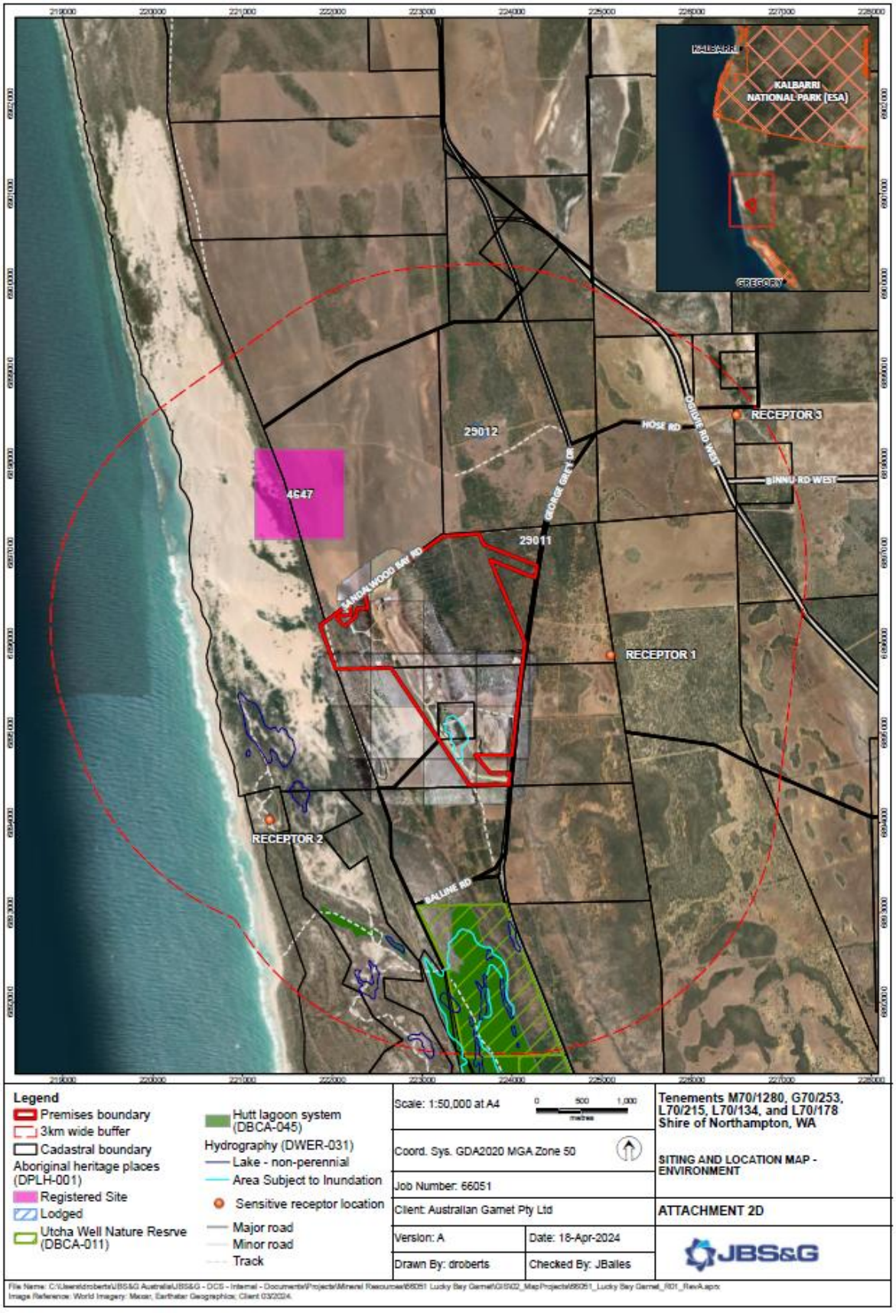

Figure 2: Distance to sensitive receptors

3.2 Risk ratings

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

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

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

The Revised Licence L9440/2024/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. Mineral sands mining or processing.

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

Table 3. 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 / DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Construction								
Construction of in-pit settlement ponds within mine void (Menari pit)	Dust	**Pathway:** Air/windborne pathway **Impact:** Decline in vegetation health due to smothering	Vegetation including threatened and priority flora	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	**New condition 2** – In-pit settlement pond design and construction requirements, including location. **New conditions 3 & 4** – Compliance auditing and reporting requirements. **Existing condition 37** – Condition updated requiring a summary is provided for constructed and decommissioned in-pit settlement ponds Existing conditions 11, 17, 19, 20, 29, 30, 31, 32, 33, 34, 35, 36 and 37	Licence Holder proposed design and construction requirements (including location) added as a new condition in the Licence. Existing conditions relating to dust monitoring, exceedance management actions and reporting are already applied in the Licence. Annual reporting requirement updated to include a requirement to provide details on newly constructed in-pit settlement ponds.
		Pathway: Air/windborne pathway **Impact:** Reduced amenity and health impacts	Closet rural residential property within 1.7 km Users of George Grey Drive within 500 m Halfway Bay shack residents within 2.5 km Lucky Bay recreational campground area 800 m away	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y		
	Noise	**Pathway:** Air/windborne pathway **Impact:** Reduced human health and amenity	Closet rural residential property 1.7 km away Users of George Grey Drive 500 m away Halfway Bay	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	**New condition 2** – In-pit settlement pond design and construction requirements including location. **New conditions 3 & 4** – Compliance auditing and reporting requirements.	Licence Holder proposed location of in-pit settlement ponds added as new condition in the licence. Existing conditions relating to noise monitoring, management and

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**				
			shack residents and recreational users 2.5 km away				Existing conditions 5, 12, 18, 19, 21, 33, 34, 35, 36 and 37	reporting are already applied in the Licence. Annual reporting requirement updated to include a requirement to provide details on newly constructed in-pit settlement ponds.
	Hydrocarbon spills and leaks from refueling and equipment failure Contaminated stormwater	**Pathway:** Direct discharge to land and overland flow **Impact:** Soil and groundwater contamination, and impacts to vegetation health	Groundwater suitable for stockwatering Vegetation including threatened and priority flora	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Existing conditions 8, 33, 34, 35, 36 and 37	No additional regulatory controls
Operation								
Discharge of sediment laden tailings cyclone overflow and solar drying pond decant water to in-pit settlement ponds within mine void (Menari pit)	Tailings and solar drying pond decant water	**Pathway:** Seepage through pond base and embankments **Impact:** Contamination of groundwater or mounding causing detrimental impacts to vegetation health	Groundwater suitable for stockwatering Vegetation including threatened and priority flora	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	**Existing condition 6** - Amended to include operational requirements for in-pit settlement ponds **Existing condition 7** - Amended to include in-pit settlement ponds as a discharge location for decant water from tailings cyclone stackers. **Existing condition 16** – Amended to include process monitoring requirements for discharges to the in-pit settlement ponds. Existing conditions 13, 14, 15 and 19. Existing conditions 22, 23	Disposal of tailings material into Menari Mine Pit is already an approved discharge through conditions of the licence. Licence Holder proposed operational requirements included as an amendment to existing conditions of the Licence. Discharge of tailings and solar drying pond decant water to in-pit settlement ponds included as an authorised emission to

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**				
							and 24 include ambient groundwater monitoring, establishes trigger values and limits (for standing water levels) and management actions (groundwater recovery) when a trigger values is exceeded.	land. Existing conditions relating to groundwater monitoring, trigger value management actions, and reporting are already applied in the Licence.
		Pathway: Direct discharge to land due to overtopping of pond embankments **Impact:** Detrimental impacts to surrounding vegetation and contamination of groundwater	Vegetation including threatened and priority flora Groundwater suitable for stockwatering	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	**Existing condition 6** - Amended to include operational requirements for in-pit settlement ponds **Existing condition 7** - Amended to include in-pit settlement ponds as a discharge location to land for decant water from tailings cyclone stackers. Existing conditions 22, 23, 24, 33, 34, 35, 36, and 37	Licence Holder proposed operational requirements included as an amendment to existing conditions of the Licence.
		Pathway: Direct discharge to land due to pipeline failure **Impact:** Surface water and groundwater contamination and detrimental impacts to vegetation health	Vegetation including threatened and priority flora Groundwater suitable for stockwatering Surace water	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Existing conditions 6, 7, 33, 34, 35, 36, and 37	No additional regulatory controls

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**				
Use of clay by-product as a dust suppressant on non-trafficked areas	Dust from drying clay by-product	**Pathway:** Air/windborne pathway **Impact:** Decline in vegetation health due to smothering	Vegetation including threatened and priority flora	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	**<u>Existing condition 7-</u>** Condition amended to include discharge of clay by-products onto non-trafficked surfaces. **<u>Existing condition 11 –</u>** Condition amended to include operational requirements for use of clay by-product as a dust suppressant. Existing conditions 16, 17, 20, 29, 30, 31, 32, 33, 34, 35, 36 and 37	Licence Holder proposed requirements for use of clay by-products as a dust suppressant have been added to the licence. Licence Holder proposed discharge locations applied to the licence.
		Pathway: Air/windborne pathway **Impact:** Reduced amenity and health impacts	Closet rural residential property within 1.7 km Users of George Grey Drive within 500 m Halfway Bay shack residents within 2.5 km Lucky Bay recreational campground area within 800 m	Refer to Section 3.1	C = Major L = Unlikely **Medium Risk**	Y	**<u>Existing condition 7-</u>** Condition amended to include discharge of clay by-products onto non-trafficked surfaces. **<u>Existing condition 11 –</u>** Condition amended to include operational requirements for use of clay by-product as a dust suppressant. Existing conditions 16, 17, 20, 29, 30, 31, 32, 33, 34, 35, 36 and 37	Licence Holder proposed requirements for use of clay by-products as a dust suppressant have been added to the licence. Licence Holder proposed discharge locations applied to the licence.

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**				
	Seepage of water entrained in clay by-product	Infiltration through soil potentially causing groundwater and surface water contamination and impacts to vegetation health	Groundwater suitable for stockwatering Surface water Vegetation including threatened and priority flora	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	**Existing condition 7-** Condition amended to include operational requirements and location for use of clay by-products onto non-trafficked surfaces. Conditions 22 and 23 relate to ambient groundwater monitoring to identify changes to standing water level, water quality changes, and potential groundwater contamination. Condition 24 relates to management actions when a groundwater trigger value is exceeded. Existing conditions 13, 14, 15, 33, 34, 35, 36 and 37	Licence Holder proposed operational requirements for use of clay by-products as a dust suppressant have been added to the licence. Licence Holder proposed discharge locations applied to the licence.
	Sediment laden stormwater	Overland runoff causing surface water contamination and impacts to vegetation health	Vegetation including threatened and priority flora Surace water	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	**Existing condition 7-** Condition amended to include operational requirements and location for use of clay by-products onto non-trafficked surfaces. Existing conditions 9, 33, 34, 35, 36 and 37	Licence Holder proposed operational requirements for use of clay by-products as a dust suppressant have been added to the licence. Licence Holder proposed discharge locations applied to the licence

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 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Shire of Northampton advised of proposal 31 July 2025	No comments received.	N/A
Department of Mines, Petroleum and Exploration (DMPE) advised of proposal 31 July 2025	DMPE have the following comments for your consideration: 1. Mining Proposal DMPE are currently assessing a Mining Proposal for the Lucky Bay Garnet Project under Registration (Reg) ID 129163 received on 4 October 2024. The current version of Reg ID 129163 proposes an in-pit settlement pond (dam) and an in-pit slimes Tailings Storage Facility on M70/1280. There are currently no references of a clay-by product as a dust suppressant. 2. Regarding dust management: Dust is a known management issue for the Project and dust control is required. However, the operator must ensure the clay by-product is chemically inert and has sufficient characterisation to ensure no pollution risk is posed as a dust suppressant. The compositional analysis is described in the Supporting Document (L9440 Supporting Document_R), however, DMPE does not have a copy of the technical report. 3. Regarding in-pit settlement ponds: The DWER amendment application proposes to maintain a nominal >1 metre (m) distance of the base of the pit above the highest seasonal groundwater. It is noted the current MP proposes a nominal distance of 2 m above the highest seasonal groundwater level. The assessment of Reg ID 129163 has requested evidence to demonstrate how the pit will in future be maintained above groundwater at all times, which has not been demonstrated acceptably.	1. Noted 2. The composition of the by-product indicate the material is considered low risk if used as a dust suppressant and is not expected to pose as potential pollution risk if used in accordance with the conditions of the Licence. Additionally, DWER has observed on two separate occasions (see section 2.2 above) the application of clay by-product on non-trafficked areas has resulted in significant reduction in fugitive dust emissions from exposed surfaces. The officers noted on both occasions once the clay by-product formed a crust, no dust lift-off was noted. 3. DWER has imposed a new condition requiring the Licence Holder construct the pit/s with a minimum separation distance of 2.0 m between base of ponds and the highest seasonal groundwater. DWER has also included the requirement for installation of a 75 mm thick clay liner as proposed by the Licence Holder. Licence conditions 23 and 24 regarding ambient groundwater monitoring and management actions are already in place which set a limit of 1.0 mbgl for standing water levels, and a trigger value of 2.0 mbgl when groundwater recovery must be undertaken within two months to limit any potential mounding effects.

	DMPE officers observed the Menari Pit containing standing water in site inspections dated 12 November 2024 and 22 July 2025. The water has since been confirmed to be groundwater. As there is no approval under the Mining Act 1978 (Mining Act) to intersect groundwater for the Project, this matter is under compliance investigation for breach of tenement conditions under the Mining Act, in addition to other compliance investigations underway for the Lucky Bay Garnet Project. Additionally, the site is currently using solar drying ponds ("off path") that were constructed without approval under the Mining Act on temporary stockpiles; the installation of in-pit ("on path") ponds could allow these to be decommissioned, based on site discussions. However, this is not clearly reflected in MP Reg ID 129163 (whether the off-path ponds will still be used) and requires clarification. Given groundwater has been intercepted, impacts to groundwater are considered a key risk for the Lucky Bay Garnet Project. DMPE supports the use on in-pit ponds to minimise additional disturbance, but it is important the operator completes an appropriate water balance and can ensure that the pit and ponds will not intercept and impact groundwater, as proposed. DMPE are still assessing the risk implications and adequacy of measures proposed (including the groundwater buffer) under MP Reg ID 129163.	
Department of Biodiversity, Conservation and Attractions (DBCA) advised of proposal 31 July 2025	Comments received 22/08/2025. 1. The licence is in proximity to Utcha Well Nature Reserve which is managed by DBCA under the CALM Act for the conservation of flora and fauna. DBCA has observed continuing declines in vegetation health and condition in the general area, potentially linked to dust deposition (diffuse source) and groundwater abstraction from mining activities, particularly noticeable during dry summer months and recently exacerbated by the 2023/24 drought. 2. Utcha Well Nature Reserve provides protection for portions of the Hutt Lagoon System, a recognised important wetland in Western Australia that provides significant habitat for migratory birds protected under the BC Act. Light from the proposed nighttime mining operations in proximity to this wetland may impact conservation significant fauna, particularly migratory waterbirds using Hutt Lagoon. DBCA recommends that best	1. DWER recently amended the licence following an appeal lodged against conditions of the Licence (Appeal 001 of 2025). The Appeal Convenors report to the Minister considered dust conditions in the Licence were generally adequate to control risks from dust emissions but recommended they are strengthened for site specific circumstances and compliance purposes. The Licence was amended on 31/10/2025 to include additional conditions requiring the Licence Holder provide an interim dust assessment and management plan, revise the dust assessment and management plan and install an additional dust monitoring station. The premises also has a groundwater licence GWL 170860(6) and Groundwater Operating Strategy for the abstraction of water for authorised activities specified in the groundwater licence. It should be noted vegetation monitoring on groundwater dependent vegetation (vegetation health and condition assessments) is being undertaken as per the

	practice lighting design is implemented in alignment with the National Light Pollution Guidelines (DCCEEW 2023) to minimise impacts on conservation significant values. 3. Noting the capacity for the Department of Water and Environmental Regulation (DWER) to assess and apply appropriate regulatory measures to prescribed premises under Part V of the EP Act and ensure all appropriate EP Act approvals are obtained, DBCA recommends that a review of the proponent's dust, groundwater and nighttime light management are undertaken to ensure any risk or impact from mining activities on environmentally sensitive receptors are avoided.	requirements under the Groundwater Operating Strategy under the RIWI Act. No vegetation monitoring has been considered in this licence as it is already regulated under separate approvals. Groundwater abstraction is regulated under the RIWI Act 2. Nighttime operations are not being approved as part of this amendment. Refer to Section 2.2 of this report. The Licence Holder will need to consider and address the comments from DBCA regarding light emissions in a future licence amendment application. 3. Noted and considered in the assessment (as outlined in this report). Regulatory controls relating to managing noise, dust and groundwater impacts remain as conditions in the licence.
Receptor 1 advised of proposal 31 July 2025	Comments received 22/08/2025. A number of comments were given that sit outside the scope of the amendment and therefore have not been considered further for the purposes of the assessment. A summary is provided below on comments made that directly relate to the licence amendment application. • Objection to the construction and use of input settlement ponds, as this will cause the contamination of ground water in the area. • The use of clay by product for dust suppression is unacceptable. Dust emissions are described as hazardous, with potential health risks associated with silica dust exposure. • Residents report continuous noise from nighttime mining operations which disrupts their quality of life. • The text highlights the potential negative effects of mining operations on local biodiversity and ecological communities. • The presence of threatened species and ecological communities near the operational boundary. • The need for a comprehensive assessment of the mine's impacts on local water sources and ecosystems.	Some of the attachments provided in the submission from Receptor 1 have either been previously provided to DWER, as part of the original licence application, or out of scope in relation to the amendment. Only the following matters provided in the body of the submission need to be addressed by the department as they directly relate to the licence amendment application under assessment. These include: 1) Construction of in-pit settlement ponds Impacts to groundwater, including nearby groundwater users, and surface water from operating in-pit settlement ponds at the Premises was considered as part of DWER's risk assessment process. An outcome from this process is DWER has determined to include regulatory conditions in the licence for construction of in-pit settlement ponds to minimise risks to the environment. These conditions include installation of a 75 mm clay liner and ponds requirements to ensure that they are built with a minimum separation distance of 2.0 m between base of ponds and the highest seasonal groundwater level. Additionally, existing ambient groundwater monitoring conditions in the Licence set a trigger level of 2.0 mgbl for standing water level and a management action condition when an exceedance of a trigger level occurs. 2) Use of clay slimes (by-product) as a dust suppressant

	• The potable bore water is located 881.94 meters from the operational boundary. The official claim states the source is over 3 km away.	The use of clay slimes on exposed areas as a dust suppressant was approved and regulated under time limited operation conditions of works approval W6214/2019/1 (condition 12). The Licence Holder now proposes again to include use of clay slimes as a dust suppressant at the Premises by including conditions in the Licence to regulate the activity. Data collected from existing air monitoring stations and provided to DWER indicates respirable crystalline silica levels in ambient air is considered low. Air monitoring station M2, which is located between the active mining areas and Receptor 1, indicated a level of 0.213 µg/m^3 for quartz/cristobalite. DWER notes, air monitoring station M3, which is located offsite and considered a background monitoring station, had a reading of 1.12 µg/m^3, which is over 5 times higher. These levels are still well below the Licence Trigger Value Level of 10 µg/m^3. 3) Night-time mining operations The proposed conditional approval to carry-out night-time operations has not been authorised as part of this amendment. Night-time mining operations are currently only authorised under the Licence for the purposes of investigating if noise from night-time activities can comply with the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997*. This is an existing requirement in the licence which has been retained to allow the Licence Holder flexibility to demonstrate compliance and potentially add this authorisation into the licence at a later date (a separate licence amendment application will be required, and stakeholder consultation will be carried-out prior to any subsequent authorisation under the licence).
Receptor 2 advised of proposal 31 July 2025	Comments received 25/08/2025. A submission from Bailiwick Legal who are acting on behalf of the Receptor 2 was received on 21/08/2025. A number of comments were given that sit outside the scope of the amendment application and therefore have not been considered further for the purposes of the assessment. A	Appeals Convenor and Ministerial Determination (items 4 to 8) • Minister determined to allow the appeal in part and decided conditions of the Licence should be strengthened and instructed the department to amend the Licence accordingly (Appeal 001 of 2025).

	summary is provided below on comments that directly relate to the licence amendment application. Pond Request 1) The Applicant acknowledges that operation of an in-pit settlement pond will involve seepage.1 Seepage, to any extent, has the potential to contaminate groundwater and, in turn, affect groundwater-dependent vegetation. Our clients consider that the Amendment fails to adequately address this risk. 2) In addition, our clients' existing concerns regarding noise and dust emissions are compounded by the Pond Request, noting that construction activities are likely to further increase such emissions. Clay Request 3) The Applicant asserts that the Clay Request is intended to minimise dust emissions at the Project Site. However, the Applicant also acknowledges that its previous request to use clay by-product for dust suppression was rejected by DWER due to the uncertainty surrounding potential dust emissions arising from its use. 4) Our clients consider that the Amendment provides no new or substantive evidence to overcome these concerns. Given the Applicants demonstrated history of non-compliance history, if the Clay Request was granted, our client has very little confidence that the associated risks will be appropriately managed. 5) On the contrary, our clients maintain that granting the Clay Request carries a further material risk that clay by-product will become airborne, with the potential to contaminate surrounding soils (including agricultural soils) and surface water. This risk is not confined to the application phase, but would persist thereafter. Nighttime Operations Request 6) The Applicant acknowledges DWER's position that 'further work is required to address the requirements of condition 22 and assess nighttime noise emissions from mining operations against the requirements of the Noise Regulations'.	• The department actioned the Minister's decision and finalised an amendment to the Licence on 31 October 2025. Pond Request (items 1 to 2) • Licence Holder proposed controls to mitigate seepage impacts to groundwater included installing a 75 mm clay liner to base and internal walls of ponds, and allow a minimum separation distance of 1.0 m between base of ponds and the highest seasonal groundwater level. • DWER determined, following a risk assessment, to include as a construction requirement the installation of a 75 mm clay liner to ponds to mitigate seepage. DWER also determined a separation distance of 1.0 m between base of ponds and the highest seasonal groundwater level was not sufficient enough to manage seepage risks to the environment. A new Licence condition was imposed (condition 2) requiring the ponds are constructed with a minimum separation of 2.0 m is maintained between base of ponds and the highest seasonal groundwater level. • DWER notes, existing ambient groundwater monitoring conditions in the Licence set a trigger level of 2.0 mgbl for standing water level and a management action condition when an exceedance of a trigger level occurs. • The Licence Holder is required to comply with noise and dust related conditions under the Licence and also adhere to assigned noise levels in the *Environmental Protection (Noise) Regulations 1997*. Clay Request (items 3-5) • The use of clay slimes on exposed areas as a dust suppressant was approved and regulated under time limited operation conditions of works approval W6214/2019/1 (condition 12). The Licence Holder now proposes again to include use of clay slimes as a dust suppressant at the Premises by including conditions in the Licence to regulate the activity.

	7) In these circumstances, our clients submit that the Nighttime Operations Request is premature. It is inappropriate to extend operational hours beyond the current timeframes of 7am to 7pm Monday to Saturday and 9am to 7pm on Sundays, whether conditionally or otherwise, until the Applicant can first demonstrate compliance with the current licence conditions. 8) In these circumstances, our clients submit that the Nighttime Operations Request is premature. It is inappropriate to extend operational hours beyond the current timeframes of 7am to 7pm Monday to Saturday and 9am to 7pm on Sundays, whether conditionally or otherwise, until the Applicant can first demonstrate compliance with the current licence conditions. 9) Our clients reject the assertion of the Applicant that granting the Nighttime Operation Request 'would not change' the risk to the environment. 10) Permitting nighttime operations (conditional or otherwise) would inevitably increase the frequency of activities at the Project and, in turn, heightened environmental impacts. The cumulative effects of increased operations (including increased noise, light and dust emissions) have not been adequately assessed or addressed in the Nighttime Operations Request. 11) Our clients remain deeply concerned that the Amendment, if granted, would materially increase environmental risks to their property, amenity and the surrounding environment.	• Data collected from existing air monitoring stations and provided to DWER indicates respirable crystalline silica levels in ambient air is considered low. Air monitoring station M2, which is located between the active mining areas and Receptor 1, indicated a level of 0.213 µg/m3 for quartz/cristobalite. DWER notes, air monitoring station M3, which is located offsite and considered a background monitoring station, had a reading of 1.12 µg/m3, which is over 5 times higher. These levels are still well below the Licence Trigger Value Level of 10 µg/m3. • The applicant has provided the results of material characterisation of the clay slimes, and the department has determined that it presents a low risk with respect to impacting surrounding land uses from a potential contamination perspective should dust emissions occur beyond the premises boundary. Nighttime Operations Request (items 6 to 10) • The proposed conditional approval to carry-out night-time operations has not been authorised as part of this amendment. • Night-time mining operations are currently only authorised under the Licence for the purposes of investigating if noise from night-time activities can comply with the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997*. This is an existing requirement in the licence which has been retained to allow the Licence Holder flexibility to demonstrate compliance and potentially add this authorisation into the licence at a later date (a separate licence amendment application will be required, and stakeholder consultation will be carried-out prior to any subsequent authorisation under the licence).
Email to DWER dated 29/07/2025 and following up meeting held with Yamatji Southern Region Corporation (YSRC) on 2 August 2025	YSRC email comments provided 29/07/2025. *YSRC has concerns that the Lucky Bay campground—located just 0.83 km west of the mining operation and identified in the Yamatji Indigenous Land Use Agreement (ILUA) as a key*	1. The department originally grouped campground and shack receptors as one potential human-health receptor for the purposes of the risk assessment process. The department now however acknowledges the separation distance between the

	economic site—has been grouped with the more distant Halfway Bay shacks (2.26 km away) for assessing sensitive receptors. *This grouping potentially underestimates the campground's exposure to dust and noise impacts, especially given its closer proximity and alignment with prevailing wind patterns. Notably, the EPA recommends a minimum 2 km separation buffer for mineral sands mining operations, and the campground clearly falls within this buffer.* *We respectfully request DWER provide clarification on:* *1. The rationale for grouping the campground with the more distant Halfway Bay shacks;* *2. Whether this grouping is consistent with EPA guidelines;* *3. What additional monitoring or reassessment will occur to ensure impacts on the campground are adequately managed; and* *4. Why conditions 15–20 and 28–30 were removed from the final licence, specifically in relation to noise, dust, and groundwater impacts.* *5. Whether the buffer associated with the neighbouring licence area presents a risk to YSRC's ability to improve and further develop the campground.*	two receptors and therefore has assessed Lucky Bay campground and Halfway Bay shacks as separate receptors. 2. N/A. See above comment 3. The licence was recently amended (31/10/2025) to strengthen conditions relating to monitoring ambient air quality, inclusion of an additional dust monitoring station, requirement to submit an interim dust management plan and provide a revised dust management plan by 31 March 2026. 4. Regulatory controls relating to managing noise, dust and groundwater impacts remain as conditions in the licence. 5. Land use planning and environmental approvals are different statutory processes. The Department's statutory roles and functions under the EP Act may intersect with the land use planning functions of State and Local Government (and the State Administrative Tribunal on appeal) and often environmental and planning approvals are required at similar times. A decision under Part V of the EP Act on an assessment of an application may be made prior to the final determination of a planning application. However, the Department recognises the importance of land use planning in the context of the delivery of appropriate public health and environmental outcomes and will have regard to the processes and views of other authorities in its decision-making process.
Licence Holder provided comments on 02/12/2025 following a site visit on the same day.	The requirement to install a PM10 High Volume (HiVol) sampler as required by Condition 29 will not allow Mineral Resources to fulfill all the monitoring requirement as currently set out in Table 9. The three (3) HiVol samplers (H1, H2, H3), are not able to undertake continuous PM10 monitoring, they are set up to sample for a 24 hour period at 6-day intervals. The three (3) Kunak Air Pro stations (M1, M2 and M3) undertake PM10 monitoring at 10-minute intervals (specifications for these monitors are attached) which can be viewed in real time. In this case, the definition of Instantaneous would be based on the nearest 10-minute sampling interval – which is the smallest interval that the Kunak can achieve. When referring to the Appeal Convener's Report, it suggests that the intent for monitoring is consistent with the current capabilities of the Kunak Air Pro monitoring station to provide current, real-time data which can be used to provide reassurance to the	Supported. Licence updated with the suggested amendments.

	residents about their concerns and enable timely management action when required. This 'real time' capability is not consistent with that of the HiVol samplers (as noted above). Proposed Solution We swap the requirement for an additional HiVol sampler with that of a Kunac Air Pro dust sampling station to meet the intent of the Ministers decision to ensure timely and effective management of dust events as they occur.	
	Condition 29: Deletion of "31 December 2025" and insertion of "31 January 2026" The Licence Holder has requested an additional 4 weeks to procure a Kunac Air Sampling device because they had been focussed on the HiVol solution as originally required in the Licence.	Supported. Licence updated with the suggested new time frame for installation of an additional air monitoring station.
Licence Holder was provided with draft amendment on 12 December 2025	Refer to Appendix 1	Refer to Appendix 1

5. Conclusion

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

5.1 Summary of amendments

Table 5 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 5: Summary of licence amendments

Condition no.	Proposed amendments
2	Inclusion of new infrastructure construction condition for in-pit settlement ponds.
3 & 4	Inclusion of new auditing and reporting conditions for construction of in-pit settlement ponds.
6	Infrastructure and equipment requirement condition updated to include operational requirements for in-pit settlement ponds and replace 'slimes' with ''by-products'.
7	Discharge to land requirements updated to include: - operational requirements for the discharge of excess sediment collected from in-pit settlement ponds. - operational requirements for discharge of clay by-products to non-trafficked exposed areas as a dust suppressant. - operational requirements for discharge of tailings cyclone stackers discharge to in-pit settlement ponds.
11	Dust controls updated to include operational requirements for use of clay by-products as a dust suppressant.
16	Inclusion of new requirement to monitor volumes of water discharged from cyclone stackers to in-pit settlement ponds.
17, Table 10	Table 10 updated with the following changes: - Ambient air monitoring reference locations updated/corrected. - Monitoring frequency for existing Kunak Air Pro air monitoring stations M1, M2 and M3 updated to '10-minute intervals' which can be viewed in real time. At the last licence amendment stage, the frequency was changed to 'instantaneous', however, 10-minute sampling intervals are the smallest interval the existing Kunak can achieve to provide current real-time data. Any captured data is still capable of providing reassurance to residents of nearby sensitive premises that management actions when required can be undertaken in a timely manner. Installation of new air monitoring station 'M4' as required under condition 32 will also consist of a Kunak Air Pro model like existing stations M1, M2 and M3. DWER notes Appeal Convener's Report for Appeal 001 of 2025 suggested the new air monitoring station is consistent with the current capabilities of the existing Kunak Air Pro monitoring stations. - Trigger values aligned to the correct air monitoring equipment. - Instantaneous trigger values for Kunak monitors have been updated to include relevant wind direction so an exceedance would represent potential impacts to receptors. - Trigger value for Dust Deposition Gauge 3 (DDG3) has been removed from table because this monitoring location is used as a background monitoring location. - Wording from 'Frequency' column for the High Volume Air Samplers which sets

Condition no.	Proposed amendments
	monitoring to a 12-month period has been removed to ensure monitoring occurs on an continual basis.
23, Table 13	A trigger value requirement for standing water level (SWL) was incorrectly shown as '0.2 mbgl' in Table 13. Table 13 has been updated with the correct trigger value of 2.0 mbgl for SWL. 'Note 3' (to Table 13) included for trigger values to clarify that they only relate to ambient monitoring bores.
32	The date an additional air monitoring station is to be installed by the Licence Holder has been extend by a further 4 weeks to allow additional time to procure and install the instrumentation at the Premsies.
37, Table 14	Table updated to reflect changes made in the Licence.
Definitions	Annual period updated to reflect the date when the licence was originally issued i.e 16 December 2024. Default licence template date had not been updated.
	Definition included for 'clay by-product'. The department notes, clay by-products are considered a waste as defined under the EP Act and therefore are subject to fees prescribed under the Environmental Protection Regulations 1987.
Figure 4	Map of dust and noise monitoring locations updated to correct monitoring locations.
Schedule 2, Figure 6	New figure to show in-pit pond design and construction requirements and layout.

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. EMM Consulting Pty Ltd, Supporting document – Part V Licence amendment, *Lucky Bay Garnet Project*, prepared for Australian Garnet Pty Ltd, June 2025
5. Environmental Noise Assessment Report (Ref: 34029-1-24401)
6. Email: Lucky Bay DWER Operating Licence L9440 – Dust monitoring, Matthew Blacklow, Mineral Resources, dated 2/12/2025

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 6, Table 4	The Licence currently specifies the dimensions of the Sand Tailings Storage Area to be 'maintained at 250 m x 806 m'. The approval under the Mining Act 1978 for this infrastructure prescribes that the area be less than 27 ha. AGPL requests that the Licence be amended to align with the Mining Act requirement. Suggested wording for Table 4 is: '*dimensions must be no more than 27 ha'.* In accordance with correspondence from DWER's compliance branch, AGPL has been directed to reduce the height of the Sand Tailings Storage Area to the required 25 mRL. As discussed at the recent DWER site visit, an option to enable the reduction in height is to reshape the sand tailings so that it extends over the adjacent Solar Drying Pond Area, once the slimes in this area are dry. AGPL has proposed amendments to Figure 2 of the Licence to enable the Sand Tailings Storage Area to be extended over the area of the Solar Drying Pond Area (Attachment 2). This will enable reduction of the height to meet regulatory requirements, with the aim of reducing visual impacts and dust emissions. This activity is within the scope of approvals under the Mining Act.	**Not supported** for an increase to Sand Tailings Storage Area. At the licence application stage, the applicant proposed dimensions of the Sand Tailings Storage Area would be maintained at 250 m X 806 m which equates to 20.15 ha in area. This information informed the department in determining risk to the environment from operating the Sand Tailings Storage Area and as a result, the department determined to apply operational requirement conditions in the Licence. This included applying applicant provided dimensions as operational requirements (i.e. 250 m X 806 m). Increasing the Sand Tailings Storage Area up to 27 ha as requested by the applicant, represents an increase of approximately 34% (nearly 7 ha) and therefore may result in greater impacts on nearby human and environmental receptors. The Licence Holder will need to submit a separate licence amendment application, including supporting documentation, seeking an increase of the Sand Tailings Storage Area (i.e. increased footprint). This will then allow appropriate consideration and consultation, as required.
Condition 17	AGPL has sought advice from its specialist dust consultant, Environmental Technical Analytics. Based on this advice, amendments to Table 10 are requested, as follows: i. Proposed restructure of the table to more clearly describe the triggers applicable to the different monitoring equipment types. ii. Amend the Dust Deposition Gauge (DDG) trigger value to apply only to the monitoring location for the closest sensitive receptor. iii. Amend the PM10 trigger of 50 ug/m3 per 24 hours to the Hi-vol monitors instead of the Kunak monitors. Application to the Kunak monitors is currently not appropriate until a better correlation between the Kunak and Hi-vol monitors can be established. iv. Amend the triggers for the Kunak	i. Supported. Table updated. ii. Partially supported. Both DDG1 and DDG2 are positioned to monitor for potential impacts on separate receptors (i.e. Receptor 2 and Receptor 1 respectfully) and therefore are both required. DDG3 is considered to monitor for background levels and therefore a trigger value is not considered necessary and this requirement has been removed from the Licence. iii. **Not supported.** Trigger values retained to reflect current licence requirements for continuous monitoring of PM10. iv. Supported. Table updated. v. Supported. Table updated.

Condition	Summary of Licence Holder's comment	Department's response
	monitors to be associated with a relevant wind direction, such that exceedance would represent potential impacts to receptors. v. Change the frequency from continuous to 10-minute intervals, to align with the capability of the Kunak monitors.	
Condition 23, Table 13	AGPL notes that the trigger for standing water level has been revised from 0.2 mbgl to 2.0 mbgl. AGPL accepts this amendment. It's requested that the 'Unit' for this parameter be revised to 'mbgl' instead of 'mAHD'.	Supported. Condition updated.
	AGPL requests that the groundwater trigger levels be revised such that they apply only to the monitoring bores (MB2, MB3, MB4, MB5, MB8, MB9, MB10, B13) and not for the production bores. It is challenging to sample from bores that are fitted with abstraction pumps, and groundwater can be accurately assessed using the monitoring bores distributed across the site.	**Supported** Note 3 added to Table 13.
	AGPL also requests that MB12 be removed from the list of monitoring bores. Note that there are a number of other monitoring bores located across the site that are monitored in accordance with the Groundwater Operating Strategy, but which do not form part of the monitoring suite relevant to the prescribed activities on the licence.	**Not supported**. Requires further consideration and did not form part of the scope of the assessed application.
Schedule 1: Maps Figure 2	Revised Figure 2: Site Layout provided to show extension of Sand Tailings Storage Area.	**Not supported**. Refer to the department's response in paragraph 1 above in relation to expansion of Sand Tailings Storage Area.
Schedule 1: Maps Figure 4	Revised Figure 4 showing location of dust monitoring equipment provided in attachment 4 to response letter.	Supported. Figure 4 updated in Licence.
	AGPL is seeking additional information in relation to the Lucky Bay Recreational Campground Area (ILUA) as there are multiple reserves within the area but none with this specific name.	Noted. The department accepts AGPL cannot identify campground 'ILUA' and therefore is unsure where to locate an additional receptor (i.e. Receptor 4). The department understands AGPL is seeking additional information in relation to ILUA and will provide this information once determined.