

## **Amendment Report**

## **Application for Licence Amendment**

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

Licence Number	L8561/2011/1
Licence Holder	GMA Garnet Pty Ltd
ACN	009 344 227
Application Number	APP-0026042
Premises	Port Gregory Garnet Mine 1420 George Grey Drive YALLABATHARRA WA 6535 Legal description – Mining tenements M70/856, M70/204, M70/259, M70/926, M70/927, M70/968, G70/171, M70/1330 and M70/1331 (excluding Lot 58 on Plan 65334).
Date of Report	14 April 2025 <b>(FINAL)</b>
Decision	Revised licence granted

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## 1. **Decision summary**

Licence L8561/2011/1 is held by GMA Garnet Pty Ltd (Licence Holder) for the Port Gregory Garnet Mine (the Premises), located at Mining tenements M70/856, M70/204, M70/259, M70/926, M70/927, M70/968, G70/171, M70/1330 and M70/1331 (excluding Lot 58 on Plan 65334).

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during operation of the Premises. As a result of this assessment, Revised Licence L8561/2011/1 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 <a href="https://dwer.wa.gov.au/regulatory-documents">https://dwer.wa.gov.au/regulatory-documents</a>.

#### 2.2 Application summary

On 31 October 2024, the Licence Holder submitted an application to the department to amend Licence L8561/2011/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act).

The application seeks to amend Licence L8561/2011/1 to allow operation of infrastructure recently constructed under works approvals W6584/2021/1 and W6789/2023/1.

A summary of completed infrastructure including the departments assessment of the Licence Holder's compliance with requirements of W6584/2021/1 and W6789/2023/1 is presented in Table 1 below. This summary also describes infrastructure where works have not been completed or have not commenced. Should the Licence Holder decide to complete the outstanding works approved under W6584/2021/1 and W6789/2023/1, the Licence Holder would need to submit the required compliance documentation for those works in accordance with the relevant works approval, and then seek to amend the Licence to authorise operation of the infrastructure.

Infrastructure authorised under W6584/2021/1					
Infrastructure	Compliance report	Compliance assessment	Result	Notes	
Solar Drying Ponds	Combined Environmental	Assessment (construction) -	Compliant	N/A	
Tailings delivery pipelines associated with the solar drying ponds and tailings transfer station	Report - DWER record DWERDT871671 Combined Environmental Commissioning Report – DWER record DWERDT877800	DWERDT1016114 Assessment (commissioning) – DWER record A2287269	Compliant for pipelines	Tailings transfer station not constructed. Licence Holder confirms that the tailings transfer station is not required at this stage (GMA RFI response, 19	

#### Table 1: W6584/2021/1 and W6789/2023/1 compliance summary

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				November 2024)
Bioremediation facility	Environmental Construction Report DWER record DWERDT858637 Note: No commissioning required	DWER record DWERDT862437	Compliant	Approval to operate the bioremediation facility was added to the Licence L8561/2011/1 on 15 February 2024
Groundwater monitoring wells (MB01, MB02, MB03, MB05, MB06 and HM08)	Construction report - DWER record DWERDT988229 Note: Includes baseline ambient groundwater monitoring results also required under W6584/2021/1	DWER record DWERDT1016114	Only non- compliant for late submission of construction report	Administrative non-compliance. No further action required
Infrastructure aut	horised under W678	9/2023/1		_
Infrastructure	Compliance report	Compliance assessment	Result	Notes
Tailings transfer facilities - Western only	Environmental Construction Report received 17 April 2024 (DWER record A2273814)	Compliant	N/A	N/A
Tailings transfer facilities - Western only Tailings transfer facilities - Eastern only	Environmental Construction Report received 17 April 2024 (DWER record A2273814) Environmental Construction Report received 13 December 2024 (EO record APP-0026799)	Compliant DWER response to report dated 6 February 2025 (EO record APP- 0026799)	N/A Non-compliant for variation in location of facility	N/A DWER noted the rational the Licence Holder provided for the change in location DWER considered that the related risk profile from the original assessment is unlikely to change however has decided to reassess during this licence amendment stage

bunding	Report received 17 April 2024 (DWER record A2273814)	auto cut-off (not fitted) RFI letter sent 04 April 2024 (DWER record A228177)	(DWER record A2289952) the automatic cut-off had not been installed because any accidental loss of material from overtopping would be captured within the concrete bunded pad and then gravity-fed back into the process circuit. Additionally, an overtopping alarm notifies process plant staff to manually shutdown infrastructure if required	installing an automatic cut-off when overtopping occurs and considers there is unlikely to be an increased risk to the environment from this change
Tailings separation tank (88,000 L)	Environmental Construction Report received 17 April 2024 (DWER record A2273814)	Compliance not demonstrated for overtopping monitoring alarm – RFI sent 04 June 2024 (DWER record A2284177)	Applicant replied on 24 June 2024 (DWER record A2289952) and advised overtopping monitoring alarm is not required because materials are designed to overtop the tank and then gravity feed to the thickener Additionally, all potential spillage is contained within the wet plant hardstand area before capture within concrete collection sump	DWER noted the variation in plant design and considered that there is unlikely to be an increased risk to the environment from this change
Two Attritioners installed	Environmental Construction Report received 17 April 2024 (DWER record A2273814)	Compliant. DWER notes W6789/2023/1 authorises up to eight Attritioners to be installed	N/A	N/A
100,000 litre concrete sump	Environmental Construction Report received	Compliant.	N/A	N/A

	17 April 2024 (DWER record A2273814)					
Reagent storage tank (5,000 L)	Licence Holder advised 24 June 2024 (DWER record A2289952) the reagent tank was no longer required	N/A	N/A	N/A		
2 x 300 m <sup>3</sup> recycle water tanks	Environmental Construction Report received 17 April 2024 (DWER record A2273814)	DWER notes change in design. Licence Holder converted two existing thickener tanks (replaced by the new thickener tank) into recycle water tanks No change in location (process plant area)	No further action required.	DWER noted the variation in plant design and considered that there is unlikely to be an increased risk to the environment from this change. The recycle water tanks (converted thickener tanks) are located within the existing wet plant area		
Infrastructure not	completed					
Northern tailings tra	Northern tailings transfer facility and re-profiling of existing facility					
Tailings storage po	Tailings storage ponds					
Tailings delivery and return pipelines to tailings storage ponds						
Groundwater monit	oring bores MB03, M	B04, MB07 and MB0	8 at proposed tailing	s storage ponds		
Six additional Attriti	oners					
Heavy and light veh	nicle washdown bays					

The Licence Holder has also applied to include:

• An increase in the total combined storage capacity of the five solar drying ponds constructed under W6584/2021/1.

The works approval authorised construction and time limited operation of five solar drying ponds to store a designed combined total of 33,385 m<sup>3</sup> of tailings (calcareous slurry) material. An assessment of the freeboard and measured beach slope was undertaken during time limited operations and it was determined the actual combined total capacity of the solar drying ponds is 65,745 m<sup>3</sup>. The increase in capacity was due to an observed tailings beach slope of 0.3% as compared to the initial anticipated beach slope of 0.5%.

 An increase in the limit set for pH in bioremediated soils prior to discharge to mined voids. The contaminated soils are generated from the recovery of hydrocarbon spills at the Premises. Licence L8561/2011/1 currently requires the Licence Holder meets the Uncontaminated Fill Criteria of the Landfill Waste Classification and Waste Definitions *2019.* The criteria set a maximum concentration for pH as 8.5, however the coastal soils at the Premises are alkaline in nature due to their high calcium carbonate content. Soil sampling conducted onsite indicates the pH of soils are as high as 9.6. As a result, the Licence Holder has requested the maximum concentration for pH in treated soils at the bioremediation facility is set at 9.7.

• Continued use of Magnafloc 1425 Coagulant (flocculent) at the processing plant.

The use of flocculent at the processing plant during time limited operations was assessed under works approval W6584/2021/1. The department determined the risk to the environment was considered low and therefore did not impose any regulatory conditions for its use. Consequently, the department has not imposed any additional regulatory conditions in the Licence L8561/2011/1 for its use.

### 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 2 below. Table 2 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 2. Licence Holder Controls	Table 2:	Licence	Holder	controls
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Emission	Sources	Potential pathways	Proposed controls
Process plant materials (process water and tailings)	Operating new process plant infrastructure (thickener tank, reagent tank, recycler tank, tailings separation tank and pipelines)	Direct discharge to land from pipeline failure and overtopping of storage tanks	<ul> <li>Alarm and automatic pump cut-off switch</li> <li>New infrastructure located within existing bunded concrete hardstand area draining to collection sump</li> <li>Tank level monitoring system (Tailings separation tank)</li> <li>100 mm high concrete perimeter bund</li> </ul>
Tailings and tailings decant return water	Tailings discharge and return pipelines to solar drying ponds	Direct discharge to land due to pipeline failure and leaks	<ul> <li>Pipelines installed within bunded corridor to contain any spills</li> <li>Flow meter installed to monitor for leaks</li> <li>Processing plant fitted with an alert system to notify operator when a pipeline leak is detected</li> </ul>

Emission	Sources	Potential pathways	Proposed controls	
Dust from drying tailings material	Operation of solar drying ponds	Air/windborne pathway	Use of water carts and dust suppression products if required	
Tailings		Direct discharge to land from overtopping pond embankment/s	<ul> <li>Earthen bunding installed around solar drying ponds</li> <li>Maintain a minimum 500 mm total freeboard (includes a 300 mm operational freeboard of 300 mm and an allowance for a 1% Annual Exceedance Probability 72-hour rain event) above the normal operating pond</li> <li>Daily inspections to ensure freeboard is maintained</li> </ul>	
Tailings leachate		Seepage through walls and base of pond/s	<ul> <li>Sub-areal deposition to promote air- drying</li> <li>Maintain a small decant area</li> <li>Water recovery system for reuse at plant</li> <li>Prior to use, all vegetation matter, cohesive materials and debris materials removed prior to traffic compaction of pond floor and embankments</li> </ul>	
Dust from tailings material	Western and Eastern tailings transfer facilities	Air/windborne pathway	<ul> <li>Dust management procedure controls include:</li> <li>Cease transfer activities during high winds</li> <li>Use of water carts as required</li> <li>Introduce dust suppression activities where required</li> <li>Existing Licence L8561/2011/1 conditions:</li> <li>Dust monitoring</li> <li>Dust suppression requirements</li> </ul>	
Contaminated stormwater		Direct discharge to land	<ul> <li>Perimeter earthen bunding installed around facilities to contain stormwater</li> <li>Base graded with a 1.0 to 2.0% outward fall to collection sumps</li> <li>Collected stormwater removed to the Solar Drying Ponds</li> </ul>	

Emission	Sources	Potential pathways	Proposed controls
Sediment/fines leachate		Seepage through base of facility	<ul> <li>Foundation compacted with a layer of course sand</li> <li>Toe drains installed for collection of seepage water</li> <li>Collected seepage water removed to the Solar Drying Ponds</li> </ul>

#### 3.1.2 Receptors

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

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

Table 3: Sensitive h	numan and environmenta	I receptors and	distance from p	rescribed
activity				

Environmental receptors	Distance from prescribed activity
Hutt Lagoon system (Specified ecosystem: Important wetlands, Western Australia; Environmental Sensitive Area)	At its closest points, approximately 300 m west of the western tailings transfer facility, 1.0 km west of the solar drying ponds and 750 m west of the process plant.
	No surface water lines are located within the proposed prescribed premises (M70/856 and G70171). Topography of the area suggests surface water from the premises drains westerly to Hutt Lagoon.
Department of Biodiversity, Conservation and Attractions (DBCA) Legislated Tenure – Utcha Well Nature Reserve	Located directly north-west from the prescribed premises and approximately 1.0 km from the nearest proposed activity (bioremediation facility).
	Purpose of this reserve is for the conservation of flora and fauna.
	Covers area of 400 hectares – several small, connected perennials and ephemeral wetlands (Utcha Swamps). Hydrologically connected to Hutt Lagoon and provides important habitat for shorebirds and raptures.
Ecologically significant flora	<i>Caladenia elegans</i> (Threatened) within 1.0 km south of the proposed prescribed premises.
Groundwater	Approximately 30 meters below ground level at M70/856 (location of infrastructure and solar drying ponds)



Figure 1: 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 4.

The Revised Licence L8561/2011/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. Category 8 activities.

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

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

Risk Event	Risk rating <sup>1</sup>	Licence		Justification for				
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Holder's controls sufficient?	Conditions <sup>2</sup> of licence	additional regulatory controls
Operation								
			Nearby vegetation		C = Minor L = Unlikely <b>Medium Risk</b>			DWER has determined risks to the environment from operating new infrastructure at the
New wet processing plant infrastructure including: - thickener tank - tailings separation tank - reagent storage tank - recycle water tank - attritoner	Process water Tailings	Pathway: direct discharge via overflow or failure of tank integrity or overflow of concrete sump Impact: Decline in vegetation health and ecosystem disturbance and/or impact to surface water quality	Hutt Lagoon System	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	<u>Condition 2 – operational</u> requirements <u>Condition 11 – inspection</u> <u>of infrastructure</u> Conditions <u>19</u> , 20, 21, 22 and 23 – records and reporting	processing plant will remain the same as risks to the environment from time limited operations authorised under W6789/2023/1. Therefore, regulatory controls applied under W6789/2023/1 have been transferred as new conditions in the Licence. Refer to Section 5 – <i>Risk Assessment of</i> <i>W6789 - Decision</i> <i>Report (July 2023)</i> for further details and justification of regulatory controls applied under W6789/2023/1.
Vehicle washdown facility	Sediment laden / hydrocarbon contaminated wash water and stormwater	Pathway: direct discharge to land via run off from facility and tank rupture Impact:	Nearby vegetation	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 2 – operational requirements Condition 11 – inspection of infrastructure Conditions <u>19</u> , 20, 21, 22	DWER has determined risks to the environment from operating the washdown facility will remain the same as risks to the

Risk Event					Risk rating <sup>1</sup>	Licence		Justification for
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Holder's controls sufficient?	Conditions <sup>2</sup> of licence	additional regulatory controls
		contamination of local soil and vegetation					and 23 – records and reporting	environment from time limited operations authorised under W6789/2023/1. Therefore, regulatory controls applied under W6789/2023/1 have been copied over as new conditions in the Licence. Refer to Section 5 – <i>Risk Assessment of W6789 - Decision Report (July 2023)</i> for further details and justification of regulatory controls applied under W6789/2023/1.
Discharge of tailings (calcareous slurry) into solar drying ponds	Tailings leachate	Pathway: Seepage leading to mounding of underlying groundwater table Impact: Inundation of vegetation root zones, and contamination of surface water ecosystems (Hutt Lagoon)	Groundwater Vegetation Hutt Lagoon System	Refer to Section 3.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	Condition 3 – authorised discharge point Conditions 9 and 10 – groundwater sampling requirements Condition 18 – ambient groundwater monitoring Conditions 19, 20, 21, 22, 23 and 24 – records and reporting Condition 25 and 26 – Improvement Program	DWER has determined risks to the environment from discharge of tailings into solar drying ponds will remain the same as risks to the environment from time limited operations authorised under W6584/2021/1. Therefore, regulatory controls

Risk Event					Risk rating <sup>1</sup>	Licence		Justification for
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = Holder's consequence controls L = likelihood	Conditions <sup>2</sup> of licence	additional regulatory controls	
		Pathway: Seepage to underlying groundwater table Impact: Contamination of groundwater and migration to down- hydraulic gradient surface water receptors	Groundwater Hutt Lagoon System		C = Minor L = Unlikely <b>Medium Risk</b>		Condition 3 – authorised discharge point Conditions <u>9</u> and 10 – groundwater sampling requirements Condition 18 – ambient groundwater monitoring Conditions <u>19</u> , 20, 21, 22, 23 and 24 – records and reporting Condition 25 and 26 – Improvement Program	applied under W6584/2021/1 have been copied over as new conditions in the Licence. Refer to Section 3 – <i>Risk Assessment of</i> <i>W6584 - Decision</i> <i>Report (December</i> <i>2021)</i> for further details and justification for regulatory controls applied under W6584/2021/1.
	Pathway: Direct discharge to land from overtoppingVegetation Hutt LagoonImpact: Decline in vegetation health and contamination of surface water quality (Hutt lagoon)Vegetation Hutt Lagoon SystemTailings (clay slimes)Pathway: Direct discharge to land from pipeline failureVegetation Hutt Lagoon SystemTailings (clay slimes)Pathway: Direct discharge to land from pipeline failureVegetation Hutt Lagoon System	Pathway: Direct discharge to land from overtopping Impact: Decline in vegetation health and contamination of surface water quality (Hutt lagoon)	Vegetation Hutt Lagoon System	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 2 – operational requirements Condition 3 – authorised discharge point Condition 11 – inspection of infrastructure Conditions 19, 20, 21, 22 and 23 – records and reporting	DWER has determined risks to the environment from discharge of tailings to land from overtopping and pipeline failure will remain the same as risks to the environment from time limited operations
		Refer to Section 3.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	Condition 2 – operational requirements Condition 3 – authorised discharge point Condition 11 – inspection of infrastructure Conditions <u>19</u> , 20, 22 and 23 – records and reporting	<ul> <li>operations authorised under</li> <li>W6584/2021/1.</li> <li>Therefore, regulatory controls applied under</li> <li>W6584/2021/1 have been copied over as new conditions in the Licence.</li> <li>Refer to Section 3 – Risk Assessment of W6584 - Decision</li> </ul>		

Risk Event	Risk rating <sup>1</sup>	Licence		Justification for				
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Holder's controls sufficient?	Conditions <sup>2</sup> of licence	additional regulatory controls
								2021) for further details and justification for regulatory controls applied under W6584/2021/1.
West and East tailings transfer facilities	Dust	Pathway: Air/windborne Impact: Decline in vegetation health due to smothering	Ecologically significant flora 1.0 km south of the transfer facilities. Note: The Utcha Well Nature Reserve is no longer considered a receptor for this assessment because the Licence Holder has decided to delay construction of the Northern tailings transfer facility	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1 – managing dust suppression Condition 2 – operational requirements (location) Condition 8 – dust emission controls Conditions 19, 20, 21, 22 and 23 – records and reporting	Existing dust control conditions are applied in the Licence.
	Contaminated stormwater	Pathway: Direct discharge to land via contamination of stormwater from the stored tailings Impact: Decline in vegetation health and surface water ecosystems	Vegetation Hutt Lagoon System approximately 300 m west of transfer facility	Refer to Section 3.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	Condition 2 – operational requirements Condition 11 – inspection of infrastructure Conditions 19, 20, 21, 22 and 23 – records and reporting	DWER has determined risks to the environment from discharge of contaminated stormwater will remain the same as risks to the environment from time limited operations authorised under W6789/2023/1.

Risk Event				Risk rating <sup>1</sup>	Licence		Justification for	
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Holder's controls sufficient?	Conditions <sup>2</sup> of licence	additional regulatory controls
								Therefore, regulatory controls applied under W6789/2023/1 have been copied over as new conditions in the Licence.
	Tailings leachate	Pathway: seepage from dried tailings stockpile Impact: contamination of groundwater and migration to down- hydraulic gradient surface water receptors	Groundwater Hutt Lagoon System approximately 300 m west of transfer facility	Refer to Section 3.1	C = Minor L = Possible <b>Medium Risk</b>	Y	<b>Condition 2 – operational</b> <b>requirements</b> Conditions 19, 20, 21, 22 and 23 – records and reporting	N/A

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

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

## 4. Consultation

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

#### Table 5: Consultation

Consultation method	Comments received	Department response
Department of Energy, Mines, Industry	DEMIRS response received 15 January 2025.	Noted.
Regulation and Safety (DEMIRS) advised of proposal 16 December 2024	DEMIRS has assessed the amendment in the context of Mining Proposal (Reg ID 125489) under assessment and provides no objections or comments on the proposed amendment.	
Yamatji Southern Regional Corporation – request for comment 18 December 2024	No comments received.	N/A.
Phone meeting – Steve Petts, Environmental Manager, GMA Garnet Pty Ltd	Discussed aspects of the Licence amendment application including naming of infrastructure, proposed use of disused evaporation ponds and works not yet completed.	Licence and Amendment Report updated.
Licence Holder was provided with draft amendment on 03 April 2025	Comments in response to proposed licence amendment were received 09 April 2025 and are provided in Appendix 1.	Refer to Appendix 1.

## 5. Conclusion

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

#### 5.1 Summary of amendments

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

Condition no.	Proposed amendments
Previous condition 1	Redundant condition. Adequately covered by alternative existing conditions and proposed new conditions. Deleted from licence.
Previous condition 2	Redundant condition. Adequately covered by alternative existing conditions and proposed new conditions. Deleted from licence.
Previous condition 3	Redundant condition. Containment infrastructure was incorrectly identified in the licence. Operational requirements for containment infrastructure are now

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
	adequately covered under infrastructure operational requirements under updated condition 2. Previous condition 3 deleted from licence.
Previous condition 4	Redundant condition. Adequately covered by <i>Environmental Protection</i> (Unauthorised Discharges) Regulations 2004. Previous condition 4 deleted from licence.
Previous condition 6	The requirement of this condition is now covered under condition 2 - infrastructure operational requirements. Previous condition 6 deleted from licence.
2, Table 1	Site infrastructure operational requirement Table 1 updated to include infrastructure constructed and operated under W6584/2021/1 and W6789/2023/1. Operational requirements under W6584/2021/1 and W6789/2023/1 have been transferred onto the Licence.
3, Table 2	Condition relating to emissions to land has been updated to 'authorised discharge points'. The condition has also been updated to include additional emissions and discharge points currently authorised through time limited operational conditions under W6584/2021/1 and W6789/2023/1.
9	Updated to include the requirement to conduct groundwater sampling in accordance with the relevant Australian Standard.
11	Condition relating to inspections of site infrastructure and equipment has been updated to include additional infrastructure constructed under W6584/2021/1 and W6789/2023/1. The type of inspection required for the additional infrastructure has been copied over from time limited operation conditions under W6584/2021/1 and W6789/2023/1.
18	New condition requiring the Licence Holder to undertake ambient groundwater monitoring through sampling of monitoring wells installed under W6584/2021/1.
	Ambient groundwater monitoring requirements through time limited operational conditions under W6584/2021/1 have been transferred onto the Licence.
	Note: Groundwater monitoring wells authorised under W6789/2023/1 have not been installed.
19	Condition updated to include additional recording and reporting requirements as a result of additional regulatory conditions being included in the Licence.
23	Condition updated requiring the Licence Holder to provide in the biennial environmental report a summary of tailings produced, volume of water recovered from solar drying ponds, and volume of solar dried tailings and bioremediated soils returned to mined voids.

Condition no.	Proposed amendments
Previous conditions 29 and 30	The Licence Holder was required to submit by 31 March 2025 a vegetation monitoring plan (the plan) to undertake ongoing monitoring of vegetation health at the Utcha Well Nature Reserve and Hutt Lagoon Wetland System.
	The Licence Holder submitted the plan on 28 March 2025.
	The plan was to outline proposed monitoring methodology, frequency and locations, including a background monitoring location, and timeframes for commencing the monitoring program.
	DWER will undertake an assessment of the plan outside of this Licence amendment in order to determine if the plan is suitable for monitoring potential impacts on vegetation caused from operations at the Premises. DWER may seek internal and external advice as part of this process.
	Following an assessment of the plan, DWER may seek to amend the Licence to include the Licence Holder's proposed monitoring commitments as conditions of the Licence.
	Previous conditions 29 and 30 deleted from licence.
Definitions	Table updated with new definition terms and descriptions as required.
Schedule 1, Figure 2	Figure updated to indicate location of completed infrastructure at the premises.
Schedule 1, Figure 3	New figure of process plant layout. Previous infrastructure figures deleted from the licence.
Schedule 1, Figure 4	Figure 4 updated to indicate the location of the solar drying ponds.
Schedule 1, Figure 5	New figure to indicate the location of groundwater monitoring bores at the solar drying ponds.
Schedule 2	The maximum concentration allowance for pH in contaminated soils has been increased from 8.5 to 9.7. This increase is due to natural pH of soils at the Premises being moderately alkaline due to the mine's coastal location. Recent soil analysis at the Premises indicates pH in the range of 9.5 – 9.6 with pH of final leachate showing 8.8 – 9.7 (Envirolab, 2024).

## 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. Talis consultants, *Licence Amendment Port Gregory Garnet, Attachment 8 Supporting documentation,* Prepared for GMA Garnet Pty Ltd, 21 October 2024.
- 5. Environmental Protection Act 1986 Part V Division 3 works approval W6584/2021/1 and associated assessment reports.
- 6. Environmental Protection Act 1986 Part V Division 3 works approval W6789/2023/1 and associated assessment reports.
- 7. Resource Engineering Consultants (REC) Pty Ltd 2024, *Tailings Transfer Facility Critical Containment Infrastructure Report*, GMA Garnet Pty Ltd, 15 April 2024.
- 8. Resource Engineering Consultants (REC) Pty Ltd 2024, Eastern Tailings Transfer Facility Critical Containment Infrastructure Report, GMA Garnet Pty Ltd, 13 December 2024.
- 9. Resource Engineering Consultants (REC) Pty Ltd, Technical Memorandum for GMA Garnet Pty Ltd, *Groundwater Monitoring Well Construction Verification*, 3 March 2023.
- GMA responses to the request for further information, Works Approval Compliance Report – Compliance Demonstrated – Further Information Required – Works Approval W6789/2021/1, 19 November 2024.
- 11. Department of Water and Environmental Regulation, December 2019, Landfill Waste Classification and Waste Definitions 1996 (as amended 2019), Government of 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 1 Table 1 - Processing plant: Tailings separation tank a) Located within a 100 mm bunded concrete hardstand area. b) Maintain tank level monitor and alarm system.	The Licence Holder confirmed that the conditions set out in Table 1 for the Tailings Separation Tank were not met. In response, DWER issued a <i>Works Approval Compliance</i> <i>Report—Compliance Not Demonstrated—Further Information</i> <i>Required for Works Approval W6789/2021/1</i> , dated 24 June 2024. The Licence Holder addressed the concerns regarding absence of a concrete bunding and level monitoring/alarm systems and demonstrated that the existing controls were adequate to ensure compliance. On 5 July 2024, DWER reviewed the Licence Holder's detailed response and confirmed that the provided information was satisfactory, thus affirming that the controls were adequate. As a reputed power of a compliance Demonstrated	Noted. Licence updated.
	letter, confirming that the concerns raised had been adequately addressed and resolved.	
Condition 11, Table 6 Inspection infrastructure 8. Washdown bay and holding tanks – Daily inspections confirming the integrity of perimeter bunding and tanks.	The existing workshop/washdown bay does not include perimeter bunding, as this was not a condition in previous licenses. Instead, the washdown bay is equipped with a channel drain along the edge of the pad, which captures water and directs it to the holding tanks for filtration. Installing bunding would potentially pose a hazard to users, as the washdown bay also serves as a maintenance workshop. The Licence Holder requests that the requirement for perimeter bunding be reconsidered and removed.	Supported. Condition updated.