



Application for Licence Amendment

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

Licence Number	L5415/1988/9
Licence Holder	BHP Iron Ore Pty Ltd
ACN	008 700 981
File Number	DER2013/000900-1
Premises	Wheellarra Hill (Jimblebar) Iron Ore Mine Tenements L52/108, L52/109, L52/163, I126948, M266SA and ML244SA NEWMAN WA 6753 As defined by the Premises maps attached to the Revised Licence
Date of Report	19 July 2022
Decision	Revised licence granted

Sonya Poor

A/Manager, Resource Industries

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Licence L5415/1988/9 is held by BHP Iron Ore Pty Ltd (Licensee) for the Wheelarra Hill (Jimblebar) Iron Ore Mine (the Premises).

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L5415/1988/9 has been granted.

2. Scope of assessment

2.1 Regulatory framework

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

2.2 Amendment summary

On 7 April 2022, the Licensee submitted an application to the department to amend Licence L5415/1988/9 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). Table 1 below outlines the proposed changes to the existing Licence. No changes have been made under category 54 and 73.

Table 1: Proposed changes to the existing Licence

Description of proposed amendment	Current throughput capacity	Proposed throughput capacity
Category 5		
Construction of a new Train Load out (TLO) with no change to the throughput.	-	-
Category 6		
The Caramulla Managed Aquifer Recharge (MAR) scheme adds an additional flexibility by increasing the MAR capacity by 10.95 GL/a reinjection and the creek discharge by 32.85 GL/a. However, the capacity remains unchanged at 47.225 GL/a.	47.225 GL/a	No change
Addition of the Caramulla reinjection bores: <ul style="list-style-type: none">• HCM0026P;• HCM0027P, and• HCM0028P.	-	-
Addition of the Caramulla MAR monitoring bores: <ul style="list-style-type: none">• HCM0008M;• HCM0017M;• HCM0043M;• HCM0044M;• HCM0045M;	-	-

Description of proposed amendment	Current throughput capacity	Proposed throughput capacity
<ul style="list-style-type: none"> • HCM0046M; • HCM0047M; and • HCM0059M. 		
Addition of the Creek Discharge monitoring bore HCM0019M.	-	-
Addition of the Caramulla Creek Discharge Point FJB0017.	-	-
Addition of HASHI Turkeys Nest FJB0016 as a water quality monitoring point.	-	-
Removal of the groundwater depth requirements for Orebody 18 MAR monitoring bore HMG0058M. The bore is dry and there are sufficient bores in the area to identify potential impacts.	-	-
Removal of failed Orebody 18 MAR bore HEOP0842P.	-	-
Category 12		
Operation of a mobile crushing and screening plant with a maximum capacity of 1 million tonnes per annum (mtpa) at the Jimblebar Rail Loop.	-	-
<p>Design capacity will have an increase of 300,000 tonnes per annum (tpa) that will result in a total capacity of 500,000 tpa.</p> <p>This will allow for the crushing and screening of material of the new TLO.</p>	200,000 tpa	500,000 tpa
Category 64		
Construction of two new inert landfills within the Jimblebar Rail Loop to allow for disposal of inert concrete and rail ballast.	-	-
Design capacity will have an increase of 10,000 tpa that results in a total capacity of 25,000 for the additional inert waste.	15,000 tpa	25,000 tpa
Other		
Expanding the prescribed premises boundary to the east to incorporate the Caramulla MAR scheme and associated facilities with the new TLO	-	-
<p>Removal of the Ninga MAR injection bores due to groundwater mounding levels:</p> <ul style="list-style-type: none"> • HEOP0843P; • HEOP0845P; and • HEOP0847P <p>Note: Groundwater mounding will be monitored by the adjacent bores HEOP0842M, HEOP0828M, and HEOP0838M.</p>	-	-

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 2020b).

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

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this Amendment Report are detailed in Table 2 below. Table 2 also details the proposed control measures the Licensee has proposed to assist in controlling these emissions, where necessary.

Table 2: Licensee controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
<u>Category 5</u>			
Dust	Construction and mobilisation of new train load out (TLO) Site establishment works Vehicle movements	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	<ul style="list-style-type: none"> • general dust management will be conducted in accordance with the <i>Jimblebar Hub EMP Rev 5</i> • dust control on unsealed roads and earthworks of the new TLO area will be managed by water cart usage as required • water sprays (comprising of a feed tank, pumps, and spray nozzles) will be installed on the TLO feed conveyor, crusher, transfer points, and stacking points and for loaded ore cars just after the train loading chute • dust controls (e.g., water sprays / cannons, belt scrapers) will be installed and maintained on stackers, reclaimers, and conveyors
Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)		Seepage / spillage potentially causing ecosystem disturbance / soil contamination	<ul style="list-style-type: none"> • any hydrocarbons brought to site will be stored in a bunded area or be stored in double skinned storage tanks • in the event of a hydrocarbon spill, contaminated soil will be cleaned up and relocated to the licensed bioremediation cells
<u>Category 6</u>			
Dust	Construction of reinjection and monitoring bores	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	<ul style="list-style-type: none"> • general dust management will be conducted in accordance with the <i>Jimblebar Hub EMP Rev 5</i>
<u>Category 12</u>			
Dust	Installation and mobilisation of temporary (12 month) crushing and screening plant	Air / windborne pathway Smothering of vegetation causing impacts to	<ul style="list-style-type: none"> • general dust management will be conducted in accordance with the <i>Jimblebar Hub EMP Rev 5</i> • dust control on unsealed roads and earthworks of the crushing and

Emission	Sources	Potential pathways	Proposed controls
	Site establishment works Vehicle movements	vegetation health and impact to air quality	<p>screening plant area will be managed by water cart usage as required</p> <ul style="list-style-type: none"> water sprays (comprising of a feed tank, pumps, and spray nozzles) will be installed on the mobile crushing and screening plant at the crusher, transfer points, and stacking points
Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)		Seepage / spillage potentially causing ecosystem disturbance / soil contamination	<ul style="list-style-type: none"> any hydrocarbons brought to site will be stored in a bunded area or be stored in double skinned storage tanks in the event of a hydrocarbon spill, contaminated soil will be cleaned up and relocated to the licensed bioremediation cells
Category 64			
Dust	Construction of inert landfills Transport of inert waste, concrete, and rail ballast Vehicle movements	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	<ul style="list-style-type: none"> dust control on unsealed roads and earthworks of the landfill site area will be managed by water cart usage as required
Commissioning			
Category 5			
Dust	Commissioning of new TLO Vehicle movements	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	<ul style="list-style-type: none"> general dust management will be conducted in accordance with the <i>Jimblebar Hub EMP Rev 5</i> dust control on unsealed roads will be managed by water cart usage as required water sprays will be maintained and operated on the TLO feed conveyor, crusher, transfer points, and stacking points and for loaded ore cars just after the train loading chute dust controls (e.g., water sprays / cannons, belt scrapers) will be maintained and operated on stackers, reclaimers, and conveyors
Discharge of contaminants to land		Seepage / spillage potentially causing	<ul style="list-style-type: none"> any hydrocarbons brought to site will be stored in a bunded area or be stored in double skinned storage tanks

Emission	Sources	Potential pathways	Proposed controls
(e.g., hydrocarbon spillage from filling)		ecosystem disturbance / soil contamination	<ul style="list-style-type: none"> in the event of a hydrocarbon spill, contaminated soil will be cleaned up and relocated to the licensed bioremediation cells
Category 6			
Direct discharge of mine dewater via designated groundwater emission points	Groundwater reinjection at Caramulla MAR scheme area	<p>Direct discharge by designated groundwater emission points</p> <p>Mounding from reinjection resulting in a decline in vegetation health, loss of subterranean fauna habitat</p> <p>Changes to groundwater quality causing degradation of subterranean fauna habitat</p>	<ul style="list-style-type: none"> monitoring bores HCM0043, HCM0044 HCM0045; HCM0046 and HCM0047 will be managed to a trigger level of 29 mbgl and a threshold of 25 mbgl as detailed in the <i>Jimblebar Water Management Plan</i> (BHP, 2019) water quality of abstracted groundwater will be tested quarterly at the HASHI Turkeys Nest during operation groundwater monitoring will be undertaken quarterly at the two monitoring bores HCM0008 and HCM0017
Direct discharge of mine dewater via designated surface water emission points		<p>Direct discharge, surface water runoff</p> <p>Discharge resulting in erosion at the Caramulla Creek Discharge point</p> <p>Changes to surface water quality and impacts to vegetation health downstream of Caramulla Creek Discharge point</p>	<ul style="list-style-type: none"> erosion controls built as part of the discharge point design will be in place during the commissioning period the discharge point will be regularly inspected during commissioning to identify any erosion that may occur if an erosion event is identified additional erosional control measures will be implemented (e.g., extending rip rap) and if required repairs undertaken discharge into the Caramulla Creek will be managed to ensure it does not extend past the Wetting Front Limit (and the associated Wetting Front Early Warning Point) located at 34 km from the discharge point water quality of abstracted groundwater will be tested quarterly at the HASHI Turkeys Nest during commissioning
Category 12			
Dust	Commissioning of temporary (12 month) crushing and screening plant	Air / windborne pathway Smothering of vegetation	<ul style="list-style-type: none"> general dust management will be conducted in accordance with the <i>Jimblebar Hub EMP Rev 5</i>

Emission	Sources	Potential pathways	Proposed controls
	(i.e., crushing, screening, unloading/loading, and stockpiling of material) and dust suppression sprays Vehicle movements	causing impacts to vegetation health and impact to air quality	<ul style="list-style-type: none"> dust control on unsealed roads and earthworks of the crushing and screening plant area will be managed by water cart usage as required water sprays will be operated and maintained on the mobile crushing and screening plant at the crusher, transfer points, and stacking points
Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)		Seepage / spillage potentially causing ecosystem disturbance / soil contamination	<ul style="list-style-type: none"> any hydrocarbons brought to site will be stored in a bunded area or be stored in double skinned storage tanks in the event of a hydrocarbon spill, contaminated soil will be cleaned up and relocated to the licensed bioremediation cells
Operation			
<u>Category 5</u>			
Dust	Operation of new TLO	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	<ul style="list-style-type: none"> general dust management will be conducted in accordance with the <i>Jimblebar Hub EMP Rev 5</i> dust control on unsealed roads will be managed by water cart usage as required water sprays will be maintained and operated on the TLO feed conveyor, crusher, transfer points, and stacking points and for loaded ore cars just after the train loading chute dust controls (e.g., water sprays / cannons, belt scrapers) will be maintained and operated on stackers, reclaimers, and conveyors
Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)		Seepage / spillage potentially causing ecosystem disturbance / soil contamination	<ul style="list-style-type: none"> any hydrocarbons brought to site will be stored in a bunded area or be stored in double skinned storage tanks in the event of a hydrocarbon spill, contaminated soil will be cleaned up and relocated to the licensed bioremediation cells
<u>Category 6</u>			
Direct discharge of mine dewater via designated groundwater emission points	Groundwater reinjection at Caramulla MAR scheme area	Direct discharge by designated groundwater emission points Mounding from reinjection	<ul style="list-style-type: none"> monitoring bores HCM0043, HCM0044 HCM0045; HCM0046 and HCM0047 will be managed to a trigger level of 29 mbgl and a threshold of 25 mbgl as detailed in the <i>Jimblebar Water Management Plan</i> (BHP, 2019)

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Emission	Sources	Potential pathways	Proposed controls
		<p>resulting in a decline in vegetation health, loss of subterranean fauna habitat</p> <p>Changes to groundwater quality causing degradation of subterranean fauna habitat</p>	<ul style="list-style-type: none"> five groundwater monitoring bores HCM0004, HCM0044, HCM0045, HCM0046, and HCM0047 will be used to identify the extent of mounding associated with the MAR scheme water quality of abstracted groundwater will be tested quarterly at the HASHI Turkeys Nest during operation groundwater monitoring will be undertaken quarterly at the two monitoring bores HCM0008 and HCM0017
Direct discharge of mine dewater via designated surface water emission points		<p>Direct discharge, surface water runoff</p> <p>Discharge resulting in erosion at the Caramulla Creek Discharge point</p> <p>Changes to surface water quality and impacts to vegetation health downstream of Caramulla Creek Discharge point</p>	<ul style="list-style-type: none"> the discharge point will be regularly inspected during operation to identify any erosion that may occur if an erosion event is identified additional erosional control measures will be implemented (e.g., extending rip rap) and if required repairs undertaken discharge into the Caramulla Creek will be managed to ensure it does not extend past the Wetting Front Limit (and the associated Wetting Front Early Warning Point) located at 34 km from the discharge point water quality of abstracted groundwater will be tested quarterly at the HASHI Turkeys Nest during operation
Category 12			
Dust	Operation of temporary (12 month) crushing and screening plant (i.e., crushing, screening, unloading/loading, and stockpiling of material) and dust suppression sprays	<p>Air / windborne pathway</p> <p>Smothering of vegetation causing impacts to vegetation health and impact to air quality</p>	<ul style="list-style-type: none"> general dust management will be conducted in accordance with the <i>Jimblebar Hub EMP Rev 5</i> dust control on unsealed roads and earthworks of the crushing and screening plant area will be managed by water cart usage as required water sprays will be operated and maintained on the mobile crushing and screening plant at the crusher, transfer points, and stacking points
Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)	Vehicle movements	Seepage / spillage potentially causing ecosystem disturbance / soil contamination	<ul style="list-style-type: none"> any hydrocarbons brought to site will be stored in a bunded area or be stored in double skinned storage tanks in the event of a hydrocarbon spill, contaminated soil will be cleaned up and relocated to the licensed bioremediation cells

Emission	Sources	Potential pathways	Proposed controls
Category 64			
Dust	Disposal of inert waste, concrete, and rail ballast Vehicle movements	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	<ul style="list-style-type: none"> dust control on unsealed roads and earthworks of the landfill site area will be managed by water cart usage as required disposal of the inert waste will be managed in accordance with Condition 1.2.1 to 1.2.7 of the existing licence
Discharge and leachate	Disposal of inert waste, concrete, and rail ballast Contaminated stormwater	Via soil and groundwater Contamination of soil, groundwater, and surface water	<ul style="list-style-type: none"> inert waste, concrete, and rail ballast will only be disposed within the new inert landfills if it is classified as inert as defined in accordance with the <i>Landfill Waste Classification and Waste Definitions</i> (DWER 2019) waste will be tested to confirm if it's inert before disposal within the inert landfills
Ancillary Activities			
Sediment laden and / or contaminated stormwater to surface and / or groundwater	Refueling, accidental spillage, leaks, and equipment malfunction (e.g., lines bursting)	Overland runoff potentially causing ecosystem disturbance Runoff from area following rain / drainage Seepage causing contamination of surface water and / or groundwater	<ul style="list-style-type: none"> any hydrocarbons brought to site will be stored in a bunded area or be stored in double skinned storage tanks in the event of a hydrocarbon spill, contaminated material will be cleaned up

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020a), the Delegated Officer has excluded employees, visitors and contractors of the Licensee'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 2020b)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

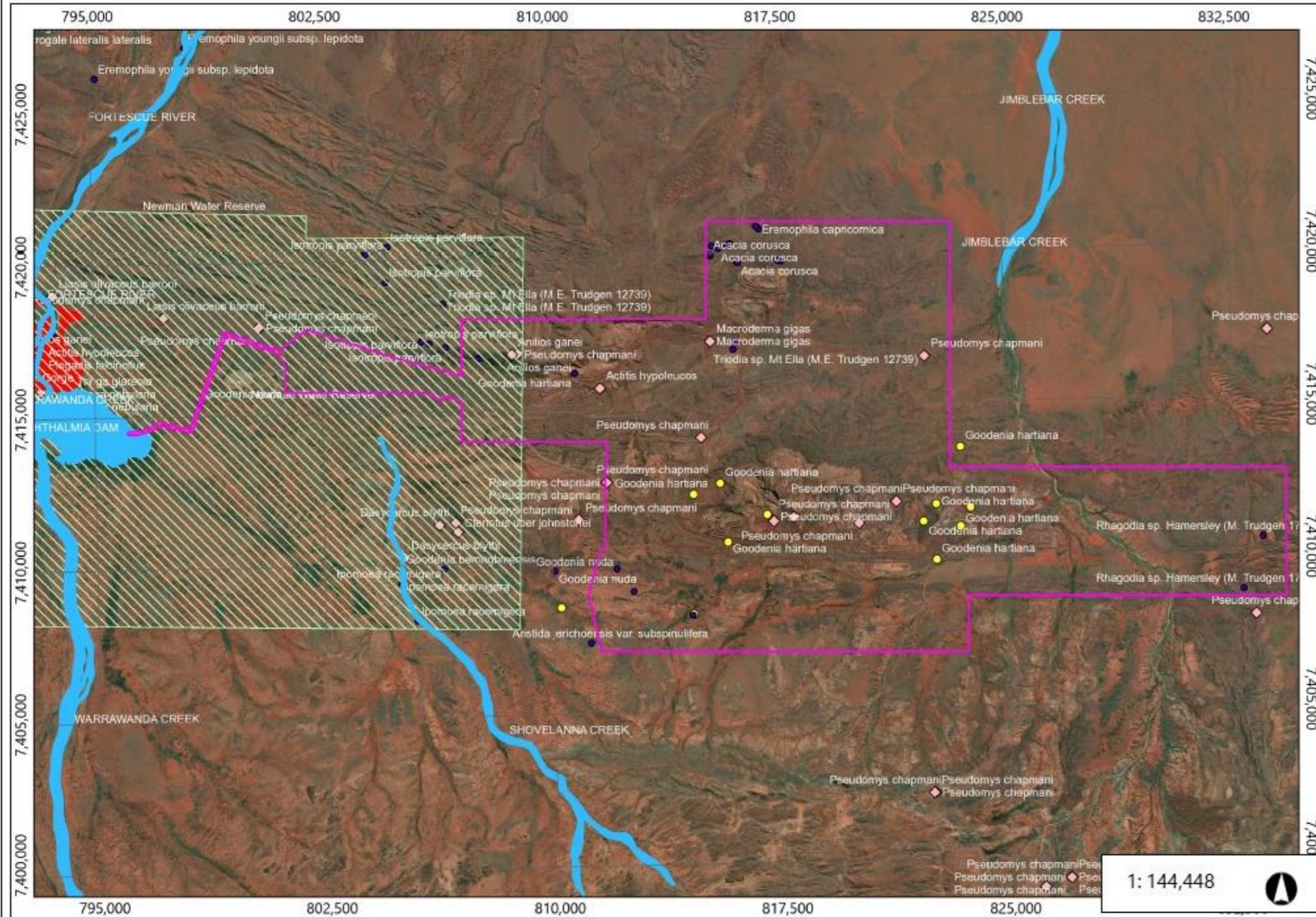
Human receptors	Distance from prescribed activity
BHP's Warrawundu Village	More than 500 m from the closest point to the prescribed premises boundary of L5415/1988/9 and about 9 km from the nearest mining operations. Screened out receptor due to distance from prescribed activity.
Sylvania Homestead/Station	Approximately 20 km south of the prescribed premises boundary. Screened out receptor due to distance from prescribed activity.
Environmental receptors ¹	Distance from prescribed activity
Public Drinking Water Source Area <i>P1 Newman Water Reserve</i>	Partially overlaps a portion of the prescribed premises boundary to the west.
<i>RIWI Act 1914</i> <i>Pilbara Groundwater Area</i> Regional aquifer: Hamersley – Fractured Rock Aquifer Discharge activities occur at the licensed Ophthalmia Dam Depth to groundwater ranges from 30 to 120m.	Occurs within the prescribed premises boundary.
<i>RIWI Act 1914</i> <i>Pilbara Surface Water Area</i> Caramulla Creek is a major ephemeral tributary	Occurs within the prescribed premises boundary.
Conservation significant flora No threatened flora within the prescribed premises boundary. Nine Priority flora have been recorded within the prescribed premises boundary. Note: All disturbances associated within the prescribed premises will be in accordance with MS 1126 and native vegetation clearing permit.	<ol style="list-style-type: none"> 1. <i>Acacia corusca</i> P1 2. <i>Aristida jerichoensis</i> var. <i>subspinulifera</i> P3 3. <i>Eremophila capricornica</i> P1 4. <i>Euphorbia inappendiculate</i> var. <i>inappendiculate</i> P2 5. <i>Goodenia nuda</i> P4 6. <i>Isotropis parviflora</i> P2 7. <i>Josephinia</i> sp. Marandoo (M.E. Trudgen 1554) P1 8. <i>Rhagodia</i> sp. Hamersley (M. Trudgen 17794) P3 9. <i>Triodia</i> sp. Mt Ella (M.E. Trudgen 12739) P3

Environmental receptors ¹	Distance from prescribed activity
<p>Conservation significant fauna</p> <p>Nine fauna species occur within the prescribed premises boundary.</p> <p>Most significant species are transitory.</p> <p>Priority fauna locations will be avoided where practicable.</p>	<ol style="list-style-type: none"> 1. <i>Anilius gaei</i> (Pilbara flat-headed blind-snake) DBCA P1 2. <i>Apus pacificus</i> (Fork-tailed swift) EPBC Act Migratory (MI), BC Act Schedule (S) 5 3. <i>Ctenotus uber</i> subsp. <i>johnstonei</i> (Spotted ctenotus) DBCA P2 4. <i>Dasyercus blythi</i> (Brush-tailed mulgara) DBCA P4 5. <i>Liasis olivaceus</i> subsp. <i>barroni</i> (EPBC Act Vulnerable (VU), BC Act S3) 6. <i>Macroderma gigas</i> (Ghost Bat) EPBC Act VU, BC Act S3 7. <i>Merops ornatus</i> (Rainbow bee-eater) EPBC Act MI, BC Act S5 8. <i>Pseudomys chapmani</i> (Western pebble-mound mouse) DBCA P4 9. <i>Rhinonictoris aurantia</i> (Pilbara leaf-nosed bat) EPBC Act VU, BC Act S3
<p>Threatened ecological communities (TECs) / PECs</p> <p><i>Ethel Gorge aquifer stygobiont community (TEC - Endangered)</i></p> <p>Ethel Gorge, typically groundwater levels are 10 mbgl</p>	<p>About 2.48 km west from the prescribed premises boundary closest to Ophthalmia Dam (adequately managed under MS 1126).</p>

¹ Jimblebar Hub environmental management is governed by MS 439, 1012, 1021, and 1126; and their associated management plans. Any native vegetation clearing outside the prescribed premises under the several MS are governed by Native Vegetation Clearing Permits 2160/2, 2296/4, 3012/3, 3547/3, 3609/4, 3843/2, 4875/3, 5990/1 and 6834/1.



Distance to sensitive receptors



Legend

- 23. Hydrography
- WA 250K - Surface Waterbodies (GA 2015)
- Public Drinking Water Source Areas
- 20. Flora - WAHerb
- 20. Flora - TPFL
- 19. Threatened and Priority Ecological Communities (WA TEC/PEC)
- Critically Endangered
- Endangered
- Vulnerable
- Priority 1
- Priority 2
- Priority 3
- Priority 4
- De-list
- Data Deficient
- Lower Risk
- Not Evaluated
- 21. Threatened Fauna
- Prescribed Premises Boundary

Notes

Author:
Recipient:

1: 144,448

10.4 0 5.19 10.4 Kilometers

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Government of Western Australia, Department of Water and Environmental Regulation.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Figure 1: Distance to sensitive receptors

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IR-T15 Amendment report template v3.0 (May 2021)

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020a) 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 Licensee 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 Licensee'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 Licensee'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 L5415/1988/9 that accompanies this Amendment Report authorises emissions associated with the operation of the prescribed premises.

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 prescribed premises during construction, commissioning and operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licensee's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licensee's controls				
Construction								
Category 5								
Construction and mobilisation of new train load out (TLO) Site establishment works Vehicle movements	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The construction of the TLO will be within the prescribed premises boundary where the previous TLO was located.	N/A
	Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)	Seepage / spillage potentially causing ecosystem disturbance / soil contamination	Soils Native vegetation Surface water Groundwater	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Condition 1.2.11	N/A
Category 6								
Construction of reinjection and monitoring bores	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The construction of the reinjection and monitoring	N/A

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Risk Event					Risk rating ¹ C = consequence L = likelihood	Licensee's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licensee's controls				
							bores will be within the prescribed premises boundary in previously disturbed areas with minimal to no vegetation.	
Category 12								
Installation and mobilisation of temporary (12 month) crushing and screening plant Site establishment works Vehicle movements	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The installation of the mobile crushing and screening plant will be within the prescribed premises boundary located adjacent to the Jimblebar Rail Loop.	N/A
	Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)	Seepage / spillage potentially causing ecosystem disturbance / soil contamination	Soils Nearby vegetation Surface water Groundwater	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Condition 1.2.11	N/A

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licensee's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licensee's controls				
Category 64								
Construction of inert landfills Transport of inert waste, concrete, and rail ballast Vehicle movements	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The construction of the inert landfills will be within the prescribed premises boundary in previously disturbed areas with minimal to no vegetation.	N/A
Commissioning								
Category 5								
Commissioning of new TLO Vehicle movements	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The commissioning of the TLO will be within the prescribed premises boundary where the previous TLO was located.	N/A

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licensee's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licensee's controls				
Category 6								
Groundwater reinjection at Caramulla MAR scheme area	Direct discharge of mine dewater via designated groundwater emission points	Direct discharge by designated groundwater emission points Mounding from reinjection resulting in a decline in vegetation health, loss of subterranean fauna habitat Changes to groundwater quality causing degradation of subterranean fauna habitat	Groundwater Subterranean fauna (particularly stygofauna) Nearby vegetation Riparian vegetation	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1.2.11, 1.2.18 , 2.3.1, 3.3.1, 3.5.1, 4.3.1	Additional control for the operation of the additional reinjection and monitoring bores in accordance with the existing licence conditions.
Groundwater discharge to Caramulla Creek	Direct discharge of mine dewater via designated surface water emission points	Direct discharge, surface water runoff Discharge resulting in erosion at the Caramulla Creek discharge point Changes to surface water quality and impacts to vegetation health downstream of Caramulla Creek discharge point	Surface water Groundwater Nearby fauna Nearby vegetation Riparian vegetation Soil	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1.2.11, 2.2.1, 3.2.1, 3.3.1, 4.2.1	N/A

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licensee's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licensee's controls				
Category 12								
Commissioning of temporary (12 month) crushing and screening plant (i.e., crushing, screening, unloading/loading, and stockpiling of material) and dust suppression sprays Vehicle movements	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The commissioning of the mobile crushing and screening plant will be within the prescribed premises boundary located adjacent to the Jimblebar Rail Loop.	N/A
Operation								
Category 5								
Operation of new TLO	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The operation of the TLO will be within the prescribed premises boundary where the previous TLO was located.	N/A
	Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)	Seepage/ spillage potentially causing ecosystem disturbance/ soil contamination	Soils Nearby vegetation Surface water	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Condition 1.2.11, 1.2.17 , 4.2.1, 4.3.1	Additional control for the operation of the new TLO in accordance with the existing licence conditions.

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licensee's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licensee's controls				
			Groundwater					
Category 6								
Groundwater reinjection at Caramulla MAR scheme area	Direct discharge of mine dewater via designated groundwater emission points	Direct discharge by designated groundwater emission points Mounding from reinjection resulting in a decline in vegetation health, loss of subterranean fauna habitat Changes to groundwater quality causing degradation of subterranean fauna habitat	Groundwater Subterranean fauna (particularly stygofauna) Nearby vegetation Riparian vegetation	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1.2.11, 2.3.1, 3.3.1, 3.5.1, 4.2.1	N/A
Groundwater discharge to Caramulla Creek	Direct discharge of mine dewater via designated surface water emission points	Direct discharge, surface water runoff Discharge resulting in erosion at the Caramulla Creek discharge point Changes to surface water quality and impacts to vegetation health downstream of Caramulla Creek	Surface water Groundwater Nearby fauna Nearby vegetation Riparian vegetation Soil	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1.2.11, 2.2.1, 3.2.1, 3.3.1, 4.2.1	N/A

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licensee's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licensee's controls				
		discharge point						
Category 12								
Operation of temporary (12 month) crushing and screening plant (i.e., crushing, screening, unloading/loading, and stockpiling of material) and dust suppression sprays Vehicle movements	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The operation of the mobile crushing and screening plant will be within the prescribed premises boundary located adjacent to the Jimblebar Rail Loop.	N/A
	Discharge of contaminants to land (e.g., hydrocarbon spillage from filling)	Seepage/ spillage potentially causing ecosystem disturbance/ soil contamination	Soils Nearby vegetation Surface water Groundwater	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Condition 1.2.11, 1.2.16 , 4.2.1, 4.3.1	Additional control for the operation of the crushing and screening plant in accordance with the existing licence conditions.
Category 64								
Disposal of inert waste, concrete, and rail ballast Vehicle movements	Dust	Air / windborne pathway Smothering of vegetation causing impacts to vegetation health and impact to air quality	Nearby vegetation Priority flora Ambient air quality	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	No dust conditions are proposed for the licence. Dust management at the Premises is managed in accordance with the <i>Jimblebar Hub EMP Rev 5</i> . The disposal of inert waste will be within the prescribed premises boundary in newly constructed inert landfills.	N/A

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licensee's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licensee's controls				
Disposal of inert waste, concrete, and rail ballast Contaminated stormwater	Direct discharge and leachate	Via soil and groundwater Contamination of soil, groundwater, and surface water	Groundwater at various depths Surface water Potential adjacent ecosystems Soil	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Condition 1.2.3 Under the <i>Landfill Waste Classification and Waste Definitions</i> (DWER 2019), Table 2a includes examples of Inert Waste Type 1, which stipulates that concrete waste " <i>is not mixed with any other type of waste (specifically green and food waste) and does not contain any asbestos or PFAS.</i> "	N/A
Ancillary Activities								
Refueling, accidental spillage, leaks, and equipment malfunction (e.g., lines bursting)	Sediment laden and/or contaminated stormwater to surface and/or groundwater	Overland runoff potentially causing ecosystem disturbance Runoff from area following rain / drainage Seepage causing contamination of surface water and/or groundwater	Nearby vegetation Nearby drainage lines Soil Surface water Groundwater	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1.2.8 to 1.2.17, 2, 4.2.1, 4.3.1	N/A

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

Note 2: Proposed Licensee'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 Jobs, Tourism, Science, and Innovation (JTSI) advised of proposal on 3 May 2022	No comments were received	N/A
Licensee was provided with draft amendment on 23 June 2022	The Licensee provided comments on 1 July 2022 that are detailed in Appendix 1.	The department has provided response to the received comments that are detailed in 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.

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
-	Changes to assessed production / design capacity for Category 6 are indicated in bold and yellow highlight: 47.225 gicalitres per annual period: Consisting of: <ul style="list-style-type: none"> • 23.36 gicalitres reinjected (OB18, Jimblebar and Caramulla MAR schemes), • 35.04 gicalitres discharged to Copper Creek, tributary of Jimblebar Creek and Caramulla Creek, and • 32.625 gicalitres discharged to Ophthalmia Dam.
-	Assessed production / design capacity for Category 12 has increased from 200,000 to 500,000 tonnes per year
-	Assessed production / design capacity for Category 64 has increased from 15,000 to 25,000 tonnes per annual period
1.2.1	Waste quantity limit has been updated to 25,000 tonnes per annual period in Table 1.2.1
1.2.10	Table 1.2.5 has had category 6 and 12 'Premises production or design capacity limit column' updated and associated additional text indicated in bold and yellow highlight: <ul style="list-style-type: none"> • 23.36 gicalitres reinjected (OB18, Jimblebar and Caramulla MAR schemes), • 35.04 gicalitres discharged to Copper Creek, tributary of Jimblebar Creek and Caramulla Creek, and

Condition no.	Proposed amendments		
	500,000 tonnes per annual period		
1.2.11	Table 1.2.6 has been updated to include the following:		
	Column 1	Column 2	Column 3
	Infrastructure / Equipment	Requirements (design and construction)	Site plan reference
	Up to 1 mtpa mobile crushing and screening plant (non-ore)	Operation of up to 1 mtpa crushing and screening plant to process non-ore material for the TLO project	Up to 1 mtpa mobile crushing and screening plant to be located adjacent to the Jimblebar Rail Loop as shown in the 'Jimblebar Hub DWER Licence Infrastructure' map in Schedule 1
	Jimblebar new TLO	Construction and operation of a new TLO adjacent to the existing TLO	Jimblebar new TLO as shown in the 'Jimblebar Hub DWER Licence Infrastructure' map in Schedule 1
	Category 64 inert landfill	Two new inert landfills within the Jimblebar Rail Loop	Inert Landfills as shown in the 'Jimblebar Hub DWER Licence Infrastructure' map in Schedule 1
	Caramulla MAR scheme	Additional reinjection bores to meet the 10.95 GL/a rate (if required) and replacement reinjection bores for failed bores	To be located within the Construction Zone for new Caramulla MAR bores as shown in the 'Jimblebar Hub DWER Licence Infrastructure' map in Schedule 1
1.2.16	Insertion of condition: The Licensee shall operate the mobile crushing and screening plant in accordance with the conditions of this Licence, following submission of the compliance documents required under condition 4.3.1.		
1.2.17	Insertion of condition: The Licensee shall operate the new TLO in accordance with the conditions of this Licence, following submission of the compliance documents required under condition 4.3.1.		
1.2.18	Insertion of condition: The Licensee shall operate the Caramulla MAR scheme injection and monitoring bores in accordance with the conditions of this Licence, following submission of the compliance documents required under condition 4.3.1.		
2.2.1	Table 2.2.1 has been updated to include the following:		
	Emission point reference on Map of emission points	Description	Source including abatement
	FJB0017 – Caramulla Creek Discharge Point	Discharge to creek line	Water from dewatering at Jimblebar

Condition no.	Proposed amendments								
2.3.1	Table 2.3.1 has been updated to include the Caramulla reinjection bores HCM0026P, HCM0027P, and HCM0028P.								
3.2.1	Table 3.2.1 has been updated to include Caramulla Creek Discharge Point FJB0017 and Caramulla Surplus Water Scheme – HASHI Turkeys Nest FJB0016 as additional emission reference points.								
3.3.1	<p>Table 3.3.1 has been updated to include the following emission reference points:</p> <p><u>Orebody 18</u> HEOP0828M HEOP0838M HEOP0842M</p> <p><u>Caramulla reinjection bores</u> HCM0026P HCM0027P HCM0028P</p> <p><u>Caramulla Surplus Water Scheme</u> HASHI Turkeys Nest FJB0016</p> <p>The monitoring requirement to measure depth to groundwater for the monitoring bores HEOP0843P, HEOP845P, HEOP0847P has been removed from Table 3.3.1.</p> <p>The following injection bore HEOP0842P has been removed from Table 3.3.1 due to bore failure.</p>								
3.5.1	<p>Table 3.5.1 has been updated to include the following bores under the 'Monitoring point reference and location' column for standing water level monitoring requirement:</p> <p>HCM0043M HCM0044M HCM0045M HCM0046M HCM0047M HCM0059M HCM0019M</p> <p>Table 3.5.1 has been updated to include the following bores under the 'Monitoring point reference and location' column for the total suspended solids and other water quality parameters monitoring requirement:</p> <p>HCM0008M HCM0017M</p>								
4.3.1	<p>Insertion of conditions 1.2.16, 1.2.17 and 1.2.18 into Table 4.3.1</p> <table border="1" data-bbox="432 1731 1393 2038"> <thead> <tr> <th data-bbox="432 1731 608 1850">Condition or table (if relevant)</th> <th data-bbox="608 1731 1102 1850">Parameter</th> <th data-bbox="1102 1731 1283 1850">Notification requirement</th> <th data-bbox="1283 1731 1393 1850">Format or form²</th> </tr> </thead> <tbody> <tr> <td data-bbox="432 1850 608 2038">1.2.16</td> <td data-bbox="608 1850 1102 2038"> The Licensee shall submit a compliance document to the CEO, following construction of the crushing and screening mobile plant. The compliance document shall: <ul style="list-style-type: none"> a) certify that the works were constructed in accordance with </td> <td data-bbox="1102 1850 1283 2038">Within 7 days of the completion of construction</td> <td data-bbox="1283 1850 1393 2038">None specified</td> </tr> </tbody> </table>	Condition or table (if relevant)	Parameter	Notification requirement	Format or form ²	1.2.16	The Licensee shall submit a compliance document to the CEO, following construction of the crushing and screening mobile plant. The compliance document shall: <ul style="list-style-type: none"> a) certify that the works were constructed in accordance with 	Within 7 days of the completion of construction	None specified
Condition or table (if relevant)	Parameter	Notification requirement	Format or form ²						
1.2.16	The Licensee shall submit a compliance document to the CEO, following construction of the crushing and screening mobile plant. The compliance document shall: <ul style="list-style-type: none"> a) certify that the works were constructed in accordance with 	Within 7 days of the completion of construction	None specified						

Condition no.	Proposed amendments			
		<p>the documents specified in Table 1.2.6; and</p> <p>b) be signed by a person authorised to represent the Licensee and contain the printed name and position of that person within the company</p>		
	1.2.17	<p>The Licensee shall submit a compliance document to the CEO, following construction of the new TLO. The compliance document shall:</p> <p>a) certify that the works were constructed in accordance with the documents specified in Table 1.2.6; and</p> <p>b) be signed by a person authorised to represent the Licensee and contain the printed name and position of that person within the company</p>	Within 7 days of the completion of construction	None specified
	1.2.18	<p>The Licensee shall submit a compliance document to the CEO, following construction of the Caramulla MAR scheme reinjection and monitoring bores. The compliance document shall:</p> <p>a) certify that the works were constructed in accordance with the documents specified in Table 1.2.6; and</p> <p>b) be signed by a person authorised to represent the Licensee and contain the printed name and position of that person within the company</p>	Within 7 days of the completion of construction	None specified
Schedule 1: Maps	<p>The following maps have been updated:</p> <ul style="list-style-type: none"> • Premises map of prescribed premises boundary and infrastructure • Map of emission points and monitoring locations • Map of Jimblebar Hub DWER Licence New Infrastructure <p>The following maps have been added:</p> <ul style="list-style-type: none"> • Map of Jimblebar Hub DWER Licence Caramulla Creek Wetting Front Limits 			

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2019, *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)*, Perth, Western Australia.
3. DWER 2020a, *Guideline: Risk Assessments*, Perth, Western Australia.
4. DWER 2020b, *Guideline: Environmental Siting*, Perth, Western Australia.

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

Condition	Summary of Licensee's comment	Department's response
-	<p>The Licensee confirmed that the limit for creek discharge should be 35.04 GL/a.</p> <p>The Caramulla Creek discharge scheme has a capacity of 32.85 GL/a, while the remaining creek discharges have a capacity of 2.19 GL/a</p>	No changes were made as a confirmation of the volume of discharge was requested.
3.3 Table 3.3.1, Row 2	<p>Remove the requirement to test water quality (EC and the chemical suite) on the Orebody 18 MAR bores:</p> <ul style="list-style-type: none"> • HMG0056P • HEOP0847P • HEOP0828M • HEOP0838M • HEOP0843P • HEOP0845P <p>Representative water quality for these bores is obtained from the Orebody 18 Turkeys Nest OB18GWLTN1. The requirement to monitor these parameter at the Orebody 18 turkeys nest is outline in Row 5 of Table 3.3.1.</p>	No changes were made. The Delegated Officer has indicated that the removal of these monitoring bores would require a review of the risk assessment and advice from the Department's hydrogeologist, which was not undertaken during the assessment of the current Licence amendment.
3.3 Table 3.3.1, Row 4	<p>Remove the following depth to groundwater monitoring bores for Caramulla:</p> <ul style="list-style-type: none"> • HCM0043M • HCM0044M • HCM0045M • HCM0046M • HCM0047M • HCM0059M <p>The requirement to measure depth to groundwater for these bores is captured in Table 3.5.1.</p>	Removed depth to groundwater monitoring requirements from Table 3.3.1, Row 4.
3.5 Table 3.5.1	<p>Add the following note to bore HCM0046M:</p> <p>¹There are significant accessibility issues to this bore during the wet season. This bore is to be sampled monthly if access is available.</p> <p>HCM0046M has significant access issues in the wet season, as access to the bore requires crossing Caramulla Creek. Rather than experience continual non-compliances to this monitoring requirement during the wet season the Licensee would like to amend the monitoring requirement to "when access to the bore is available".</p>	Note has been added for the monitoring bore HCM0046M in Table 3.5.1.

Condition	Summary of Licensee's comment	Department's response
3.5 Table 3.5.1, Rows 1, 2, and 4	<p>Remove Orebody 18 bore, HCM0058M from the requirement to monitor this bore. Note that the application only called out the removal of depth to groundwater (as noted in the last row of the "Instrument Log" table).</p> <p>The change was requested as this bore is dry and there are sufficient other bores to identify potential impacts. Given the bore is dry it will not be possible to sample water quality.</p>	Removed Orebody 18 bore, HCM0058M from Table 3.5.1 in rows 1, 2, and 4.
3.5 Table 3.5.1, Rows 2, and 3	<p>Replace "Standing water level" with "Depth to groundwater".</p> <p>This change is requested as two bores which are typically dry (HCM0043M and HCM0044M) have recorded a water level in the last round of monitoring which is believed to be rain water. The Licensee are progressing lab analysis to confirm this.</p> <p>The Licensee is currently investigating how this situation can be corrected, however the proposed rewording of the parameter enables the Licensee to confirm the water origin and if it is determined to be rain water, remain in compliance with the licence.</p>	Replaced "Standing water level" with "Depth to groundwater" in Table 3.5.1, Rows 2 and 3.
3.3 Table 3.3.1 and 3.5 Table 3.5.1	Add the following note to Tables 3.3.1 and 3.5.1. On occasions some of these bores are dry so it would be great if we could add the following note to both tables: "Note 2: Water quality monitoring is not required if a bore is dry."	<p>Note has been added, but states:</p> <p><i>"Note 1: In the event that a bore is dry during sampling, water quality monitoring will not be undertaken. After 3 dry events, further investigations will be required."</i></p> <p>The Department has indicated that in event that a bore is dry during sampling, water quality monitoring will not be undertaken. Should a bore remain dry over three consecutive monitoring events, several bores are continuously dry or show a sudden elevation in parameters further investigations will be required (e.g. installation of an additional bore in the vicinity).</p>

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L5415/1988/9	
		Relevant works approval number:		N/A <input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:		None <input type="checkbox"/>
Date application received		7 April 2022		
Applicant and Premises details				
Applicant name/s (full legal name/s)		BHP Iron Ore Pty Ltd		
Premises name		Wheellarra Hill (Jimblebar) Iron Ore Mine		
Premises location		Tenements L52/109, L52/163, I126948, AM70/266 and ML244SA NEWMAN WA 6753 as depicted in schedule 1		
Local Government Authority		Shire of East Pilbara		
Application documents				
HPCM file reference number:		DER2013/000900-1~7		
Key application documents (additional to application form):		Application to Amend the Jimblebar Hub Environmental Licence L5415/1988/09 Licence Amendment Supporting Documentation April 2022 <i>(including information relating to Attachment 1 to 10)</i>		
Scope of application/assessment				

<p>Summary of proposed activities or changes to existing operations.</p>	<p>The Licence amendment is required for the addition of the Caramulla Surplus Water Scheme constructed under works approval W6346/2020/1, currently in time limited operations. Furthermore, the amendment is for the construction, commissioning, and operation of a new Train Load Out (TLO) and associated inert landfills.</p> <p>Category 5</p> <ul style="list-style-type: none"> • construction of a new TLO with no change to throughput <p>Category 6</p> <ul style="list-style-type: none"> • the Caramulla Managed Aquifer Recharge (MAR) scheme adds additional flexibility by increasing MAR capacity by 10.95 GL/a reinjection, and creek discharge by 32.85 GL/a. However, the capacity remains at 47.225 GL/a • addition of reinjection bores HCM0026P, HCM0027P, and HCM0028P • addition of Caramulla MAR monitoring bores; HCM0008M, HCM0017M, HCM0043M, HCM0044M, HCM0045M, HCM0046M, HCM0047M, and HCM0059M • addition of Creek discharge monitoring bore HCM0019M • addition of the Caramulla Creek Discharge point FJB0017 • addition of HASHI Turkeys nest FJB0016 <p>Category 12</p> <ul style="list-style-type: none"> • the design capacity will have an increase of 300,000 tonnes per annum (tpa) that will result in a total capacity of 500,000 tpa • use of a mobile screening plant with a maximum capacity of 1 mtpa at the Jimblebar Rail Loop <p>Category 64</p> <ul style="list-style-type: none"> • the design capacity will have an increase of 10,000 tpa that results in a total capacity of 15,000 tonnes per annual period • construction of two new inert landfills within the Jimblebar Rail Loop to allow for disposal of inert concrete and rail ballast <p>Other</p> <ul style="list-style-type: none"> • removal of monitoring requirements for HMG0058M as the bore is dry and there are sufficient bores in the area • removal of failed OB18MAR injection bore HEOP0842P • expanding prescribed premises boundary to the east to incorporate the Caramulla MAR scheme and associated facilities for the Jimblebar TLO project
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Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
<p>Category 5: Processing or beneficiation of metallic or non-metallic ore: premises on which –</p> <ul style="list-style-type: none"> (a) metallic or non-metallic ore is crushed, ground, milled, or otherwise processed; or (b) tailings from metallic or non-metallic or non-metallic ore are reprocessed; or (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam 	92 million tonnes per annum (mtpa)	Unchanged – Jimblebar remains at 75 mtpa and Orebody 18 at 17 mtpa
<p>Category 6: Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.</p>	47.225 gigalitres (GL) per annual period (12.41 GL reinjected, 2.19 GL discharged to Copper Creek and tributary of Jimblebar Creek, and 32.625 GL discharged to Ophthalmia Dam	Unchanged – the Caramulla Managed Aquifer Recharge (MAR) scheme adds additional flexibility by increasing MAR capacity by 10.95 GL/a, and creek discharge by 32.85 GL/a. Despite this, total surplus water disposal volume remains capped at 47.225 GL/a
<p>Category 12: Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized, or separated.</p>	200,000 tpa	An increase of 300,000 tpa that results in a total capacity of 500,000 tpa
<p>Category 64: Class II or III putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the <i>Landfill Waste Classification and Waster Definitions 1996</i>, is accepted for burial.</p>	15,000 tonnes per annual period	An increase of 10,000 tonnes that results in a total capacity of 25,000 tonnes per annual period

Legislative context and other approvals

<p>Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/></p>
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Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 1126 EPA Report No: 1663 Jimblebar Hub approved under MS 439, 1012, 1021 as well
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No: N/A
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A – as an amendment	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: Expiry date: If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A A valid MS applies for clearing MS 1126
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A Licence not required
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Existing licence	Application reference No: N/A Licence/permit No: GWL158795(10)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: Pilbara Surface Water Area and Pilbara Groundwater Area Type: Proclaimed Groundwater Area/Surface Water Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: North West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Name: Newman Water Reserve Priority: P1 Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

<p>Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004</i>, <i>Environmental Protection (Controlled Waste) Regulations 2004</i>, <i>State Agreement Act xxxx</i>)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p><i>Iron Ore (Mount Newman) Agreement Act 1964</i></p> <p><i>Iron Ore (McCamey's Monster) Authorisation Agreement Act 1972</i></p> <p><i>Environmental Protection (Controlled Waste) Regulations 2004</i></p>
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p> <p>Note:</p> <p>CSS_SITE_ID - 5157</p> <p>TRIM_ID - DEC14359</p> <p>CSS_ID – 76090</p> <p>May be referring to the below incident.</p> <p>Jimblebar - Pyritic Shale Drilling Discharge - 11 July 2018</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Classification: Awaiting classification</p> <p>Date of classification: N/A</p>