



## Application for Licence Amendment

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

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<b>Licence Number</b>	L8232/2008/2
<b>Licence Holder</b>	Pilbara Iron Company (Services) Pty Ltd
<b>ACN</b>	107 210 248
<b>File Number</b>	DER2013/001103
<b>Premises</b>	Level 22, Central Park 152-158 St Georges Terrace PERTH WA 6000
<b>Date of Report</b>	16 December 2021
<b>Decision</b>	Revised licence granted

#### **MANAGER, RESOURCE INDUSTRIES**

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

# Table of Contents

<b>1. Decision summary</b>	<b>1</b>
<b>2. Scope of assessment</b>	<b>1</b>
2.1 Regulatory framework	1
2.2 Application summary	1
2.3 Part IV of the EP Act	3
<b>3. Risk assessment</b>	<b>3</b>
3.1 Source-pathways and receptors	4
3.1.1 Emissions and controls	4
3.1.2 Receptors	6
3.2 Risk ratings	7
<b>4. Consultation</b>	<b>10</b>
<b>5. Conclusion</b>	<b>10</b>
5.1 Summary of amendments	10
<b>References</b>	<b>13</b>
<b>Appendix 1: Summary of Licence Holder’s comments on risk assessment and draft conditions</b>	<b>14</b>
<b>Appendix 2: Application validation summary</b>	<b>20</b>
Table 1: Proposed design or throughput capacity changes	1
Table 2: Design capacities of WWTPs onsite (including new WWTP)	2
Table 3: Target discharge and proposed WWTP discharge characteristics	3
Table 4: Nutrient loading rates	3
Table 5: Licence Holder controls	4
Table 6: Sensitive human and environmental receptors and distance from prescribed activity	6
Table 7. Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation	8
Table 8: Consultation	10
Table 9: Consolidation of licence conditions in this amendment	10
Figure 1: Existing and proposed BS4 WWTP facilities	2

# 1. Decision summary

Licence L8232/2008/2 is held by Pilbara Iron Company (Services) Pty Ltd (Licence Holder) for the Brockman Syncline 4 Mine (the Premises), located at ML4SA and G47/1232, ROCKLEA WA 6751.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the construction and operation of the Premises. As a result of this assessment, Revised Licence L8232/2008/2 has been granted.

The Revised Licence issued as a result of this amendment consolidates and supersedes the existing Licence previously granted in relation to the Premises. The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

## 2. Scope of assessment

### 2.1 Regulatory framework

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

### 2.2 Application summary

On 21 July 2021, the Licence Holder submitted an application to the department to amend Licence L8232/2008/2 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Replacement of the existing Brockman Syncline 4 (BS4) Mine WWTP with a 60 m<sup>3</sup>/day WWTP; and
- Construction of a new 1.3 ha irrigation area adjacent to an existing 0.7 ha irrigation area.

This amendment is limited only to changes to Category 54 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Categories 6, 12, 54, 64 and 73 have been requested by the Licence Holder.

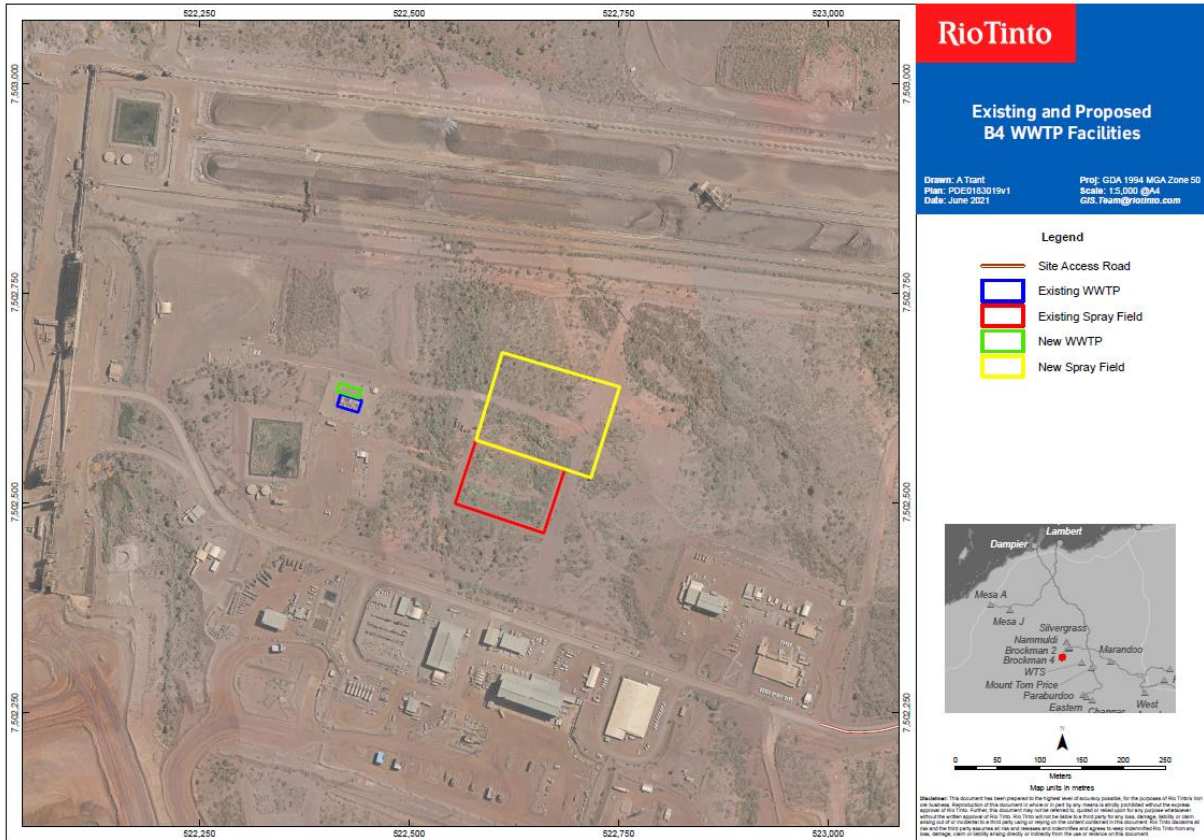
Table 1 below outlines the proposed changes to the existing Licence

**Table 1: Proposed design or throughput capacity changes**

Category	Current design throughput capacity	Proposed design throughput capacity	Description of proposed amendment
54	954 m <sup>3</sup> /day	983 m <sup>3</sup> /day	The Licence Holder is requesting to replace the BS4 Mine WWTP, which has a design capacity of 60 m <sup>3</sup> /day.

The licence holder is proposing to install a Biomax C60K WWTP to replace the BS4 Mine WWTP. The replacement WWTP will be located immediately adjacent to the existing WWTP, with treated effluent discharged to a 2 ha irrigation area (0.7 ha existing irrigation area and a new 1.3 ha irrigation area to be constructed). See Figure 1.

The existing Sequencing Batch Reactor (SBR) will be decommissioned and disposed of onsite following the installation of the new WWTP.



**Figure 1: Existing and proposed BS4 WWTP facilities**

The design capacities of all the WWTPs onsite are shown in Table 2.

**Table 2: Design capacities of WWTPs onsite (including new WWTP)**

WWTP	Design capacity m <sup>3</sup> /day
Brockman 4 WWTP (village)	427
Nammuldi WWTP (village)	496
Brockman 4 Mine WWTP (new WWTP replacing existing WWTP)	60
<b>TOTAL</b>	<b>983</b>

The new WWTP will consist of the following infrastructure:

- Anaerobic chamber - anaerobic treatment;
- Aerobic chamber - aerobic treatment;
- Clarification chamber - sludge settlement and removal;
- Disinfection chamber - contact time with chlorine; and
- Pump out chamber - discharge to spray field.

The treated effluent quality is designed to meet a better quality than the existing WWTP, as shown in Table 3.

**Table 3: Target discharge and proposed WWTP discharge characteristics**

Parameter	Units	Existing SBR WWTP discharge	New Biomax WWTP discharge	Australian Guidelines for Sewerage Systems – Effluent Management
pH	pH units	6 - 9	6.5 – 8.5	-
<i>E.coli</i>	cfu/100 mL	10,000	< 10	< 10,000 cfu/100mL
Biochemical oxygen demand	mg/L	< 30	< 20	20 – 30 mg/L
Total suspended solids	mg/L	< 40	< 30	25 – 40 mg/L
Total Nitrogen	mg/L	< 50	< 10	20 – 50 mg/L
Total Phosphorus	mg/L	< 12	< 2	6 – 12 mg/L
Residual chlorine	mg/L	N/A	> 0.5	-

Treated effluent will be disposed of to a 2 ha irrigation area comprising the existing 0.7 ha irrigation area and a new 1.3 ha irrigation area. These irrigation areas will consist of a series of evenly spaced above ground impulse sprinklers, that allow for 360° rotation. The existing irrigation area consists of six above sprinklers and the expansion will include an additional 15 above ground sprinklers.

Conservative nutrient loading rates have been calculated by the licence holder based on the Australian Guidelines for Sewerage Systems – Effluent Management.

**Table 4: Nutrient loading rates**

Parameter	Units	Loading rates	Nutrient application criteria to control eutrophication risk within the Water Quality Protection Note 22, Irrigation with nutrient-rich wastewater (Department of Water 2008)
Total Nitrogen (using conservative 30 mg/L)	kg/ha/year	328.5	480
Total Phosphorus (using conservative 7.5 mg/L)	kg/ha/year	82.125	120

## 2.3 Part IV of the EP Act

BS4 was approved under Part IV of the EP Act subject to conditions of Ministerial Statement (MS) 717. On 11 March 2015 the Minister for Environmental authorised revisions to the Brockman 4 proposal under the EP Act via MS 1000. MS 1000 superseded MS 717. MS 1000 authorises support facilities including WWTPs.

## 3. Risk assessment

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

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

### 3.1 Source-pathways and receptors

#### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this Amendment Report are detailed in Table 5 below. Table 5 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 5: Licence Holder controls**

Emission	Sources	Potential pathways	Proposed controls
<b>Construction</b>			
Dust	Installation of the new WWTP	Air/windborne	<ul style="list-style-type: none"> <li>Dust suppression (water sprays, water trucks, control of vehicle movements / restricted speeds) during construction; and</li> <li>Rehabilitation of disturbed areas.</li> </ul> <p>SCREENED OUT DUE TO DISTANCE TO SENSITIVE RECEPTORS, NOT FURTHER ASSESSED AS PART OF THE RISK ASSESSMENT.</p>
Noise	Installation of the new WWTP	Air/windborne	SCREENED OUT DUE TO DISTANCE TO SENSITIVE RECEPTORS, NOT FURTHER ASSESSED AS PART OF THE RISK ASSESSMENT.
<b>Commissioning and Operations</b>			
Hydrocarbons and chemicals	Transfers or ruptures of hydrocarbons and chemicals storage compounds	Direct discharge	<ul style="list-style-type: none"> <li>All chemicals will be stored in accordance with the DMIRS Code of Practice - Storage and handling of dangerous goods (2010) and <i>Australian Standard 1940:2004 - The storage and handling of flammable and combustible liquids</i>;</li> <li>During construction, diesel for machinery use will be sourced from existing facilities at Brockman 4;</li> <li>Chemicals used in the treatment process will be either stored in a self-bunded chemical cabinet or an Intermediate bulk container (IBC) supplied by the manufacturer. The chemical cabinet and IBC will be located inside the pump shed enclosure. The IBC chemicals are loaded using a forklift and are placed on a spill containment bund within the enclosure. This unit is complete with signage, a green safety light, a safety shower and an eyewash station and</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			<p>includes a cabinet for Material Safety Data Sheets (MSDS); and</p> <ul style="list-style-type: none"> <li>• Procedures for bringing chemicals to site will be followed including ensuring the relevant MSDS are available.</li> </ul>
Sewage	Rupture of pipes / overtopping of holding tanks	Direct discharge	<ul style="list-style-type: none"> <li>• Any local spillage resulting from pump maintenance work or leaks shall drain into a containment storage;</li> <li>• Spill response equipment provided;</li> <li>• An alarm containing a red flashing light. Sounding of the alarm and lighting up of the red warning light indicates malfunctioning of the air system or indicates a high-water level in the pump out chamber;</li> <li>• Tank levels, alarm shall have the ability to be monitored remotely 24hrs a day 7 days a week via RTIO CITECH system;</li> <li>• Two full days emergency storage built into the capacity of the facility storage tanks;</li> <li>• The concrete tanks are buried below ground level approximately 2 m, leaving approximately 1.5 m above ground level then surrounded by 100 mm thick crush rock and earth bund; and</li> <li>• The facility will be surrounded by a cyclone fence.</li> </ul>
Treated effluent	Disposal to irrigation area	Direct discharge	<ul style="list-style-type: none"> <li>• WWTP system to be designed and commissioned to meet discharge performance criteria. Design criteria of treated effluent to meet relevant guidelines for treated wastewater;</li> <li>• Loading rates at end of commissioning below relevant criteria;</li> <li>• Regular monitoring, inspection and maintenance programmes;</li> <li>• Irrigation spray field to be at least 100 m from nearest major drainage channel;</li> <li>• Spray field sized accordingly to prevent excessive pooling of material;</li> <li>• Sprinklers will be evenly spaced and allow for 360° rotation to ensure adequate distribution and maximum spread over the area to avoid soil</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			saturation and pooling; <ul style="list-style-type: none"> <li>• Irrigation area is fenced with appropriate signage; and</li> <li>• Restricted access to irrigation area.</li> </ul>
		Infiltration to groundwater	SCREENED OUT DUE TO DISTANCE TO GROUNDWATER DEPTH 24 MBGL , NOT FURTHER ASSESSED AS PART OF THE RISK ASSESSMENT.

### 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 6 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 6: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Screened out as there are no nearby human receptors.	
Environmental receptors	Distance from prescribed activity
Native vegetation	Remaining vegetation around the premises
Underlying groundwater	The WWTP is located in an area where the depth to groundwater is approximately 24 m below ground level (bgl)
Surface Water	Boolgeeda Creek located approximately 1.4 km to the proposed WWTP at its nearest point  One minor creek located 250 m west of the proposed spray field



## 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 7.

The Revised Licence L8232/2008/2 that accompanies this Amendment Report authorises emissions associated with the construction and operation of the Premises i.e. Category 54 activities.

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

**Table 7. Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
<b>Commissioning and Operations</b>								
Operations of the WWTP	Hydrocarbons and chemicals	Transfers or ruptures of hydrocarbons and chemicals storage compounds causing soil contamination	<p>Boolgeeda Creek located approximately 1.4 km to the proposed WWTP at its nearest point</p> <p>One minor creek located 250 m west of the proposed spray field</p> <p>Native vegetation around the premises</p>	Refer to Section 3.1	<p>C = Minor</p> <p>L = Rare</p> <p><b>Low Risk</b></p>	Y	<p>Condition 13 Requires mechanisms for treatment of stormwater.</p> <p>Condition 14 Requires hydrocarbon spills management.</p> <p>Condition 15 Requires treatment mechanisms.</p> <p>Condition 16 Requires appropriate use of separator systems.</p>	N/A
	Sewage	Rupture of pipes / overtopping of holding tanks causing soil contamination and eutrophication of surface water	<p>Boolgeeda Creek located approximately 1.4 km to the proposed WWTP at its nearest point</p> <p>One minor creek located 250 m west of the proposed spray field</p> <p>Native vegetation around the premises</p>	Refer to Section 3.1	<p>C = Minor</p> <p>L = Rare</p> <p><b>Low Risk</b></p>	Y	<p>Condition 1, Table 1 Design and construction / installation requirements Requires capacity limit, treated effluent quality criteria, containment storage, spill response equipment, alarms, emergency storage, earthen bund, fencing etc.</p>	N/A

Licence: L8232/2008/2

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
	Treated effluent	Disposal to irrigation area resulting in soil contamination, ponding of wastewater, runoff and weed ingress	<p>Boolgeeda Creek located approximately 1.4 km to the proposed WWTP at its nearest point</p> <p>One minor creek located 250 m west of the proposed spray field</p> <p>Native vegetation around the premises</p>	Refer to Section 3.1	<p>C = Minor L = Unlikely</p> <p><b>Medium Risk</b></p>	Y	<p>Condition 1, Table 1 Design and construction / installation requirements</p> <p>WWTP requires capacity limit, treated effluent quality criteria, containment storage, spill response equipment, alarms, emergency storage, earthen bund, fencing etc.</p> <p>Irrigation area requires separation from drainage channels, appropriate sizing to prevent pooling, evenly spaced 360° rotation sprinklers, fencing, signage and restricted access.</p> <p>Condition 29, Table 4 Emissions and discharges monitoring Requires regular monitoring of treated effluent from the Brockman 4 Mine WWTP</p> <p>Condition 31, Table 5 Annual Environmental Report Requires monitoring results for treated effluent from the Brockman 4 Mine WWTP be reported in the Annual Environmental Report.</p>	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 8 provides a summary of the consultation undertaken by the department.

**Table 8: Consultation**

Consultation method	Comments received	Department response
Department of Health (DoH) advised of proposal (15 September 2021)	DoH provided comments on 11 October 2021	The licence holder must ensure that the WWTP proposal is designed and installed in line with DoH requirements.
Licence Holder was provided with draft amendment on (03 November 2021)	The licence holder provided comments on 26 November 2021 Refer to Appendix 1	The licence holder provided comments on 26 November 2021 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 9 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 9: Consolidation of licence conditions in this amendment**

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Prescribed premise category description and capacities.	Transferred across to the new template.	Updated to the new licence template. Increase in Category 54 capacity.
N/A	Licence history	Licence history	Included.
N/A	Definitions	Definitions	Moved to the back of the Licence, now Table 6.
N/A	Interpretation	Interpretation	No modifications.
N/A	Design and construction / installation requirements	1, Table 1	Inclusion as standard condition for construction of the WWTP.
N/A	Compliance Report	2	Inclusion as standard condition for Compliance Report.
N/A	Compliance Report	3	Inclusion as standard condition for Compliance Report.
N/A	Commissioning Report	4	Inclusion as standard condition for Commissioning.

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Commissioning Report	5	Inclusion as standard condition for Commissioning.
N/A	Commissioning Report	6	Inclusion as standard condition for Commissioning.
N/A	Commissioning Report	7	Inclusion as standard condition for Commissioning.
N/A	Commissioning Report	8	Inclusion as standard condition for Commissioning.
N/A	Commissioning Report	9	Inclusion as standard condition for Commissioning.
1	Mobile Crushing and Screening Plant(s) operational requirements	10	Condition number changed only.
2	Effluent discharged to irrigation sprayfield requirements	11	Condition number changed only.
7	Dewatering discharges	12	Condition number changed only.
8	Stormwater management	13	Condition number changed only.
9	Total Recoverable Hydrocarbons limit	27	Condition number changed only.
10	Spills or leaks	14	Condition number changed only.
11	Spillage recovery	15	Condition number changed only.
12	Prevention of oil-water emulsions	16	Condition number changed only.
13	Putrescible Landfill waste acceptance	17	Inclusion of Uncontaminated Fill as per the <i>Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)</i> .
14	Putrescible Landfill tipping area dimensions	18	Condition number changed only.
15	Putrescible landfill tipping area cover	19	Condition number changed only.
16	Putrescible landfill distances from surface water and groundwater	20	Modified to allow for provision for the construction and operation of subsequent waste dump landfills within the prescribed premises that may be required to support ongoing operations.
17	Putrescible landfill stormwater management	21	Modified to allow for provision for the construction and operation of subsequent waste dump landfills within the prescribed premises that

Existing condition	Condition summary	Revised licence condition	Conversion notes
			may be required to support ongoing operations.
18	Waste dump landfill waste disposal	22	Modified to allow for provision for the construction and operation of subsequent waste dump landfills within the prescribed premises that may be required to support ongoing operations.
19	Waste dump landfill final landform design	23	Modified to allow for provision for the construction and operation of subsequent waste dump landfills within the prescribed premises that may be required to support ongoing operations.
20	Waste dump landfill final landform design	24	Condition number changed only.
21	Waste dump landfill distances from surface water and groundwater at waste dump landfill	25	Condition number changed only.
5	Mine dewatering discharges	26	Condition number changed only.
N/A	Monitoring frequency	28	Inclusion of definition as standard condition.
4, 6 and 22	Emissions and discharges monitoring	29, Table 4	Updated to new condition wording. Updating names of the WWTPs onsite for clarity. Total Recoverable Hydrocarbons monitoring added into table.
23	National Association of Testing Authorities (NATA) accreditation	30	Inclusion as standard condition.
22	AER	31, Table 5	Updated to new condition wording.
25	AACR	32	Updated to new condition wording.
N/A	Complaints	33	Inclusion as standard condition.
N/A	Maintaining books	34	Inclusion as standard condition.
N/A	Maintaining books	35	Inclusion as standard condition.
Schedule 1: Maps	Maps of infrastructure, emissions points and monitoring points	Schedule 1: Maps	Relabeled with Figures and updated where required. Updated Figure 4 to say "current" Waste Dump Landfill.

## 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. Rio Tinto 21/07/2021, RTIO Licence Amendment Application - Brockman Syncline 4: L8232 - Cat 54 WWTP, Perth, Western Australia.
5. Rio Tinto 26/11/2021, RE: APPLICANT NOTIFICATION: NOTICE OF PROPOSED AMENDMENT TO LICENCE L8232/2008/2, Perth, Western Australia.
6. Rio Tinto 10/12/2021, RE: [External] RE: APPLICANT NOTIFICATION: NOTICE OF PROPOSED AMENDMENT TO LICENCE L8232/2008/2, Perth, Western Australia.

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

Condition	Summary of Licence Holder's comment	Department's response
<p>Construction – infrastructure and equipment</p> <p>Condition 1 - Table 1: Design and construction / installation requirements</p> <p>Infrastructure – WWTP</p> <p>Design and construction / installation requirements – Designed to meet the following treated effluent quality: TN loading rate 328.5 kg/ha/yr; and TP loading rate 82.125 kg/ha/yr</p>	<p>The licence holder requests that the TN loading rate and TP loading rate are removed from the design requirements, as follows:</p> <p><i>Designed to meet the following treated effluent quality:</i></p> <p><i>pH 6.5 – 8.5 pH units;</i></p> <p><i>E.coli &lt; 10 cfu/100 mL;</i></p> <p><i>BOD &lt; 20 mg/L;</i></p> <p><i>TSS &lt; 30 mg/L;</i></p> <p><i>TN &lt; 10 mg/L;</i></p> <p><i>TP &lt; 2 mg/L;</i></p> <p><i>Residual chlorine &gt; 0.5 mg/L;</i></p> <p><del><b>TN loading rate 328.5 kg/ha/yr; and</b></del></p> <p><del><b>TP loading rate 82.125 kg/ha/yr</b></del></p> <p>Nutrient loading rates are dependent on both the treated effluent quality as well as the distribution area (irrigation area).</p> <p>As such, the licence holder requests that the TN loading rate (328.5 kg/ha/yr) and TP loading rate (82.125 kg/ha/yr) are removed from Table 1 (Design and construction / installation requirements).</p> <p>The licence holder suggests that the inclusion of the design specifications for treated effluent quality (TN &lt; 10 mg/L; and TP &lt; 2 mg/L) and the irrigation area (total irrigation area of 2 ha) meet the intent of this requirement.</p>	<p>Updated as requested.</p>
<p>Construction – infrastructure and equipment</p>	<p>The licence holder requests that the buried depth of the tanks be updated as follows:</p>	<p>Updated as requested.</p>



Condition	Summary of Licence Holder's comment	Department's response
<p>Condition 1 - Table 1: Design and construction / installation requirements</p> <p>Infrastructure – WWTP</p> <p>Design and construction / installation requirements – The concrete tanks are buried below ground level approximately 2 m, leaving approximately 1.5 m above ground level then surrounded by 100 mm thick crush rock and earth bund</p>	<p><i>The concrete tanks are buried below ground level approximately 2.5 m, leaving approximately 1.0 m above ground level then surrounded by 100 mm thick crush rock and earth bund.</i></p> <p>The design has been further reviewed by site personnel and is requested to allow for improved ergonomics and manual handling safety. For maintainers working on the WWTP, tanks that are buried approximately 2.5 m below ground level, leaving approximately 1 m above ground level aligns to the approximate waist to torso height. Comparatively, tanks that are buried approximately 2 m below ground level, leaving approximately 1.5 m above ground level align with approximate shoulder height. For a maintainer working on the WWTP, the waist to torso height will allow them to work at a safer height ergonomically whilst in the process of maintenance activities associated with the WWTP tanks.</p>	
<p>Construction – infrastructure and equipment Condition 1 - Table 1: Design and construction / installation requirements Infrastructure – Irrigation Area</p>	<p>The licence holder requests that Table 1 specifies <b><i>Brockman 4 Mine WWTP Irrigation Area.</i></b></p> <p>License (L8232/2008) for the Brockman Syncline 4 Iron Ore Mine (the premises) includes the Brockman 4 Village WWTP, Brockman 4 Mine WWTP and Nammuldi Village WWTP and associated irrigation areas. The licence holder requests that Table 1 specifies Brockman 4 Mine WWTP Irrigation Area to delineate that the design and construction / installation requirements are associated with the Brockman 4 Mine WWTP Irrigation Area.</p>	<p>Updated as requested.</p>
<p>Construction <b>and commissioning</b> – infrastructure and equipment</p>	<p>The licence holder requests the inclusion of commissioning in L8232/2008, including that the licence specifies <b><i>Construction and Commissioning – infrastructure and equipment</i></b> and additional conditions for commissioning following construction (Condition 1 - Condition 3), as follows:</p> <p><b><i>The licence holder shall provide to the CEO, a commissioning report that includes the effluent water quality results during commissioning with comparison against previous monitoring results and relevant guidelines.</i></b></p> <p>Initially, the WWTP will be filled with water to ensure that wastewater is diluted. The biomass of the bacteria and other microorganisms which are responsible for removing organic content (specifically nitrogen) and reducing biochemical oxygen demand in wastewater will develop naturally during commissioning. As such, treated wastewater quality during commissioning is expected to be highly variable and may occasionally</p>	<p>Updated as requested.</p>

Condition	Summary of Licence Holder's comment	Department's response
	<p>exceed guidelines. The licence holder requests a commissioning period, consistent with the existing conditions of other Licences held by the licence holder, to allow for expected variability in treated wastewater quality, trending towards stabilisation during 'commissioning'.</p> <p>A six-month commissioning period is requested to allow time for sufficient monitoring data to be obtained to ensure that the WWTP is performing as expected and treated wastewater quality is consistently meeting guidelines during 'operation' (with comparison of monitoring results against previous monitoring results and relevant guidelines, required by Condition 25 of the amended Licence (L8232/2008)).</p>	
<p>Management of waste dump landfill</p> <p>Condition 16 - Condition 19</p>	<p>The licence holder requests amendments to Condition 16 – Condition 19 to reflect outcome-based conditions which allow for the ongoing operation of the existing waste dump landfill and subsequent waste dump landfills for the ongoing disposal of waste at the premises.</p> <p>The licence holder thanks DWER for amending Condition 13 (Management of putrescible landfill) to include Uncontaminated Fill as per the Landfill Waste Classification and Waste Definitions 1996 (as amended 2019) and, given the opportunity to amend conditions relating to the management of landfills, requests further amendments to Condition 16 - Condition 19, consistent with the existing conditions of other Licences held by the licence holder. Specifically, the licence holder requests outcome-based conditions which allow for the ongoing operation of the existing waste dump landfill and subsequent waste dump landfill facilities for the ongoing disposal of up to 3,375 tonnes of wastes per annual period at the premises without requiring further amendments to the Licence (subject to the inclusion of appropriate conditions), as follows:</p> <p>Condition 16. Waste acceptance criteria. Waste dump landfills will only accept the following types of waste (as defined in the Landfill Definitions):</p> <ul style="list-style-type: none"> <li>• Inert Waste Type 1;</li> <li>• Inert Waste Type 2; and</li> <li>• Wooden pallets and wooden packaging.</li> </ul> <p>Condition 17. Location criteria. Waste dump landfills will be located to ensure that there is no waste within:</p> <ul style="list-style-type: none"> <li>• 100 m from any surface water body; and</li> </ul>	<p>Updated as requested to allow provision for the construction and operation of subsequent waste dump landfills within the prescribed premises that may be required to support ongoing operations.</p>

Condition	Summary of Licence Holder's comment	Department's response
	<ul style="list-style-type: none"> <li>• 3 m (vertical distance) of the highest seasonal ground water level.</li> </ul> Condition 18. Management criteria: <ul style="list-style-type: none"> <li>• Waste in the tipping area will be covered with a dense (at least 200 millimetres), inert and incombustible material at final landform design; and</li> <li>• Surface water on waste dump landfill sites will be managed such that water that has come into contact with waste is retained on the site.</li> </ul>	
Monitoring Condition 23 - Table 2: Emissions and discharges monitoring Averaging period - Daily	The licence holder requests that Table 2 specifies a Monthly averaging period for volumetric flow rate. The volumetric flow rate for the existing WWTPs is monitored continuously and averaged monthly for reporting purposes. This allows for the information presented in the Annual Environmental Report to be concise with only twelve reportable volumes (rather than 365 reportable volumes as would be required by daily averaging). The licence holder requests that the averaging period for the volumetric flow rate is amended from 'Daily' to 'Monthly', consistent with existing monitoring and reporting.	Updated as requested.
Monitoring Condition 24 - The licence holder must ensure that all non-continuous sampling and analysis undertaken pursuant to condition 23 is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) for the methods of sampling and analysis relevant to the corresponding relevant parameter.	The licence holder requests that Condition 24 is updated as follows: <i>The licence holder must ensure that all <del>non-continuous sampling and analysis undertaken pursuant to condition 23</del> is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) for the methods of sampling and analysis relevant to the corresponding relevant parameter.</i> The licence holder will undertake all sampling and analysis as required by Condition 23. However, the licence holder notes that site-based personnel conduct the sampling, and these personnel are not holders of a current accreditation from the National Association of Testing Authorities (NATA). As such, the licence holder requests that the requirement for sampling to be undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) is removed from Condition 24.	Updated as requested.
Records and reporting Condition 25 - The licence	<i>The licence holder requests that Condition 25 specifies the requirement for the submission of an Annual Environmental Report <b>by 30 April each year</b></i>	Updated as requested.

Condition	Summary of Licence Holder's comment	Department's response
<p>holder must submit to the CEO no later than 120 days after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 3, and which provides information in accordance with the corresponding requirement set out in Table 3.</p>	<p><i>for the annual period 1 January the previous year and ending on 31 December, for the conditions listed in Table 3, and which provides information in accordance with the corresponding requirement set out in Table 3.</i></p> <p>The updated wording provided in Condition 25 is inconsistent with the existing conditions of other Licences held by the licence holder. The licence holder notes that DWER have provided a summary of the proposed amendments that have been incorporated into Licence L8232/2008 within Section 5.1 of the Amendment Report and specifically included (within Table 9: Consolidation of licence conditions in this amendment) that Condition 25 is updated to new condition wording. The licence holder also notes that the intent of the condition is not changed by the new condition wording. However, the licence holder expects some complexity with 120 days (rather than the specified date of 30 April) in years in which the intercalary day is added to the end of February, requiring reporting by 29 April and as such, prefers the specified dates, consistent with the existing conditions of other Licences held by the licence holder.</p>	
<p>Records and reporting</p> <p>Condition 26 - The licence holder must:</p> <p>(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and</p> <p>(b) prepare and submit to the CEO by no later than 120 days after the end of that annual period an Annual Audit Compliance Report in the approved form.</p>	<p>The licence holder requests that Condition 26 specifies the requirement for the submission of an Annual Audit Compliance Report by no later than <b>30 April each year</b> for the annual period <b>1 January the previous year and ending on 31 December,</b></p> <p>The updated wording provided in Condition 26 is inconsistent with the existing conditions of other Licences held by the licence holder.</p> <p>As above, the licence holder notes that DWER have provided a summary of the proposed amendments that have been incorporated into Licence L8232/2008 within Section 5.1 of the Amendment Report and specifically included (within Table 9: Consolidation of licence conditions in this amendment) that Condition 26 is updated to new condition wording. The licence holder also notes that the intent of the condition is not changed by the new condition wording. However, the licence holder expects some complexity with 120 days (rather than the specified date of 30 April) in years in which the intercalary day is added to the end of February, requiring reporting by 29 April and as such, prefers the specified dates, consistent with the existing conditions of other Licences held by the licence holder.</p>	<p>Updated as requested.</p>
<p>Schedule 1: Maps</p> <p>Figure 2: Existing and proposed WWTPs and</p>	<p>The Licence Holder requests that Figure 2 is replaced with an updated Figure (attached) and that Figure 2 is renamed <b>Brockman Syncline 4 Mine WWTP and Irrigation Area.</b></p>	<p>Updated as requested.</p>

Licence: L8232/2008/2

Condition	Summary of Licence Holder's comment	Department's response
sprayfield areas	<p>Consistent with the infrastructure and equipment included in Condition 1 of Licence L8232/2008, the licence holder requests that Figure 2 is replaced with an updated Figure (attached) that includes only the new WWTP (since the existing WWTP is planned to be decommissioned) and defines the new 1.3 ha irrigation area and total irrigation area of 2 ha (since both the existing and new irrigation areas will be used).</p> <p>Consistent with the naming convention throughout the Licence, the licence holder also requests that Figure 2 is renamed Brockman Syncline 4 Mine WWTP and Irrigation Area (since the figure includes only the new Brockman 4 Mine WWTP and associated irrigation area, not all existing WWTPs and irrigation areas).</p>	

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY			
<b>Application type</b>			
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L8232/2008/2
		Relevant works approval number:	N/A <input checked="" type="checkbox"/>
Date application received		21/07/2021	
<b>Applicant and Premises details</b>			
Applicant name/s (full legal name/s)		Hamersley Iron Pty Limited	
Premises name		Brockman Syncline 4	
Premises location		State Agreement Mineral Lease (ML) 4SA	
Local Government Authority		Shire of Ashburton	
<b>Application documents</b>			
HPCM file reference number:		DWERDT481102	
Key application documents (additional to application form):		Replacement Waste Water Treatment Plant – supporting documentation	
<b>Scope of application/assessment</b>			
Summary of proposed activities or changes to existing operations.		<i>Licence amendment</i> Operation of WWTP - increase WWTP discharge capacity from 954 m <sup>3</sup> /day to 983 m <sup>3</sup> /day - increase spay filed area from 0.7 ha to 2 ha - clearing 0.5 ha	
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)	
Category 54: Sewage facility	954 m <sup>3</sup> /day	983 m <sup>3</sup> /day	
<b>Legislative context and other approvals</b>			
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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>	
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: 1000 EPA Report No: 1531	
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Reference No: N/A	

Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Other evidence <input checked="" type="checkbox"/> Lease N° 4SA to Hamersley Iron Pty LTD Expiry: <i>not stated</i>
Has the applicant obtained all relevant planning approvals?	N/A <input checked="" type="checkbox"/>	State Agreement Act
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Clearing covered under MS 1000
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
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Licence / permit not required.
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 type="checkbox"/>	Name: Pilbara Type: Proclaimed Groundwater Area and Surface Water Area Has Regulatory Services (Water) been consulted? No <input checked="" type="checkbox"/> Regional office: North West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Iron Ore (Hamersley Range) Agreement Act 1963
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A