



## Application for Licence Amendment

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

---

<b>Licence Number</b>	L8621/2011/1
<b>Licence Holder</b>	Roy Hill Iron Ore Pty Ltd
<b>ACN</b>	123 722 038
<b>File Number</b>	2011/009784-1~16
<b>Premises</b>	Roy Hill Iron Ore Mine M46/518 and M46/519 NEWMAN WA 6753 As depicted in Schedule 1 of this licence
<b>Date of Report</b>	1 February 2023
<b>Decision</b>	Revised licence granted

**Alana Kidd**  
**MANAGER, RESOURCE INDUSTRIES**  
**REGULATORY SERVICES**  
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	2
<b>3. Risk assessment</b>	<b>3</b>
3.1 Source-pathways and receptors	3
3.1.1 Emissions and controls	3
3.1.2 Receptors	6
3.2 Risk ratings	8
<b>4. Consultation</b>	<b>12</b>
<b>5. Conclusion</b>	<b>12</b>
5.1 Summary of amendments	12
<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>17</b>
Table 1: Proposed changes to existing Licence	1
Table 2: Licence Holder controls	3
Table 3: Sensitive human and environmental receptors and distance from prescribed activity	6
Table 4. Risk assessment of potential emissions and discharges from the Premises during construction and operation	9
Table 5: Consultation	12
Table 6: Summary of licence amendments	12

# 1. Decision summary

Licence L8621/2011/1 is held by Roy Hill Iron Ore Pty Ltd (Licence Holder) for the Roy Hill Iron Ore Mine (the Premises), located at M46/518 and M46/519, Newman.

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 L8621/2011/1 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.

## 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 27 September 2022, the Licence Holder submitted an application to the department to amend Licence L8621/2011/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act).

This amendment is limited only to changes to Category 54, 57, 64, and 85B activities from the existing Licence. No changes to the aspects of the existing Licence relating to Category 5, 6, 12, 52, and 73 have been requested by the Licence Holder. Table 1 below outlines the proposed changes to the existing Licence.

**Table 1: Proposed changes to existing Licence**

Description of proposed amendment	Current throughput capacity	Proposed throughput capacity
<b>Category 54</b>		
Add a 40 cubic metres (m <sup>3</sup> ) WWTP 2 to the Licence for the Mine Accommodation Village (additional units) Increase total capacity throughput limits to 633 m <sup>3</sup> per day	593 m <sup>3</sup> per day	633 m <sup>3</sup> per day
<b>Category 57</b>		
Increase used tyre storage limits from 5,000 to 6,000 tyres Add three new used tyre storage locations to Licence	No more than 5,000 tyres	No more than 6,000 tyres
<b>Category 64</b>		
Construct and operate extension of landfill 2 (landfill 3) 13.69 hectares (ha) trench area To allow in-pit disposal in additional pit locations Burial of additional inert waster at existing (four in total) and proposed (11 in total) in-pit disposal locations Increase inert type 2 disposal limits from 5,000 tonnes to 12,500 tonnes	8,000 tonnes per annual period (tpa)	17,3000 tpa (increase inert type 2 disposal from 5,000 to 12,500 tonnes and clean fill, inert type 1 and putrescible wastes disposal from 3,000 to 4,000

Description of proposed amendment	Current throughput capacity	Proposed throughput capacity
Increase clean fill, inert type 1 and putrescible waste disposal limits from 3,000 tonnes to 4,800 tonnes Disposal of concrete (no steel) and bitumen Update current licence wording regarding windblown waste		tonnes)
<b>Category 85B</b>		
Upgrade the blended water plant (Brackish Water Reserve Osmosis Plant) from 40MLD (15 gicalitres (GL) per day) to 80MLD (30 GL per day)	15 GL per year	30 GL per year
<b>Other</b>		
Add additional Bioremediation facility location to Schedule 1 Add use of TSF decant wastewater for dust suppression to the Licence	N/A	N/A

## 2.3 Part IV of the EP Act

The original proposal was referred to the EPA and approved as two separate proposals, Stages 1 and 2. The respective implementation agreements are set out in Ministerial Statements 824 and 829 (as amended) and changes to conditions recorded in Ministerial Statements 979 and 980.

The proposed changes to the original proposal were required to achieve an ore blend that satisfied customer demand. This involved multiple pits operating at once to produce a consistent quality of ore. In turn, there was a requirement to increase dewatering to maintain dry mining conditions. Mining multiple pits at once also created the need for additional above ground waste rock dumps due to reduced availability of pit voids for waste rock disposal during mine operation. Additional ground disturbance was required to accommodate the above ground waste rock dumps, aquifer injection infrastructure to dispose of mine dewater and pit abandonment bunds for mine closure.

The EPA released the Revised Proposal for the Roy Hill Iron Ore Mine Report on 20 October 2021. Ministerial Statement 1189 was issued on 19 May 2022. Ministerial Statements 824, 829, 979 and 980 are repealed on the issuing of Ministerial Statement 1189. A summary of the conditions relevant to Part V of the EP Act assessment is included below:

- Excess water disposal by aquifer injection and recharge basins on Ministerial Statement 1189 is 508 GL until 2032;
- Prior to aquifer injection and mine pit dewatering exceeding the extent of the original authorised proposal, the proponent shall revise the *Water Management Plan – Mine OPPLN- 00300 Rev 1* and *Roy Hill iron Ore Vegetation Management Plan OP-PLN-00344 Rev 1*, and this shall be confirmed by EPAS;
- Increase the injection limit up to 50,000 mg/L TDS in the SWIB;
- The Management Plans shall specify trigger criteria to ensure that inland waters and subterranean fauna impacts are avoided. This includes water quality and standing water levels triggers; and
- Evaporation Pond Design and Management Plan for the storage of mine dewatering water overtopping, seepage, construction materials characteristics and total capacity/freeboards requirements.

### 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 2020a).

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 Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 2: Licence Holder controls**

Emission	Sources	Potential pathways	Proposed controls
<b>Construction</b>			
<b>Categories 54, 57, 64, and 85B</b>			
Dust	Construction of WWTP units 40m <sup>3</sup> and increase sprayfield size Construction of Landfill 3 site and in-pit disposal areas (11 in total) Construction of used tyre storage locations (3 areas) Expansion of the water desalination plant Construction of bioremediation facility Vehicle and mobile equipment movements	Air / windborne pathway	<ul style="list-style-type: none"> <li>control access to the mine site is restricted</li> <li>access to the proposed Landfill 3 is restricted to authorised personnel only</li> <li>dust suppression available during the excavation and back filling of each tipping trench.</li> <li>visible inspections to detect dust emissions from the landfill</li> <li>use of a water truck for dust suppression on roads and during clearing activities for the construction of the proposed infrastructure.</li> </ul>
<b>Operation</b>			
<b>Category 54</b>			
Wastewater and by-products Treated	Operation of WWTP and sprayfield area	Direct discharge Contaminates in wastewater via spills impacting surrounding	<ul style="list-style-type: none"> <li>control as per conditions under the existing Licence L8621/2011/1</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
effluent		land, surface water and groundwater	
<b>Category 64</b>			
Contaminated water	Operation of Landfill 3 site and in-pit disposal areas (11 in total)	Leaching / soil infiltration causing contamination to soil, surface water and groundwater Cause ecosystem disruption, impact vegetation health	<ul style="list-style-type: none"> <li>controls as per conditions under the existing Licence L8621/2011/1</li> <li>installation of monitoring bores and to continue with groundwater monitoring as per <i>RHIO Mine Monitoring Manual and Water Management Plan</i></li> <li>vegetation health monitoring is under MS 1189 requirements</li> <li>potential impacts are managed with the <i>Water Management Plan</i> and <i>Vegetation Management Plan</i></li> </ul>
Contaminated stormwater Waste and by-products		Direct discharge / run-off to land, surface water and vegetation. Contamination to soil and surface water Cause ecosystem disruption, impact vegetation health	<ul style="list-style-type: none"> <li>controls as per conditions under the existing Licence L8621/2011/1</li> <li>inert type 2 wastes to be placed / dumped on a levelled surface</li> <li>surface water diversion structures to be maintained and retain water within designated landfill area</li> <li>potential impacts are managed with the <i>Water Management Plan</i> and <i>Vegetation Management Plan</i></li> </ul>
<b>Category 85B</b>			
Contaminated water Waste and by-products	Operation of Water Desalination Plant	Direct discharge / run-off to land, surface water and vegetation	<ul style="list-style-type: none"> <li>controls as per conditions under the existing Licence L8621/2011/1</li> <li>controls for brine containment include: <ul style="list-style-type: none"> <li>daily inspections of pipes and storage</li> <li>flow and pressure monitoring integrated to the control system for pipework and measurement systems to detect any failures</li> <li>flow differential system installed on pipework to detect leaks for the Remote managed aquifer recharge North (RMARN)</li> <li>level transmitters installed to the brine storage tank, wastewater pond at the Central Transfer Ponds, and the RMARN Distribution Pond to monitor levels and prevent overflow</li> </ul> </li> <li>brine to be stored at the Desalination Plant, Central Transfer Ponds (blended quality of brine to be expected to by approximately 60,000 mg/L TDS), 100 ML RMARN Distribution Pond ((blended quality of brine to be expected to by approximately 50,000 mg/L TDS for reinjection)</li> </ul>

Licence: L8621/2011/1

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> <li>saline reject water (brine) will be reinjected into the deep aquifer at the Project reinjection borefields (RMARN) in accordance with the reinjection water quality limits</li> <li>brine will be piped to a 1.15 ML brine storage tank located at the new desalination plant</li> </ul>
<b>Other</b>			
Contaminated soil Contaminated stormwater	Operation of Bioremediation Facility	Direct discharge to land, surface water and vegetation	<ul style="list-style-type: none"> <li>operate in accordance with <i>RHIO Bioremediation Facility – Operating Guideline</i></li> </ul>
Contaminated water		Leaching / soil infiltration causing contamination to soil, surface water and groundwater	

### 3.1.2 Receptors

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

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

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

Human receptors	Distance from prescribed activity
Roy Hill Homestead	Approximately 0.7 kilometres (km) from the prescribed premises boundary, but 18 km from the operational area.
Environmental receptors	Distance from prescribed activity
Threatened / Priority Ecological Communities (TEC/PEC) <i>Fortescue Marsh (Marsh Land System) P1</i>	Approximately 0.5 km from the prescribed premises boundary.
Threatened and Priority Fauna <ol style="list-style-type: none"> <li>Greater Bilby (<i>Macrotis lagotis</i>) Vulnerable under the <i>Biodiversity Conservation Act 2016</i> (BC Act) and <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)</li> <li>Northern Quoll (<i>Dasyurus hallucatus</i>) Endangered under the BC Act and EPBC Act</li> <li>Ghost Bat (<i>Macroderma gigas</i>) Vulnerable under the BC Act and EPBC Act</li> <li>Pilbara Olive Python (<i>Liasis olivaceus barroni</i>) Vulnerable under the BC Act and EPBC Act</li> <li>Pilbara Flatheaded Blind Snake (<i>Anilius ganei</i>) P1 under WA Department of Biodiversity, Conservation, and Attractions (DBCA) Priority fauna list</li> <li>Spectacled Hare-wallaby (<i>Lagorchestes conspicillatus leichardti</i>) P4 under WA DBCA Priority fauna list</li> <li>Brush-tailed Possum (<i>Dasyurus blythi</i>) P4 under WA DBCA Priority fauna list</li> </ol>	All fauna species are recorded within the prescribed premises boundary.
Priority Flora <ol style="list-style-type: none"> <li><i>Eremophila Pilosa</i> P1</li> <li><i>Stemodia</i> sp Battle Hill P1</li> <li><i>Rhagodia</i> sp Hamersley (M. Trudgen 17794) P3</li> <li><i>Goodenia nuda</i> P4</li> <li><i>Eremophila youngii</i> subsp <i>lepidota</i> P4</li> </ol>	All flora species are recorded within the prescribed premises boundary.
Aboriginal and other heritage sites	Section 18 consent coverage under the <i>Aboriginal Heritage Act 1972</i> .



Environmental receptors	Distance from prescribed activity
<p>Proclaimed areas – <i>Rights in Water and Irrigation Act 1914 (RiWI Act)</i>  <i>Pilbara Surface Water Area &amp; Pilbara Groundwater Area</i></p> <p>Several ephemeral creeks and drainage lines.</p>	<p>Within the prescribed premises boundary.</p> <p>Nearby piezometer RHPZ0138 has recorded groundwater depth as 45.09 – 53.52 metres below ground level (mbgl) near the Village WWTP upgrades.</p>
<p><i>10 Mile Bore</i> (stock water bore)</p>	<p>Approximately 1.6 km to 20.1 km away from the proposed infrastructure of this amendment.</p>

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

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Licence L8621/2011/1 that accompanies this Amendment Report authorises emissions associated with the construction and operation of the 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 Premises during construction 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 emissions	Potential pathways and impact	Receptors	Licence Holder's controls				
<b>Construction</b>								
<b>Categories 54, 57, 64 and 85B</b>								
Construction of WWTP units 40m <sup>3</sup> and increase sprayfield size Construction of Landfill 3 site and in-pit disposal areas (11 in total) Construction of used tyre storage locations (3 areas) Expansion of the water desalination plant Construction of bioremediation facility Vehicle and mobile equipment movements	Dust	Air / windborne pathway Smother vegetation impacting photosynthesis	Native vegetation, particularly priority flora	Refer to section 3.1	C = Slight L = Possible <b>Low Risk</b>	Yes	Conditions 1, 2, 3,4, 5, 6, 8, 44, 45, 46, and 47	N/A
<b>Operation</b>								
<b>Category 54</b>								
Operation of WWTP and sprayfield area	Wastewater and by products Treated effluent	Direct discharge Contaminates in wastewater via spills impacting surrounding land, surface water and groundwater	Soil Surface water Groundwater Fauna	Refer to section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Yes	Conditions 1, 2, 3, 4, 7, 9, 21, 25, 27, 28, 29, 30, 33, 44, 45, 46, and 47	N/A
<b>Category 64</b>								

Licence: L8621/2011/1

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

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 emissions	Potential pathways and impact	Receptors	Licence Holder's controls				
Operation of Landfill 3 site and in-pit disposal areas (11 in total)	Contaminated water	Leaching / soil infiltration causing contamination to soil, surface water and groundwater  Cause ecosystem disruption, impact vegetation health	Soil Surface water Groundwater  Native vegetation, particularly priority flora  Stock water bore, 1.6 km from nearest in-pit disposal  <i>Fortescue Marsh (Marsh Land System) P1</i>	Refer to section 3.1	C = Minor L = Likely <b>Medium Risk</b>	Yes	Conditions 1, 2, 3, 4, 5, 6, 8, 34, 44, 45, 46, and 47	N/A
	Contaminated stormwater  Waste and by-products	Direct discharge / run-off to land, surface water and vegetation.  Contamination to soil and surface water  Cause ecosystem disruption, impact vegetation health	Soil Surface water  Native vegetation, particularly priority flora  Fauna, particularly threatened and priority fauna	Refer to section 3.1	C = Minor L = Possible <b>Medium Risk</b>	Yes	Conditions 1, 2, 3, 4, 5, 6, 8, 34, 44, 45, 46, and 47	N/A
<b>Category 85B</b>								
Operation of Water Desalination Plant	Contaminated water  Waste and by-products	Direct discharge / run-off to land, surface water and vegetation.  Cause ecosystem	Soil Surface water  Native vegetation,	Refer to section 3.1	C = Slight L = Possible <b>Low Risk</b>	Yes	Conditions 10, 11, 12, 16, 44, and 45	N/A

Licence: L8621/2011/1

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

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 emissions	Potential pathways and impact	Receptors	Licence Holder's controls				
		disruption, impact vegetation health	particularly priority flora  Fauna, particularly threatened and priority fauna					
<b>Other</b>								
Operation of Bioremediation Facility	Contaminated soil  Contaminated stormwater	Direct discharge to land, surface water and vegetation.  Cause ecosystem disruption, impact vegetation health	Soil Surface water  Native vegetation, particularly priority flora	Refer to section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	N/A	No controls under the Licence as operated in accordance with <i>RHIO Bioremediation Facility – Operating Guideline</i> and does not trigger a Schedule 1 category under the <i>Environmental Protection Regulations 1987</i>	N/A
	Contaminated water	Leaching / soil infiltration causing contamination to soil, surface water and groundwater  Cause ecosystem disruption, impact vegetation health	Soil Surface water Groundwater  Native vegetation, particularly priority flora	Refer to section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	N/A		N/A

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

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

## 4. Consultation

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

**Table 5: Consultation**

Consultation method	Comments received	Department response
Local Government Authority advised of amendment on 2 December 2022	No comments received	-
Department of Mines, Industry Regulation and Safety (DMIRS) advised of amendment on 2 December 2022	No comments received	-
Licence Holder was provided with draft amendment on 6 January 2023	The applicant's comments are provided in Appendix 1.	The Department's comments are provided 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
-	Administrative including grammatical and formatting changes through the Licence.
-	Updated assessed design capacity for the following categories: <ul style="list-style-type: none"> <li>Category 54 – 593 to 633 cubic metres per day</li> <li>Category 57 – No more than 5,000 to 6,000 tyres</li> <li>Category 64 – 8,000 to 17,300 tonnes per annual period</li> <li>Category 85B – 15 to 30 GL per year</li> </ul>
-	Updated the Licence History table to include the current amendments.
Condition 2, Table 1	Updated table 1 to amend quantity limits and specifications related to the categories that require amendments.
Condition 4, Table 2	Updated table 2 to amend quantity limits and specifications related to the categories that require amendments.
Condition 6, Table 3	Updated table 3 to include the terms concrete (no steel) and bitumen as inert waste type 2 material.
Condition 13, Table 6	Update table 6 to amend several figure numbers.
Condition 16, Table 7	Updated design capacity limit for category 85B from 15 to 30 G/L per year.
Condition 21, Table 10	Updated table 10 to include WWTP 2 and the use of Tailings Storage Facility decant water for dust suppression.
Condition 33, Table 16	Updated table 16 to include the WWTP 2.
Schedule 1 Maps Figure 1	Updated with a new figure and is the northern section of the prescribed premises.
Schedule 1 Maps	New figure that is the southern section of the prescribed premises.

Condition no.	Proposed amendments
Figure 2	
Schedule 1 Map Figure heading	Updated heading <i>Landfill Area Maps</i> to <i>Landfill Area and In-pit Tyre Disposal Maps</i>
Schedule 1 Maps Figures 3 and 4	Renumbered figure numbers and removed subtitles above the figures.
Schedule 1 Map Figure 5	Removed figure as the landfill area is no longer in operation.
Schedule 6 to 8	Renumbered figure numbers and removed subtitles above the figures.
Schedule 1 Map Figure 9	Included new figure for the proposed and existing in-pit disposal locations within the prescribed premises boundary.
Schedule 1 Maps Figures 10 to 15	Renumbered figure numbers and removed subtitles above the figures.
Schedule 2 Maps 16 to 30	Renumbered figure numbers and removed subtitles above the figures.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020a, *Guideline: Risk Assessments*, Perth, Western Australia.
3. DWER 2020b, *Guideline: Environmental Siting*, 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
<b>Licence</b>		
4, Table 2	<p>Remove reference to "Landfill" and "Delta 1 Pit Landfill". These landfills/storage areas have been decommissioned and are no longer used.</p> <p>Delta 1 landfill is now located under a waste rock dump.</p> <p>We would ask that this change be captured in the Licence history table.</p>	Updated.
36, Table 18	<p>Roy Hill requests that field readings be acceptable for monitoring the parameters:</p> <ul style="list-style-type: none"> <li>• Electrical Conductivity, and</li> <li>• Oxidation Reduction Potential</li> </ul> <p>Electrical conductivity measurements in field would align with the requirements of Table 14, while in field measurements of ORP would align with the note (calibration using Zobell's solution). Additionally, due to the holding time of ORP (6 hours), these results are rarely to be within the NATA accredited timeframes.</p> <p>Roy Hill also notes "electrical conductivity" has been spelt as "electrical conductively" in two places of the document.</p>	Updated.
36, Table 18	<p>Roy Hill noted in the 2021 annual environment report that bore RHPZ0352 had been buried by a waste dump in June 2021. It was subsequently replaced by nearby bore RHPZ0393.</p> <p>Replace RHPZ0352 with RHPZ0393.</p>	Updated.
36, Table 18	<p>Roy Hill notes that monitoring in rows 5 and 6 of Table 18 appear to be duplication. The duplication creates uncertainty regarding the different monitoring - monitoring of bores adjacent to injection bores is required</p>	Updated.

Licence: L8621/2011/1



Condition	Summary of Licence Holder's comment	Department's response
	<p>quarterly or only quarterly when injection occurs.</p> <p>Roy Hill requests "and Remote MAR Regional Monitoring Bores" from Row 6 be added to the wording in Row 5, and the frequency "Quarterly, when injection occurs during the Quarter" from Row 6 be used as the frequency for Row 5.</p> <p>Row 6 could then be removed.</p>	
38, Table 20	<p>Roy Hill notes that mgCACO3 may be an administrative error and is already covered under Total Hardness?</p> <p>Furthermore, Roy Hill also notes that Ca and Cl has been repeated.</p>	Updated.
Figure 1	Provided a clearer Figure 1.	Department requested this.
Figure 2	Provided a clearer Figure 2.	Department requested this.
Figure 5	As the "Landfill" site is no longer operational, Figure 5: Mine Landfill area can be removed.	Figure removed and subsequent figures have been renumbered.
Figure 5 (previously Figure 6)	Provided an updated figure excluding the Bioremediation area.	Department requested this.
Figure 25	Provided a clearer Figure 25.	Department requested this.
<b>Amendment Report</b>		
Table 2 – applicant to provide additional dust controls	Roy Hill can confirm that a water truck will be present on-site to apply dust suppression on roads and during clearing activities for the construction of the proposed infrastructure.	Department requested additional dust controls, which has been provided by the applicant.
Table 2 – applicant to indicate where the brine will discharge to, its quality and proposed controls and proximity to receptors	<p>Saline reject water (brine) will be reinjected into the deep aquifer at Project reinjection borefields (RMARN) in line with reinjection water quality limits.</p> <p>Brine will be piped to a 1.15ML brine storage tank located at the new desalination plant.</p>	Department requested additional information regarding brine, which has been provided by the applicant.
Table 4 - applicant to indicate where the brine will be stored, discharge to, its quality and	Associated pumps and pipework will deliver the brine from the desalination plant to a wastewater pond at the existing Central Transfer Ponds (CTPs). The quality of the brine is expected to be circa 60,000	Department requested additional information regarding brine, which has been provided by the applicant.

Condition	Summary of Licence Holder's comment	Department's response
<p>proposed controls and proximity to receptors</p>	<p>mg/L TDS</p> <p>Brine at the CTPs will then be pumped to the 100ML remote managed aquifer recharge North (RMARN) Distribution Pond and blended to a quality of circa 50,000 mg/L TDS for reinjection.</p> <p>Brine storage including at the desalination plant (Water treatment plant) is not in proximity to any environmental receptors (i.e., drainage lines or vegetation). The wastewater pond at the CTPs is a pre-existing structure adjacent to No Name Creek. The RMARN Distribution Pond is approximately 230m away from a nearby waterway. Piping will run adjacent to main roads and also crosses several water ways. Refer to the adjacent aerial photos.</p> <p>Controls for the brine containment include daily pipe/storage inspections, engineered pipework and measurement systems including flow and pressure monitoring integrated to the control system to alarm in the event of failure. There is a flow differential system installed to the pipework acting as leak detection for the Remote MAR North pipeline network. There are also level transmitters installed to the brine storage tank, the wastewater pond at the CTPs and the RMARN Distribution Pond to monitor levels and prevent overflow.</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:	L8621/2011/1		
		Relevant works approval number:		N/A	<input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:		None	<input type="checkbox"/>
Date application received	27/09/2022				
Applicant and Premises details					
Applicant name/s (full legal name/s)	Roy Hill Iron Ore Pty Ltd				
Premises name	Roy Hill Iron Ore Mine				
Premises location	M46/518 and M46/519, NEWMAN WA 6753				
Local Government Authority	Shire of East Pilbara				
Application documents					
HPCM file reference number:	2011/009784-1~18				
Key application documents (additional to application form):	Licence Amendment Supporting Document Attachment 1C – Legal Authority to Sign on behalf of Roy Hill Attachment 10 – Licence Amendment fee calculator				
Scope of application/assessment					

<p>Summary of proposed activities or changes to existing operations.</p>	<p>The amendment to licence requires the following proposed changes:</p> <ul style="list-style-type: none"> <li>• Category 57 <ul style="list-style-type: none"> <li>- Increase used tyre storage limits from 5,000 to 6,000 tyres</li> <li>- Add three new used tyre storage locations to Licence</li> </ul> </li> <li>• Category 64 <ul style="list-style-type: none"> <li>- Construct and operate extension of landfill 2 (landfill 3) 13.69 ha trench area</li> <li>- To allow in-pit disposal in additional pit locations</li> <li>- Burial of additional inert waste at existing (4) and proposed (11) in-pit disposal locations</li> <li>- Increase inert type 2 disposal limits from 5,000 tonnes to 12,500 tonnes</li> <li>- Increase clean fill, inert type 1 and putrescible waste disposal limits from 3,000 tonnes to 4,800 tonnes</li> <li>- Disposal of concrete (no steel) and bitumen</li> <li>- Update current licence wording regarding windblown waste</li> </ul> </li> <li>• Category 54 <ul style="list-style-type: none"> <li>- Add a 40 m<sup>3</sup> WWTP to the Licence for the Mine Accommodation Village (additional units)</li> <li>- Increase total capacity throughput limits to 633 m<sup>3</sup> per day</li> </ul> </li> <li>• Category 85B <ul style="list-style-type: none"> <li>- Upgrade the blended water plant (Brackish Water Reserve Osmosis Plant) from 40MLD (15 GL per year) to 80MLD (30 GL per year)</li> </ul> </li> <li>• Other updates <ul style="list-style-type: none"> <li>- Add additional Bioremediation facility location to schedule 1</li> <li>- Add use of TSF decant waste for dust suppression to the Licence</li> </ul> </li> </ul>
--	---

**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	593 m <sup>3</sup> per day	Increase to 633 m <sup>3</sup> per day
Category 57: Used tyre storage (general)	No more than 5,000 tyres	Increase to 6,000 tyres
Category 64: Class II putrescible landfill site	8,000 tonnes per annual period (tpa)	Increase to 17,300 tpa (increase inert type 2 disposal from 5,000 to 12,500 tonnes and clean fill, inert type 1 and putrescible wastes disposal from 3,000 to 4,800 tonnes)
Category 85B: Water desalination plant	15 GL per year	Increase to 30 GL per year
Category 5: Processing or beneficiation of metallic or non-metallic ore	86,000,000 (wet) tpa (to produce 65,000,000 (wet) tpa for export)	No changes
Category 6: Mine dewatering	67,000,000 tpa	No changes
Category 12: Screening, etc. of material	6,750,000 tpa	No changes
Category 52: Electric power generation	80 MW	No changes
Category 73: Bulk storage of chemicals, etc	5,530 m <sup>3</sup> in aggregate	No changes

**Legislative context and other approvals**

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"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" 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: 1189 EPA Report No: 1716
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: EPBC 2018/8330, revised on 5/08/22
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	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"/>	Managed under <i>Mining Act 1978</i>
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 Exemption applies, MS 1189
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"/>	N/A
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"/>	Application reference No: N/A Licence/permit No: GWL 172642(4)
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 Groundwater and Surface Water Area Type: Proclaimed Groundwater Area/Surface Water Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Regional office: North West The categories to be amended does not involve a discharge of waste into a designated area
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <a href="#">WQPN 25</a> )? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
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"/>	<i>Dangerous Goods Safety Act 2004</i> <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> <i>Environmental Protection (Noise) Regulation 1997</i> <i>Environmental Protection (Rural Landfill) Regulations 2002</i>

		<i>Mining Act 1978</i>
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 checked="" type="checkbox"/> No <input type="checkbox"/>	<p>Mine landfill</p> <p>CSS_ID: 70251</p> <p>CSS_SITE_ID: 10220</p> <p>Classification: Report not substantiated</p> <p>Date of classification: 30/03/17</p> <p>Diesel spill</p> <p>CSS_ID: 78224</p> <p>CSS_SITE_ID: 11894</p> <p>Classification: Remediated for restricted use</p> <p>Date of classification: 17/12/20</p>