Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Licence Amendment

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

Licence Number	L7851/2002/6
Licence Holder	BHP Iron Ore Pty Ltd
ACN	008 700 981
File Number	DER2013/000925-1
Premises	Mining Area C Project Mining Tenement ML281SA NEWMAN WA 6753 As defined by the Premises maps attached to the Revised Licence
Date of Report	24 November 2022
Decision	Revised licence granted

Alana Kidd

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Alana Kidd
A/Senior Manager, Resource Industries
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Licence L7851/2002/6 is held by BHP Iron Ore Pty Ltd (Licence Holder) for the Mining Area C Project (the Premises), located at Mining Tenement ML281SA NEWMAN WA 6753.

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 L7851/2002/6 has been granted.

2. Scope of assessment

2.1 Regulatory framework

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

2.2 Application summary

On 29 July 2022, the Licence Holder submitted an application to the department to amend Licence L7851/2002/6 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Add the South Flank surplus water scheme (South Flank Managed Aquifer Recharge (MAR) scheme and Pebble Mouse Creek Discharge Point) constructed and commissioned under Works Approval W6338/2019/1 (note this does not increase the limit for Category 6);
- Extend the Packsaddle Infiltration Pond Trial beyond December 2022, add two new discharge points and increase the volume (note this does not increase the limit for Category 6);
- Remove Point L3 as this point has been decommissioned and all Mulla Mulla wastewater is treated via L13/14; and
- Allow for the construction and operation of two new putrescible landfill facilities.

This amendment is limited only to changes to Category 6, 54 and 89 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Category 5, 12, 52, 63, 73 and 85B 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
6	34,931,000 tonnes per Annual Period	34,840,000 tonnes per Annual Period During this amendment the Premises production or design capacity limit for category 6 has been modified from 34,931,000 tonnes per Annual Period	• Replace the 750 mg/L total dissolved solids (TDS) limit for the Coondewanna Flats monitoring bores (Table 16 of Attachment 5B) with an Electrical Conductivity (EC) limit of 1300 µS/cm; • Add the South Flank surplus water scheme (South Flank

		to 34,840,000 tonnes per Annual Period to align with MS 1072. Approval for the former was granted in 2017, however, in 2020 MS 1072 was approved for the latter and this was not updated on the licence in subsequent amendments.	MAR scheme 12.76 GL/a and Pebble Mouse Creek Discharge Point 12.76 GL/a) constructed and commissioned under Works Approval W6338/2019/1; • Add two additional discharge points (L4 and L5) west of the Packsaddle Infiltration Ponds; • Allow for up to 16.425 GL/a to be discharged between the two additional discharge points (L4 and L5), with no change to the overall site capacity; and • Extend the Packsaddle Infiltration Pond Trial to 12 months after construction of the additional two discharge points L4 and L5, or by 31 December 2024.
54	1,138 m^3 per day	No change	• Remove Point L3 as this point has been decommissioned and all Mulla Mulla wastewater is treated via L13/14.
89	5,000 tonnes per Annual Period	No change	• Allow for the construction and operation of two new putrescible landfill facilities.

The Licence Holder has constructed and commissioned the South Flank Surplus Water Scheme approved under Works Approval W6338/2019/1 and the infrastructure is operating in time limited operations.

An Environmental Compliance Report and Environmental Commissioning Report have been provided for the South Flank surplus water scheme (South Flank MAR scheme and Pebble Mouse Creek Discharge Point) and the department determined that it met the requirements of the Works Approval W6338/2019/1, with this infrastructure now in time limited operational phase.

2.2.1 Category 6

The discharge of the mine dewatering is required as it is surplus groundwater that will be taken from the aquifers to allow mining of below water table ore. The Licence Holder has selected two options for disposal of this surplus water – South Flank MAR and surface water discharge to Pebble Mouse Creek, along with the Packsaddle Infiltration Ponds Trial Extension.

South Flank MAR

Approximately 12.76 GL/a of surplus water will be dewatered from the A Deposits and C Deposits and transferred by approximately 14km of pipeline to a 1,100 kL balance tank for discharge to South Flank MAR.

The groundwater bores that have been implemented include the following:

- Eight reinjection Bores: HSF5462P, HSF5463P, HSF5464P, HSF5465P, HSF5466P, HSF5467P, HSF5469P and HSF5496P; and
- Five monitoring bores HSF0055M2, HSF5473M, HSF5482M, HSF5494M and HSF5480M.

Bore HSF5482M will be covered by a waste rock dump in early 2023. The Licence Holder is currently reviewing where a new bore can be established to replace HSF5482M.

These are shown on Figure 3 of Premises maps attached to the Revised Licence.

The water quality of the source and receiving aquifers is similar. The MAR scheme at A Deposit used the same source and receiving aquifers as the South Flank MAR and has shown that the reinjection does not significantly alter the chemistry of the receiving aquifer.

Pebble Mouse Creek

One named perennial watercourse (Pebble Mouse Creek) and a number of unnamed perennial watercourses flow across the scheme area. Pebble Mouse Creek is located within the Upper Weeli Wolli Creek sub catchment and exhibits high inter-annual variability of streamflow, with long periods of low or no flow. Southern Flank valley receives drainage from the higher ground north of the main valley and from the north-eastern slopes of Mount Robinson. Drainage from the Southern Flank ridgeline generally passes through narrow valleys or gorges before reaching the valley floor. The valley floor drains into Pebble Mouse Creek which enters Southern Flank valley from the south and continues on to the east into Weeli Wolli Creek.

Water quality in the catchment is considered to be good, with total dissolved solids up to 100 mg/L in Pebble Mouse Creek.

Approximately 12.76 GL/a of surplus water will be dewatered from the A Deposits and C Deposits and transferred by approximately 14km of pipeline to a 1,100 kL balance tank for discharge to Pebble Mouse Creek. There is a discharge point to Pebble Mouse Creek consisting of pipe with a diameter of 200mm that then increases to a pipe diameter of 500mm and water discharges via a series of 24 holes on each side of the discharge pipe. Rip rap protection underneath, to each side and downstream of the discharge pipe.

There is a Wetting Front Early Warning Point gauging station and a Wetting Front Discharge Limit gauging station, with discharge occurring. Data is sent to the control room every 30 minutes.

Packsaddle Infiltration Ponds Trial Extension

The Packsaddle Infiltration Ponds were approved for construction as part of a licence amendment to licence L7851/2002/6 on 29 September 2016 to allow excess mine dewatering water to infiltrate.

During an amendment on 07 November 2019 a trial allowing the overtopping of the Packsaddle Infiltration Ponds was authorised. This is due to the Packsaddle Infiltration ponds not performing as anticipated. Overtopping of the ponds is a trial to understand the behaviour of water in the drainage lines downstream of the Packsaddle Infiltration Ponds and investigate the response of vegetation along the discharge pathways. The drainage lines from the Packsaddle Infiltration Ponds flow to the west, beneath the Great Northern Highway via existing culverts.

Water from the Packsaddle Ponds overtopping trial enters an unnamed perennial drainage line to the west of the ponds. The water then flows north west and under Great Northern Highway, where it flows west to an unnamed perennial creek than ultimately discharges to Coondewanna Flats and will enter the two regional aquifers. The wetting front limit (SCPH0010) is 3.75 km from the boundary of the Coondewanna Flats PEC.

During this licence amendment the Packsaddle Infiltration Ponds trial is to be extended with the addition of two new discharge points and higher volumes to better understand the behaviour of water in the drainage lines downstream of the Packsaddle Infiltration Ponds and investigate the response of vegetation along the discharge pathways. The current volumes are not substantial enough to determine this.

Conversion from TDS to Electrical Conductivity

The Coondewanna Flats ambient groundwater monitoring bores currently have a limit of 750 mg/L TDS. Monitoring of TDS requires that water samples are taken and analysed in the laboratory resulting in a lag in the data being available to address any limit exceedances. Electrical Conductivity can be measured with bore loggers and in the field providing real time data. Changing from monitoring TDS to EC would provide a continuous dataset and also enable a faster response to any changes in EC or limit exceedances.

Based on TDS to EC conversion factors the Licence Holder is proposing an EC limit for bores HCF0023M, HCF0032M and HCF0045M of not more than 1,300 µS/cm.

2.2.2 Category 54

The Licence Holder is requesting the removal of Emission point L3 (discharge of treated wastewater from Mulla Mulla Camp WWTP to designated irrigation area). This is because treated effluent from the Mulla Mulla Camp WWTP is now discharged to L13 and L14 irrigation areas and L3 irrigation area has been decommissioned. This has been previously assessed so is an administrative amendment.

2.2.3 Category 89

The Licence Holder is proposing to construct and operate two new putrescible landfills.

The proposed new putrescible landfills are located 1 km north west (location 1) and 500 m north (location 2) of the existing putrescible landfill closest to discharge point L20.

Each landfill will be constructed with a series of trenches with the following maximum dimensions:

- Location 1: Up to four trenches: length of 400m, width 25m and depth 2.5m deep; and
- Location 2: Up to five trenches length of 500m, width 25m and depth 2.5m deep.

Windrows will be maintained along the landfill boundaries to direct stormwater away from the trenches, with perimeter fencing maintained around active landfill trenches.

Additional cells may be installed on top of the original cells once they have reached capacity.

Both locations are cleared of vegetation and depth to groundwater is approximately 29 m.

None of the proposed locations are closer to a sensitive receptor than the current putrescible landfills within the prescribed premises

2.3 Part IV of the EP Act

Ministerial Statement – MS 1072 dated 20 February 2018 for approval to implement revised proposal to mine the Mining Area C Northern Flank and Southern Flank orebodies.

Replaces former MS 491 which was for ‘Multiple Iron Ore Mine Development, Mining Area C – Northern Flank, 100 km north-west of Newman. (Note: ‘Water usage and dewatering requirements’ was removed as a Part IV Key Characteristic in March 2014 as ‘conservation values are managed under the Life of Mine Environmental Management Plan; dewatering and discharge can be managed under other legislation’).’

Condition 6 of MS 1072 requires that a Water Management Environmental Management Plan be implemented:

Water Management Environmental Management Plan

6-1 The proponent shall prepare and submit an Environmental Management Plan (the Plan), on the advice of the Department of Water and Environmental Regulation, and the Department of Biodiversity, Conservation and Attractions, that demonstrates how the

proponent will achieve the following:

(1) no reduction in the extent of each of the following components of the Coolibah-Lignum Flats Priority Ecological Community occurrence on the Coondewanna Flats:

(a) Coolibah woodlands over lignum over swamp wandiree, or

(b) Coolibah and mulga woodland over lignum and tussock grasses on clay plains, attributable to the Revised Proposal.

(2) no reduction in the extent of the Weeli Wolli Spring occurrence of the Weeli Wolli Spring Priority Ecological Community attributable to the Revised Proposal.

(3) no reduction in the extent of the Ben's Oasis occurrence of the Weeli Wolli Spring Priority Ecological Community attributable to the Revised Proposal.

6-2 The Plan shall specify Outcome/s, Trigger Criteria, Threshold Criteria,Monitoring, Trigger Level Actions, Threshold Contingency Actions, and Reporting to demonstrate that the outcome in Condition 6-1(1) will be met.

6-3 The Plan shall specify Management Actions, Management Targets, Monitoring and Reporting to demonstrate that the objectives in Condition 6-1(2) and 6-1(3) will be met.

6-4 The Plan shall be prepared in accordance with the EPA's Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans, or any guideline published by the EPA which amends or replaces this document from time to time.

6-5 The proponent shall submit the Plan to the CEO within six (6) months of the date of this Statement, or as otherwise agreed in writing by the CEO.

6-6 The proponent shall implement the Central Pilbara Water Resource Management Plan (Version 3.0) until the CEO has confirmed by notice in writing that the Plan required by condition 6-1 satisfies the requirements of condition 6-2 and 6-3 to meet the objectives required by condition 6-1.

6-7 The proponent shall implement the most recent version of the Plan approved by the CEO.

6-8 In the event of exceedance of threshold criteria in condition 6-2 or failure to meet management targets in condition 6-3, the proponent shall meet the requirements in condition 3 (Compliance Reporting) and shall implement the measures outlined in the Plan, including, but not limited to, actions and investigations to be undertaken, and reporting to the CEO.

6-9 Any changes to Trigger Criteria, Threshold Criteria, Trigger Level Actions, Threshold Contingency Actions, Management Actions, Management Targets Monitoring or Reporting in the Plan must be approved by the CEO in writing.

The Central Pilbara Water Resource Management Plan Revision 3.4 is used by the Applicant to address this conditions requirements. Central Pilbara Water Resource Management Plan Version 3.4 submitted to DWER Part IV of the EP Act for review on 1 March 2019 and endorsed 9 April 2019 (BHP Billiton, 2019).

A section 45C (s45C) application for MS 1072 for the MAR and discharge scheme was approved 15 January 2020. This resulted in modifications to Table 2 of MS 1072 for surplus water management (shown in bolded text below):

Up to 34.84 GL per annum via managed aquifer recharge, infiltration ponds, discharge from sedimentation basin and discharge to a drainage line that leads to Pebble Mouse Creek.

Discharge along drainage line and Pebble Mouse Creek:

- will not extend further than 14 km from the discharge point or extend beyond the boundary of the Mining Area C development envelope.

- shall be intermittent under natural no flow conditions for maximum of 120 days in any 12 month period.

Mounding as a result of managed aquifer recharge at South Flank will be maintained at or below 30 m from ground level within an area of 400 m around the HSF5495M bore.

During this amendment the Premises production or design capacity limit for category 6 has been modified from 34,931,000 tonnes per Annual Period to 34,840,000 tonnes per Annual Period to align with MS 1072. Approval for the former was granted in 2017, however, in 2020 MS 1072 was approved for the latter and this was not updated on the licence in subsequent amendments.

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 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
Construction			
Putrescible Landfills			
Dust	Vehicles / machinery	Air/windborne pathway	Both locations are cleared of vegetation. Any vegetation disturbance associated with the landfills will be conducted in accordance with MS 1072. Dust will be managed in accordance with existing licence conditions.
Noise	Vehicles / machinery	Air/windborne pathway	Standard noise reduction controls on equipment. *Environmental Protection (Noise Regulations) 1997.*
Hydrocarbons, chemicals, contaminated stormwater	Materials used during construction and potential for stormwater ingress into the landfill are during construction	Direct discharges from leaks/spills	All hydrocarbons are either stored within bunded areas or are within double skinned fuel bullets to prevent leaks from entering the environment. Where hydrocarbon spills occur outside of these areas they are cleaned up with any contaminated soil removed to the designated bioremediation

Emission	Sources	Potential pathways	Proposed controls
			area or disposed of off site using a licensed contractor.
Commissioning and time limited operations			
South Flank MAR			
Mine dewatering water	Pipeline ruptures resulting in direct discharges and deterioration in soils, inundation of vegetation and seepage to groundwater	Direct discharges from leaks/spills	This would only result from an incident or malfunction and occur for a short duration. The water is good quality it is unlikely that adverse impacts would occur. There are flow meters at the South Flank Turkeys Nest, Balance Tank, MAR Borefield and Pebble Mouse Creek discharge point. Ruptures can be determined utilising the difference between these if there is a rupture. The balance tank has a level sensor with an alarm that goes back to the control room and an overflow pipe with rip rap at the discharge point
	Mine dewatering water pulled from the aquifer for to allow mining of ore	Direct discharges via reinjection bores resulting in mounding and deterioration in groundwater quality	Groundwater monitoring network is in place to monitor mounding, which includes five groundwater monitoring bores in the vicinity of the sensitive receptors. Key broad floristic communities that could be impacted by groundwater mounding of the MAR scheme are located east (*Eucalyptus* Low Open Forest) and south (*Acacia* Low Open Forest and Acacia Open Scrub). Potential impacts of groundwater mounding occur at the following depths for the identified key broad floristic communities: • *Eucalyptus* Low Open Forest): 15 mbgl; and • *Acacia* Low Open Forest / Acacia Open Scrub: 7 mbgl. Five groundwater monitoring bores (HSF0055M2, HSF5473, HSF5482M, HSF5494M and HSF5480M) will be used to monitor any mounding that occurs close to these broad floristic communities. The proposed limits associated with the monitoring bores are in place to prevent any impacts to vegetation associated with the operation of the MAR scheme. Bore HSF5482M will be covered by a

Emission	Sources	Potential pathways	Proposed controls
			waste rock dump in early 2023. The Licence Holder is currently reviewing where a new bore can be established to replace HSF5482M. There is not monitoring in the vicinity of the injection bores as these bores: • Do not occur in significant broad floristic communities; • Are located significantly higher in the landscape (creating a greater de3pth to water) than the monitoring bores meaning that the trigger limits will be reached at the monitoring bores before any significant impact would occur at the injection bores; and • Can operate with significantly higher heads inside the bore casing due to well efficiency issues, which aren't reflective of water levels in the wider aquifer unit. The water quality of the source and receiving aquifers is similar. The MAR scheme at A Deposit used the same source and receiving aquifers as the South Flank MAR and has shown that the reinjection does not significantly alter the chemistry of the receiving aquifer. The water quality of abstracted groundwater will be tested quarterly at the South Flank Balance Tank during operations. Quarterly water quality testing will also occur at the four monitoring bores. Reinjection will cease if the water quality limits for the South Flank Balance Tank are reached. The water quality limit for the South Flank MAR scheme (measured at the Balance Tank) should be the same as that for the Juna Downs MAR i.e. EC limit of 1,300mg/L as it is the same source water that is to be injected and similar water quality at the receiving aquifer.
		Direct discharges via reinjection bores resulting in mounding and deterioration in subterranean fauna (troglofauna)	Groundwater monitoring network is in place to monitor mounding, which includes four groundwater monitoring bores in the vicinity of the sensitive receptors. Key troglofauna habitat is located in the valley east and west of the MAR scheme. This area will experience mounding and some impacts to troglofauna habitat in the operation phase of the project. Four groundwater monitoring bores Five

Emission	Sources	Potential pathways	Proposed controls
		habitat	groundwater monitoring bores (HSF0055M2, HSF5473, HSF5494M and HSF5480M) will be used to monitor any mounding that occurs within key subterranean habitat. The proposed limits associated with the monitoring bores are in place to prevent any significant impacts to troglofauna associated with the operation of the MAR scheme. There is not monitoring in the vicinity of the injection bores as these bores: • Do not occur in significant broad floristic communities; • Are located significantly higher in the landscape (creating a greater depth to water) than the monitoring bores meaning that the trigger limits will be reached at the monitoring bores before any significant impact would occur at the injection bores; and • Can operate with significantly higher heads inside the bore casing due to well efficiency issues, which aren't reflective of water levels in the wider aquifer unit. The water quality of the source and receiving aquifers is similar. The MAR scheme at A Deposit used the same source and receiving aquifers as the South Flank MAR and has shown that the reinjection does not significantly alter the chemistry of the receiving aquifer. The water quality of abstracted groundwater will be tested quarterly at the South Flank Balance Tank during operations. Quarterly water quality testing will also occur at the four monitoring bores. Reinjection will cease if the water quality limits for the South Flank Balance Tank are reached.
Pebble Mouse Creek			
Mine dewatering water	Pipeline ruptures resulting in direct discharges and deterioration in soils, inundation of vegetation and seepage to groundwater	Direct discharges from leaks/spills	This would only result from an incident or malfunction and occur for a short duration. The water is good quality it is unlikely that adverse impacts would occur. There are flow meters at the South Flank Turkeys Nest, balance tank, MAR Borefield and Pebble Mouse Creek discharge point. Ruptures can be determined utilising the

Emission	Sources	Potential pathways	Proposed controls
			difference between these if there is a rupture. The balance tank has a level sensor with an alarm that goes back to the control room and an overflow pipe with rip rap at the discharge point
	Mine dewatering water pulled from the aquifer for to allow mining of ore	Direct discharges to Pebble Mouse Creek resulting in scouring, erosion, inundation of vegetation and weeds	Erosion controls have been built as part of the discharge point design and were confirmed to be effective during the commissioning period. The discharge point will continue to be inspected to monitor any erosion that may have occurred. In the event that erosion is noted, additional erosion controls will be implemented (e.g. Extending rip rap) and if necessary repairs conducted. Discharge into Pebble Mouse Creek will be managed to ensure it does not extend beyond the Wetting Front Limit. This limit (and the associated Wetting Front Early Warning Point) will prevent impacts to vegetation health outside of the prescribed premises. The water quality of abstracted groundwater will be tested quarterly at the South Flank Balance Tank. Discharge will cease if the water quality limits for the South Flank Balance Tank are reached.
Packsaddle Infiltration Ponds Trial Extension			
Mine dewatering water	Water from the Packsaddle Infiltration Ponds	Direct discharges via overtopping of the Packsaddle Infiltration Ponds resulting in scouring, erosion, inundation of vegetation and weeds	*Coondewanna Flats* To prevent potential impacts on the Coondewanna Flats PEC the discharge trial wetting front will not extend beyond the Wetting Front Limit. Crest gauges fitted with telemetry have been installed at two points along the drainage line located northwest of Coondewanna Flats. The first crest gauge acts as an early warning trigger that shows when water is moving towards Coondewanna Flats but is 7 km away from the PEC. When water is detected at this location the discharge will be stopped or moved to the alternate drainage line. The second crest gauge is located 3.75 km upstream of the PEC boundary and is used to confirm that the water hasn't moved the

Emission	Sources	Potential pathways	Proposed controls
			Coondewanna PEC. *Vegetation* Discharge is alternated between the northern and southern drainage lines to avoid any lasting inundation of the vegetation. Vegetation of the drainage lines is monitored and evaluated to identify any plant stress along the discharge flow path. Should vegetation begin to show significant signs of water stress: 1. Discharge will be changed to the alternative drainage line; and 2. Discharge cycles will be reduced in weekly increments to establish a duration that causes low stress. Longer drying periods may also be utilised to determine the effects of an uneven wetting/drying cycle. L4 and L5 will be constructed in accordance with BHP's standard Discharge Point Design. This standard has the following erosion management measures in place: • The header pipe is designed to diffuse and reduce water velocity; and • The area beneath the header pipe will be installed with rip rap facing.
Putrescible Landfills			
Dust	Vehicles / machinery	Air/windborne pathway causing impacts to health and amenity	Dust control on unsealed roads will be managed via the use of water carts as required. Dust will be managed in accordance with existing licence conditions.
Windblown waste	Waste blown by wind outside of the landfilling area	Littering and exposure for fauna and livestock	Licence condition stating that the Licence Holder must ensure that wind-blown waste is contained within the boundary of the Premises and that wind-blown waste is returned to the tipping area on at least a monthly basis. Waste will be covered in accordance with the licence conditions: • 150 mm, As soon as practicable and not later than weekly; and • 1,000 mm, Within 3 months of

Emission	Sources	Potential pathways	Proposed controls
			achieving final waste contours.
Odour	Putrescible waste	Air/windborne pathway causing impacts to health and amenity	Waste will be covered in accordance with the licence conditions: • 150 mm, As soon as practicable and not later than weekly; and • 1,000 mm, Within 3 months of achieving final waste contours.
Leachate	Rainwater ingress through the landfilling area creating seepage	Seepage to soils and groundwater	Depth to groundwater at the proposed putrescible landfill sites is approximately 29 m and the nearest non perennial drainage line is approximately 100 m south. The Licence Holder has stated that depth to groundwater and distance to surface water drainage is adequate to prevent impacts to ground and surface water.
Contaminated stormwater	Stormwater ingress to landfilling area causing contaminating rainwater	Soils, vegetation, groundwater	Windrows will be maintained along the landfill boundaries to direct stormwater away from the trenches, with perimeter fencing maintained around active landfill trenches

3.1.2 Receptors

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

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

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

Human receptors	Distance from prescribed activity
Newman	Approximately 100 km south east of the Premises
Rio Tinto Iron Ore's Hope Downs Ore Mining Operation and village	1.5 km from premises boundary. 14 km from the WWTP. 14.8 km from System B & D.
Great Northern Highway (visibility issues to traffic)	100 m from premises boundary. 16.3km from System B & D.
Environmental receptors	**Distance from prescribed activity**

PEC – Priority 3: Coondewanna Flats ((Coondewanna Flats and Wanna Munna Flats) Priority 3(i))	200 m from premises boundary. 5.5 km from ore processing facilities. Adequately managed under MS 1072.
Stygofauna	Seven species of stygofauna have been recorded in the mounding area although six of these are known or considered to have ranges extending beyond the expected disturbance (Bennelongia 2019). The remaining species, the syncarid *Bathynella* sp. 2 (South Flank), is known from a single hole (SF3016R) east of the Project Area but within the mounding area. This occurrence of this species outside the mounding area cannot be confirmed based on current data (Bennelongia, 2019).
Groundwater	Hamersley – Fractured Rock Aquifer. Depth to groundwater approximately 90 m.
Surface water	A number of unnamed perennial watercourses flow across the Prescribed Premises. The Prescribed Premises also intersects the northern most section of Coondewanna Flats but is not within the boundary of the Coondewanna Flats PEC. The closest water feature to the area of the Putrescible Landfill Expansion is a non-perennial drainage line located approximately 300m east of the western edge of the facility

3.2 Risk ratings

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

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

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

The Revised Licence L7851/2002/6 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. Category 6, 54 and 89.

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, commissioning and operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Construction								
Putrescible Landfills	Dust	Air/windborne pathway causing impacts to health and amenity	Rio Tinto Iron Ore's Hope Downs Ore Mining Operation and village 1.5 km	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
	Noise			Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
	Hydrocarbons, chemicals, contaminated stormwater	Direct discharges from leaks/spills	Soils, vegetation, groundwater	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
Commissioning and Operation (including time-limited-operations operations)								
Category 6 South Flank MAR	Mine dewatering water, good fresh quality, generally meets the ANZECC/ARMCANZ 95% level of species protection trigger values for freshwater	Pipeline ruptures resulting in direct discharges and deterioration in soils, inundation of vegetation and seepage to groundwater	Soils, vegetation, groundwater	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 2, Table 2 Infrastructure and equipment requirements Requires flow meters to be maintained	N/A
		Direct discharges via reinjection bores resulting in mounding and deterioration in groundwater quality	Deep rooted vegetation and subterranean fauna	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 17, Table 8 Emission points to groundwater Requires new MAR bores to be stipulated on the licence as emission points to groundwater	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
							Condition 18, Table 9 Point source emission limits to groundwater Requires that ambient groundwater monitoring bores have a Standing Water Level (SWL) limit for mounding Condition 19, Table 10 Management actions Requires particular management actions if limits are exceeded Condition 25, Table 13 Monitoring of point source emissions to groundwater Requires the addition of the South Flank Balance Tank or monitoring bores for monitoring of point source emissions to groundwater Condition 28, Table 16 Ambient groundwater limits Requires SWL limits Condition 29, Table 17 Monitoring of ambient groundwater quality Requires new MAR bores to be monitored for water quality Condition 30, Table 18 Monitoring following groundwater trigger exceedance Requires managing injection rates to ensure that groundwater SWL is not reached	

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Category 6 Pebble Mouse Creek	Mine dewatering water, good fresh quality, generally meets the ANZECC/ARMCANZ 95% level of species protection trigger values for freshwater	Direct discharges to Pebble Mouse Creek resulting in scouring, erosion, inundation of vegetation and weeds	Riparian vegetation and hyporheic zone subterranean fauna	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Condition 20, Table 11 Emissions to land Requires new emission point to land L6 to be included Condition 21, Table 12 Emission limits to land Requires Wetting Front Limit Condition 26, Table 14 Monitoring of emissions to land Requires the addition of L6 to the monitoring of emission points to land for flow meter monitoring, water quality monitoring and Wetting Front Limit monitoring	N/A
Category 6 Packsaddle Infiltration Ponds Trial extension	Mine dewatering water from the Packsaddle Infiltration Pond good, fresh quality, generally meets the ANZECC/ARMCANZ 95% level of species protection trigger values for freshwater	Direct discharges via overtopping of the Packsaddle Infiltration Ponds resulting in scouring, erosion, inundation of vegetation and weeds	Riparian vegetation and hyporheic zone subterranean fauna	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Condition 20, Table 11 Emissions to land Requires new emission points to land L4 and L5 to be included Condition 21, Table 12 Emission limits to land Requires addition of L4 and L5 Wetting Front Limit Condition 26, Table 14 Monitoring of emissions to land Requires the addition of L4 and L5 to the monitoring of emission points to land for flow meter monitoring, water quality monitoring and Wetting Front Limit	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
							monitoring Condition 31, Table 19 Monitoring of Packsaddle Infiltration Ponds Vegetation Monitoring Program Modification to the dates for the trial Condition 39, Table 23 Notification requirements Requires compliance document for the additional discharge points associated with the Packsaddle Infiltration Pond Trial	
Category 54 Removal of L3 discharge point as Mulla Mulla wastewater reports to L13 and L14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 89 Two new putrescible landfills	Dust	Air/windborne pathway causing impacts to health and amenity	Rio Tinto Iron Ore's Hope Downs Ore Mining Operation and village 1.5 km	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 2, Table 2 Infrastructure and equipment requirements Requires particular trench design Condition 16 requires that the two putrescible landfills must be operated in accordance with the conditions of the licence following submission of the compliance document Condition 39, Table 23 Notification requirements Requires compliance document for the putrescible landfills	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
	Windblown waste	Littering and exposure for fauna and livestock	Fauna and livestock	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	Condition 2, Table 2 Infrastructure and equipment requirements Requires particular trench design and fencing to be maintained Condition 6 requires that waste is levelled and compacted as soon as practicable after it is discharged. Condition 7, Table 5 Cover requirements Requires that waste is covered to a depth of 150 mm as soon as practicable and not later than weekly and that waste is covered to a depth of 1,000 mm within 3 months of achieving final waste contours Condition 9 requires that windblown waste is contained within the boundary of the premises and returned to the tipping area at least monthly Condition 12, Table 7 Infrastructure to be constructed Requires particular trench design and windrows to be maintained to direct stormwater away from trenches Condition 16 requires that the two putrescible landfills must be operated in	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
							accordance with the conditions of the licence following submission of the compliance document Condition 39, Table 23 Notification requirements Requires compliance document for the putrescible landfills	
	Odour	Air/windborne pathway causing impacts to health and amenity	Rio Tinto Iron Ore's Hope Downs Ore Mining Operation and village 1.5 km	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	Condition 2, Table 2 Infrastructure and equipment requirements Requires particular trench design Condition 6 requires that waste is levelled and compacted as soon as practicable after it is discharged. Condition 7, Table 5 Cover requirements Requires that waste is covered to a depth of 150 mm as soon as practicable and not later than weekly and that waste is covered to a depth of 1,000 mm within 3 months of achieving final waste contours Condition 12, Table 7 Infrastructure to be constructed Requires particular trench design and windrows to be maintained to direct stormwater away from trenches	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
							Condition 16 requires that the two putrescible landfills must be operated in accordance with the conditions of the licence following submission of the compliance document Condition 39, Table 23 Notification requirements Requires compliance document for the putrescible landfills	
	Leachate	Seepage to soils and groundwater	Depth to groundwater approximately 90 m.	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	Condition 2, Table 2 Infrastructure and equipment requirements Requires particular trench design and windrows to be maintained to direct stormwater away from trenches Condition 3, Table 3 Waste acceptance criteria Requires quantity limit and specification on what wastes can be accepted to the landfills Condition 4 requires any wastes that do not meet the acceptance criteria to be stored and disposed of appropriately Condition 5, Table 4 Waste processing Requires that waste must only be placed in the sites shown in the maps Condition 12, Table 7 Infrastructure to be	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
							constructed Requires particular trench design and windrows to be maintained to direct stormwater away from trenches Condition 16 requires that the two putrescible landfills must be operated in accordance with the conditions of the licence following submission of the compliance document Condition 39, Table 23 Notification requirements Requires compliance document for the putrescible landfills	
	Contaminated stormwater	Stormwater ingress to landfilling area causing contaminating rainwater	Soils, vegetation, groundwater	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Condition 2, Table 2 Infrastructure and equipment requirements Requires particular trench design and windrows to be maintained to direct stormwater away from trenches Condition 12, Table 7 Infrastructure to be constructed Requires particular trench design and windrows to be maintained to direct stormwater away from trenches Condition 16 requires that the two putrescible landfills must be operated in accordance with the conditions of the licence	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
							following submission of the compliance document Condition 39, Table 23 Notification requirements Requires compliance document for the putrescible landfills	

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

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

4. Consultation

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

Table 5: Consultation

Consultation method	Comments received	Department response
Local Government Authority advised of proposal (20/09/2022)	No comments received.	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal (20/09/2022)	DMIRS replied on 17/10/2022 stating/advising that they had no comments.	DMIRS replied on 17/10/2022 stating/advising that they had no comments.
Department of Department of Jobs, Tourism, Science and Innovation advised of proposal (20/09/2022)	No comments received.	N/A
Licence Holder was provided with draft amendment on (09/11/2014)	Licence Holder provided comments on 23/11/2022 Refer to Appendix 1	Licence Holder provided comments on 23/11/2022 Refer to Appendix 1

5. Conclusion

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

5.1 Summary of amendments

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

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
Cover page	During this amendment the Premises production or design capacity limit for category 6 has been modified from 34,931,000 tonnes per Annual Period to 34,840,000 tonnes per Annual Period to align with MS 1072. Approval for the former was granted in 2017, however, in 2020 MS 1072 was approved for the latter and this was not updated on the licence in subsequent amendments.
1, Table 1	During this amendment the Premises production or design capacity limit for category 6 has been modified from 34,931,000 tonnes per Annual Period to 34,840,000 tonnes per Annual Period to align with MS 1072. Approval for the former was granted in 2017, however, in 2020 MS 1072 was approved for the latter and this was not updated on the licence in subsequent amendments. Modifications to the production capacities to Packsaddle Infiltration Trial, South Flank MAR reinjection bores and Pebble Mouse Creek.
2, Table 2	Addition of operational requirements for the two new putrescible landfills.

	Addition of operational requirements for the to Packsaddle Infiltration Trial, South Flank MAR reinjection bores and Pebble Mouse Creek.
11, Table 6	Addition of emission points L4 and L5 for the Packsaddle Infiltration Ponds to enable the wetting front to be extended to the distances proposed in the original trial. Addition of emission point L6 for discharge of surplus mine dewater to Pebble Mouse Creek.
12, Table 7	Addition of two additional discharge points L4 and L5 for the Packsaddle Infiltration Ponds to the construction table. Addition of two new putrescible landfills to the construction table.
16	New condition to operate the new discharge points L4 and L5 for the Packsaddle Infiltration Trial and the two putrescible landfills in accordance with the licence conditions following submission of the compliance document.
17, Table 8	Inclusion of the South Flank MAR reinjection bores to the emission points to groundwater table.
18, Table 9	Inclusion of the South Flank MAR reinjection bores depth to groundwater limit to the point source emission limits to groundwater.
19, Table 10	Inclusion of the South Flank MAR reinjection bores to the management actions table.
20, Table 11	Removal of L3 from the emissions to land table as the irrigation area has been decommissioned and treated effluent from the Mulla Mulla Camp WWTP is discharged to irrigation areas at L13 and L14. Addition of L4 and L5 for the Packsaddle Infiltration Ponds to the emissions to land table. Addition of L6 for the Pebble Mouse Creek discharge to the emissions to land table.
21, Table 12	Addition of L6 for the Pebble Mouse Creek limit for the distance the discharge can flow down the creek. Addition of L4 and L5 for the Packsaddle Infiltration Ponds wetting front limit.
25, Table 13	Addition of the South Flank MAR water quality to the monitoring of point source emissions to groundwater table.
26, Table 14	Removal of L3 from the monitoring of emissions to land table as the irrigation area has been decommissioned and treated effluent from the Mulla Mulla Camp WWTP is discharged to irrigation areas at L13 and L14. Addition of L4 and L5 for the Packsaddle Infiltration Ponds to the monitoring of emissions to land table. Addition of L6 for the Pebble Mouse Creek discharge to the monitoring of emissions to land table. Addition of L4 and L5 for the Packsaddle Infiltration Ponds to the monitoring of emissions to land table for visual inspection of the Wetting Front Limit Marker.
28, Table 16	Conversion of Total Dissolved Solids to Electrical Conductivity and addition of MAR groundwater monitoring bores for SWL.
29, Table 17	Addition of the South Flank MAR groundwater monitoring bores.
30, Table 18	Addition of the South Flank MAR groundwater monitoring bores to the trigger exceedance table.
31, Table 19	Updated dates for Packsaddle Infiltration Ponds Vegetation Monitoring Program.
37, Table 21	Removal of L3 from the Annual Environmental Report table as the irrigation area has been decommissioned and treated effluent from the Mulla Mulla Camp WWTP is discharged to irrigation areas at L13 and L14.

	Addition of L4 and L5 for the Packsaddle Infiltration Ponds to the Annual Environmental Report table. Addition of L6 for the Pebble Mouse Creek discharge to the Annual Environmental Report.
38, Table 22	Updated dates for Packsaddle Infiltration Ponds Vegetation Monitoring Program.
Schedule 1: Maps, Figure 2	Emissions to Land and Process Monitoring figure updated with L3 removed.

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. BHP Iron Ore Pty Ltd, Application to Amend the MAC / South Flank Environmental Licence L7851 - South Flank MAR and Packsaddle Trial Extension 29 July 2022, Perth, Western Australia.
5. BHP Iron Ore Pty Ltd, RE: L7851 MAC Licence Amendment 27 October 2022, Perth, Western Australia.
6. Bennelongia (2019) South Flank MAR Subterranean Fauna Desktop Assessment. Unpublished report for BHP Billiton Iron Ore.
7. BHP Iron Ore Pty Ltd, RE: PROPOSED AMENDMENT TO LICENCE L7851/2002/6 - Mining Area C Project 23 November 2022, Perth, Western Australia.
8. BHP Iron Ore Pty Ltd, RE: PROPOSED AMENDMENT TO LICENCE L7851/2002/6 - Mining Area C Project 23 November 2022, 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
2, Table 2 South Flank MAR Scheme	Remove the reference to the South Flank Turkeys Nest. The final scheme bypasses the South Flank Turkeys nest (this change was detailed in the Works Approval Compliance Report). The balance tank will capture the total volume of water going to the scheme.	Updated as requested.
2, Table 2 Pebble Mouse Creek Discharge Scheme	Amend the requirement to inspect the Pebble Mouse Creek Discharge Point for erosion from daily to quarterly. There has been no evidence of erosion at this point during Commissioning and Time Limited Operations, so a daily or even monthly inspection is not warranted to manage the very low risk of future erosion.	Updated as requested.
26, Table 14 Point L6	Shift the "Pebble Mouse Creek Wetting Front Limit Gauging Station" to be only against the Visual inspection. All other data will be collected from the balance tank or discharge point and the visual inspection is only required for the gauging station.	Updated as requested.
Schedule 1: Maps, Figures 1 - 3	Update Figure 1: Replace the draft Figure 1 with the map provided in the Application, which shows the new landfill locations. A copy of the map has been attached (MAC_014LA_001_RevA_0) Update Figure 2: Replace the draft Figure 2 with the map provided in the Application, which shows the correct reference to for L10. A copy of the map has been attached (MAC_014LA_002_RevA_0) Update Figure 3: Replace the draft Figure 3 with the attached map (MAC_014LA_003_RevB_0), which shows the new proposed South Flank MAR bore HSFMARREP	Updated as requested.
Bore HSF5482M	Amend all the references to monitoring bore "HSF5482M" to be "HSF5482M or HSFMARREP (once constructed)" in Tables 2, 9, 10, 13, 16, 17 and 18 and Figure 3 (updated figure attached). Note that a formal bore name cannot be provided until drilled as names are only assigned at	Updated as requested.

Condition	Summary of Licence Holder's comment	Department's response
	that time. The location for the new bore is shown on the attached updated Figure 3. Based on the geology at HSFMARREP the bore will intersect the dolomite aquifer, which is the MAR target aquifer of all SF MAR Injection bores. The intent is for monitoring to continue at HSF5482M until: a. bore HSFMARREP has been constructed; and b. HSF5482M is covered by, or becomes inaccessible due, the approaching waste dump.	
Amendment Report	The water quality limit for the SF MAR scheme (measured at the balance Tank) should be the same as that for the Juna Downs MAR i.e. EC limit of 1,300mg/L as it is the same source water that is to be injected and similar water quality at the receiving aquifer.	Updated Condition 28, Table 16 Ambient groundwater limits to include Electrical Conductivity limit of 1,300 mg/L for the South Flank MAR bores HSF0055M2 HSF5473M HSF5482M or HSFMARREP (once constructed) HSF5494M HSF5480M

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY					
Application type					
Works approval	☐				
Licence	☐	Relevant works approval number:		None	☐
		Has the works approval been complied with?		Yes ☐ No ☐	
		Has time limited operations under the works approval demonstrated acceptable operations?		Yes ☐ No ☐ N/A ☐	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?		Yes ☐ No ☐	
		Date Report received:			
Renewal	☐	Current licence number:			
Amendment to works approval	☐	Current works approval number:			
Amendment to licence	☒	Current licence number:	L7851/2002/6		
		Relevant works approval number:		N/A	☐
Registration	☐	Current works approval number:		None	☐
Date application received		29 July 2022			
Applicant and Premises details					
Applicant name/s (full legal name/s)		BHP Iron Ore Pty Ltd			
Premises name		Mining Area C Project			
Premises location		Mining Tenement ML281SA NEWMAN WA 6753			
Local Government Authority		Shire of East Pilbara			
Application documents					
HPCM file reference number:		DWERDT637731			
Key application documents (additional to application form):		Application Form Supporting Documents			
Scope of application/assessment					

Summary of proposed activities or changes to existing operations.	Licence amendment: • Add the South Flank surplus water scheme (South Flank Managed Aquifer Recharge (MAR) scheme and Pebble Mouse Creek Discharge Point) constructed and commissioned under Works Approval W6338/2019/1 (note this does not increase the limit for Category 6); • Extend the Packsaddle Infiltration Pond Trial beyond December 2022, add two new discharge points and increase the volume (note this does not increase the limit for Category 6); • Remove Point L3 as this point has been decommissioned and all Mulla Mulla wastewater is treated via L13/14; and • Allow for the construction and operation of two new putrescible landfill facilities.

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 6: Mine dewatering	34,931,000 tonnes per Annual Period	• Replace the 750 mg/L tot dissolved solids (TDS) lim for the Coondewanna Fla monitoring bores (Table 16 Attachment 5B) with a Electrical Conductivity (EC limit of 1300 µS/cm; • Add the South Flank surplu water scheme (South Flar MAR scheme and Pebb Mouse Creek Discharg Point) constructed an commissioned under Work Approval W6338/2019/1; • Add two additional discharg points (L4 and L5) west of th Packsaddle Infiltratio Ponds; • Allow for up to 16.425 GL/a be discharged between th two additional discharg points (L4 and L5), with n change to the overall si capacity; and • Extend the Packsadd Infiltration Pond Trial to 1 months after construction the additional two discharg points L4 and L5, or by 3 December 2024.
Category 54: Sewage facility	1,138 m^3 per day	• Remove Point L3 as this poi has been decommissione and all Mulla Mul wastewater is treated v L13/14.
Category 89: Putrescible landfill site	5,000 tonnes per Annual Period	• Allow for the construction an operation of two ne putrescible landfill facilities.

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 ☐ No ☒	Referral decision No: Managed under Part V ☐ Assessed under Part IV ☐
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ☒ No ☐	Ministerial statement No: MS1072 EPA Report No: 1610

Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☐ No ☒	Reference No: N/A
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	Certificate of title ☐ General lease ☐ Expiry: Mining lease / tenement ☒ Expiry: Other evidence ☐ Expiry:
Has the applicant obtained all relevant planning approvals?	Yes ☒ No ☐ N/A ☐	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 ☐ No ☒	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes ☐ No ☒	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ☒ No ☐	Application reference No: N/A Licence/permit No: GWL 110044(10)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☐ No ☒	Name: N/A Type: N/A Has Regulatory Services (Water) been consulted? Yes ☐ No ☐ N/A ☒ Regional office: North West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☒	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes ☐ No ☐ N/A ☐
Is the Premises subject to any other Acts or subsidiary regulations (e.g. *Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx*)	Yes ☒ No ☐	*Iron Ore (Mount Goldsworthy) Agreement Act 1964* *Dangerous Goods Safety Act 2004* Dangerous Goods Licence

		DGS017237 *Environmental Protection (Controlled Waste) Regulations 2004*
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ☐ No ☒	N/A
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	N/A
Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*?	Yes ☒ No ☐	Site ID: 10797 Description: Coondewanna Airport Classification: Information Request Date of classification: N/A Site ID: 5154 Description: Marillana Creek (Yandi) Iron Ore Mining Operation. BHP Billiton Iron Ore. Mining Lease 270SA and 47/292. Classification: possibly contaminated – investigation required (PC–IR) Date of classification: 03 December 2014