Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Works Approval Amendment

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

Works Approval Number	W6767/2022/1
Works Approval Holder	Hamersley HMS Pty Ltd
ACN	115 004 129
File Number	DER2022/000660
Premises	Hope Downs 4 Iron Ore Mine – BOO Crushing and Screening Plant Legal description – Part of ML 282SA, NEWMAN WA 6753 As defined by the Premises map in Schedule 1 and the coordinates in Schedule 2 of the Revised Works Approval.
Date of Report	18 October 2024
Proposed Decision	Revised works approval granted

Suzy Roworth

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SENIOR ENVIRONMENTAL OFFICER, RESOURCE INDUSTRIES
INDUSTRY REGULATION (STATE-WIDE DELIVERY)
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Works Approval W6767/2022/1 is held by Hamersley HMS Pty Ltd (Works Approval Holder) for the Hope Downs 4 Iron Ore Mine (the Premises), located at Mining Lease ML 282SA, Newman, Western Australia.

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 Works Approval W6767/2022/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

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

2.2 Application summary

On 24 June 2024, the Works Approval Holder submitted an application to the department to amend Works Approval W6767/2022/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought that relate to changes to components of the Build, Own and Operate (BOO) Crushing and Screening Plant infrastructure including:

- "Secondary crusher" is to be replaced by "secondary crushers" – the plant will have a secondary crushing system consisting of three cone crushers;
- "Lump product stacker" is to be replaced by "lump product conveyors" to allow stacking and reclaim simultaneously over the original design;
- Change of the proposed location for the Evaporation/Sediment Pond x 2 to optimize the directional flow of the catchment;
- Update Figure 2 of W6767/2022/1 to reflect the amended infrastructure layout accordingly; and

The Environmental Commissioning phase to be amended to a three month duration. Hamersley HMS Pty Ltd is also currently licensed under Part V of the *Environmental Protection Act 1986* (EP Act) by Licence L8688/2012/1 for prescribed premises categories 5, 6, 12, 54 and 64.

2.3 Premises description and proposed activities

The Premises is located approximately 30km north of the Newman Township in the Pilbara region in Western Australia. The Premises includes the operation of an above and below the water table greenfields iron ore mine and associated infrastructure. The existing Licence for the Premises (L8688/2012/1) authorises the processing of up to 21 million tonnes per annum (mtpa) of iron ore under prescribed premises category 5.

The Works Approval Holder has approval under W6767/2022/1 for the construction, environmental commissioning and time limited operations of a new BOO Crushing and Screening Plant and product handling facility at the Premises. The operation of the BOO Crushing and Screening Plant will assist in the accelerated ramp up at the Premises for the production of low-grade iron ore.

An assessed production capacity of 6mtpa of iron ore is authorised under W6767/2022/1. The

proposed amendments to the BOO Crushing and Screening Plant and infrastructure layout as outlined under section 2.2 of this report will not result in a change to the previously assessed production capacity or throughput of 6mtpa. The facility will be required 24 hours, 7 days a week for approximately 3.5 years.

The report is limited in scope to the emissions assessed under Part V of the EP Act, specifically dust and stormwater. Note that the project was also assessed under Part IV of the EP Act, with the scope of Ministerial Statement defined in section 2.4 of this report.

2.3.1 Modifications to BOO Crushing and Screening Plant infrastructure

As detailed under Section 2.2, the Works Approval Holder has requested to amend components of the BOO Crushing and Screening Plant and associated infrastructure as specified under Condition 1, Table 1 of W6767/2022/1. A risk-based assessment has been conducted under Table 3 for the proposed construction and operation of the secondary crushing system and lump product conveyors which are the subject of this application. With consideration of the minor changes to the infrastructure components of the plant infrastructure and the Works Approval Holder's controls outlined under Table 1, it is considered the proposed changes to the infrastructure is not likely to significantly change the risk profile of the assessment. However, noting the location of the conveyors intersect a minor perennial watercourse, there is the potential for crushed ore to fall from the conveyors during transportation which may result in sedimentation of the watercourse during operation. The lump loading hoppers will be vibration controlled to regulate the amount of ore on the conveyors to ensure surface water is not environmentally impacted. Daily visual inspections of the conveyors will also be conducted to check for spillage.

The Works Approval Holder advised that whilst the Evaporation/Sediment Pond x 2for the operation were not included under Table 1 of W6767/2022/1, a decision was made to separate the ponds rather than locate them directly next to each other to optimize the directional flow of the catchment. There is no change in the capacity of each of the ponds. A risk assessment has been undertaken in Table 3 for the operation of the ponds during commissioning and time limited operations. Noting there were no controls proposed in Table 1 by the Works Approval Holder for the operation of the ponds, conditions to manage overtopping and seepage potentially impacting on native vegetation and surface water have been placed on the Works Approval to manage this risk.

The location of the BOO Crushing and Screening Plant and infrastructure layout including the Evaporation/Sediment Pond x 2 are shown below in Figure 1.

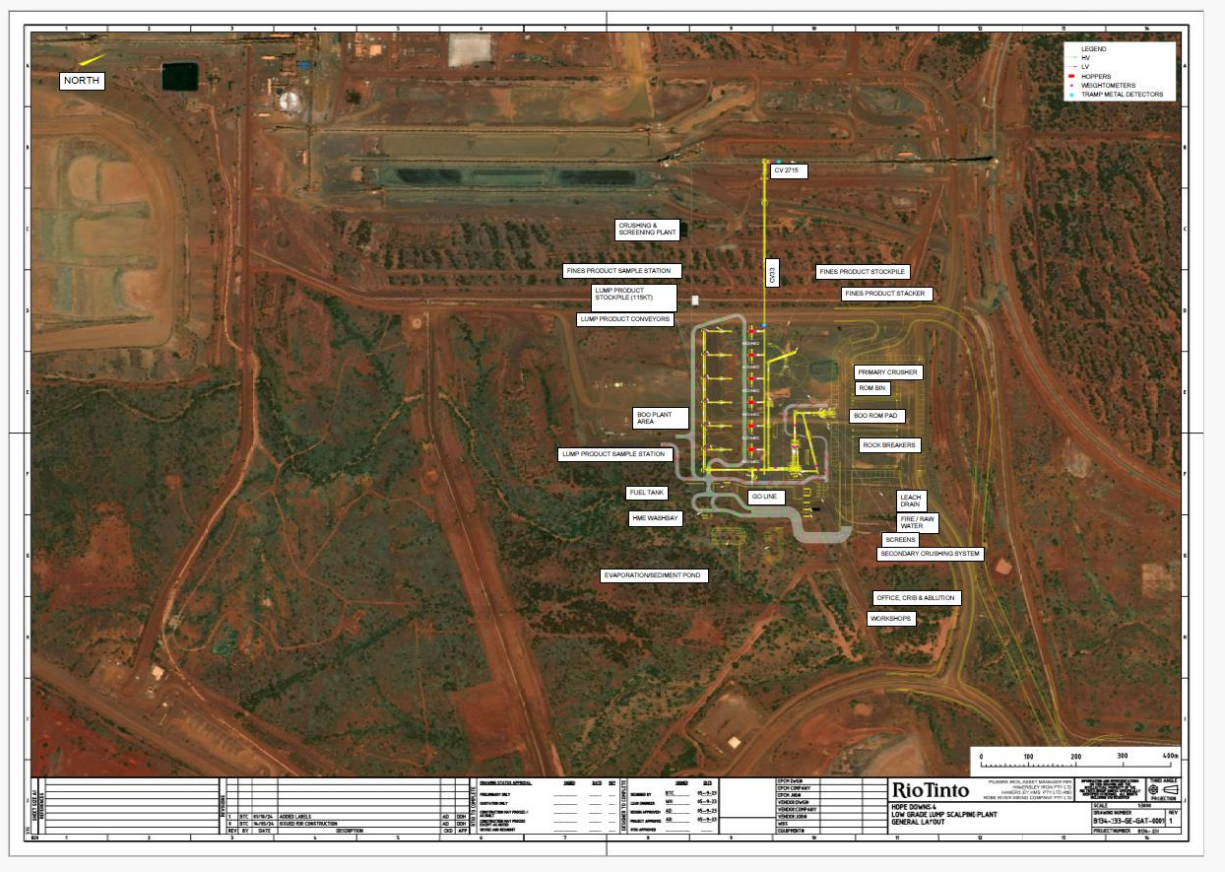

Figure 1: BOO Crushing and Screening Plant and Infrastructure Layout Map

2.3.2 Revised schedule for construction, commissioning and time limited operations

The proposed construction works of the BOO Crushing and Screening Plant have commenced in accordance with the existing works approval granted on 16 May 2023. The construction phase of the BOO Crushing and Screening Plant has been revised to allow for the proposed changes to the plant infrastructure. The proposed construction works are expected to be completed by May 2025, with a three -month environmental commissioning phase following construction as per the commissioning duration period authorised on the works approval.

The Works Approval Holder is required to submit to the department an Environmental Compliance Report and Environmental Commissioning Report in accordance with Conditions 2 and 6 of W6767/2022/1 to demonstrate the requirements of the works approval have been met. The Time Limited Operations phase may commence upon the submission of the Environmental Commissioning Report verifying the environmental performance of the plant infrastructure and dust suppression system.

2.4 Part IV of the EP Act

The Hope Downs 4 Iron Ore Project was referred to the Environmental Protection Authority (EPA) under Section 38 of the EP Act in January 2010 and was assessed at the level of Public Environmental Review (PER). The EPA released its Report and Recommendations (EPA Report 1374) in December 2010. At that time, the EPA decided that the following key environmental factors were relevant to the proposal:

- Groundwater and surface water;
- Flora;
- Fauna; and

- Closure and rehabilitation

The Minister approved implementation of the Hope Downs 4 Iron Ore Project, subject conditions of Ministerial Statement (MS) 854, on 31 January 2011.

The Ministerial Statement includes conditions relevant to the management of:

- Groundwater drawdown;
- Dewatering discharge;
- Water quality;
- Flora and vegetation;
- Fauna;
- Acid and Metalliferous Drainage;
- Rehabilitation; and
- Closure.

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 1 below. Table 1 also details the proposed control measures the Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Works Approval Holder controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction of the secondary crushing system and lump product conveyors	Air/windborne pathway	Rehabilitation of cleared areas will be implemented as construction is completed. Water truck maintained on site to manage dust emissions generated during the construction phase.
	Vehicle movements on unsealed access roads		Vehicle movements through restricted speeds.
Sediment laden stormwater	Construction of lump product conveyors located overlapping a non-perennial watercourse	Overland runoff during high rainfall events	Rehabilitation of cleared areas will be implemented as construction is completed. To ensure that potentially contaminated stormwater is contained and does not mix with uncontaminated water, stormwater diversion bunds and drains will be constructed.
Commissioning and Operation			
Dust	Crushing of ore material using the three cone crushers prior to processing through the BOO Crushing and Screening Plant Transportation of crushed ore material by lump product conveyors	Air/windborne pathway	Dust suppression nozzles will be installed at the ROM bin and at each conveyor loading section and discharge chute. Stacker conveyor chutes will be enclosed as far as practicable. Water truck maintained on site to manage dust emissions generated during the operational phase. Vehicle movements through restricted speeds.
Sediment laden stormwater	Crushing of ore material using the three cone crushers prior to processing through the BOO Crushing and Screening Plant Crushed ore material falling from the lump product conveyor belts during transportation	Overland runoff of ore material during high rainfall events	Potential sediment laden stormwater will be managed on site via bunds and surface water diversions. Clean stormwater run-off and potentially sediment loaded run-off from the plant are separated to the extent achievable by applying Rio Tinto Standard specification SS-N102 Sediment Control and Separation Drainage sumps to settle out sediments prior to discharge from the plant area. Potentially contaminated water will be

Emission	Sources	Potential pathways	Proposed controls
Construction			
			directed to the sediment ponds via surface land contour management and stormwater diversion drains. Oily water separators (centrifugal type or similar) to separate out hydrocarbons from surface water. Hydrocarbon storage areas and refueling facilities to have secondary containment to ensure spills are contained.
Mine process water and sediment laden stormwater	Operation of Evaporation/Sediment Pond x 2	Overtopping and seepage	Originally no controls were provided by the Works Approval Holder as part of the application, however, the Works Approval Holder has since confirmed implementation of the following controls: A minimum operational freeboard of 0.5m (Pond 1) and 0.68m (Pond 2) must be maintained to ensure storage capacity is not exceeded. Evaporation/Sediment Pond x 2 to be maintained with a 1.5mm HDPE liner with a permeability of 1 x $1x10^{-9}$ m/s or less. Daily visual inspections to ensure freeboard capacity is available and no potential embankment seepage. The Evaporation/Sediment Pond x 2 must be regularly inspected and pumped out to remove excess sediment to prevent overflowing of contaminated stormwater. Potentially contaminated water will be directed to the Evaporation/Sediment Pond x 2 via surface land contour management and stormwater diversion drains.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Works Approval 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 2 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 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Closest residential premises: Township of Newman	Approximately 30 km to the south of the Prescribed Premises. **Screened out as receptor due to distance.**
Marillana Pastoral Lease (P072910)	Approximately 12 km to the north east of the Prescribed Premises. **Screened out as receptor due to distance.**
Environmental receptors	**Distance from prescribed activity**
Rights in Water and Irrigation Act 1914	The Premises lies within the Proclaimed Pilbara Groundwater and Surface Water Areas.
Groundwater	Depth to groundwater ranges from 45 metres below ground level (mbgl) to 20 mbgl. **Screened out as a receptor due to depth to groundwater.**
Surface waterlines	A minor non-perennial watercourse that is a tributary of the Coondiner Creek is located approximately 350m east of the plant and intersects the lump feed/stacker conveyors.
Priority flora species	Several Priority (P) flora species have been recorded within the prescribed premises boundary during previous vegetation and flora surveys of the project area including: • One P2 species (*Isotropis parviflora*); • Eight P3 species (*Acacia subtiliformis, Goodenia* sp. *East Pilbara* (A.A. Mitchell PRP 727), *Rhagodia sp. Hamersley* (M. Trudgen 17794), *Gymnathera cunninghamii*, *Phyllanthus hebecarpus*, *Themada* sp. *Hamersley Station* (M.E. Trudgen 11431), *Goodenia purpurascens*, *Aristida jerichoensis* var. *subspinulifera*; and • Three P4 species *Lepidium catapycnon*, *Eremophila magnifica* subsp. *Magnifica*, *Eremophila youngii* subsp. *Lepidota*. A review of the Department of Biodiversity, Conservation and Attractions (DBCA) database indicates that the closest priority flora species is *Goodenia* sp. East Pilbara (A.A. Mitchell PRP 727) (P3) located 1.34 kilometres north of the BOO Crushing and Screening Plant. None of the conservation significant flora species listed above have been recorded close to the BOO Crushing and Screening Plant or the proposed location of the lump feed/stacker conveyors. Figure 3 depicts the location of conservation significant flora species in proximity to the works approval boundary.
Conservation significant fauna species	Based on previous fauna surveys undertaken of the project

	area, five species of conservation significance have been recorded or are considered likely to occur within the prescribed premises boundary including: • Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia*) (listed as 'Vulnerable' under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC) and *Biodiversity Conservation Act 2016* (BC Act), • Ghost Bat (*Macroderma gigas*) (listed as 'Vulnerable' under the EPBC and BC Act), • Grey Falcon (*Falco hypoleucos*) (listed as 'Vulnerable' under the BC Act), • Peregrine Falcon (*Falco peregrinus*) (listed as 'Other specially protected fauna' under the BC Act), and • Western Pebble-mound Mouse (*Pseudomys chapmani*) (P4). None of the fauna habitats or records of the above conservation significant fauna species listed above have been recorded close to the BOO Crushing and Screening Plant or the proposed location of the lump feed/stacker. The closest conservation significant fauna records identified during fauna surveys of the project area are the Western Pebble-mound and an opportunistic sighting of the Peregrine Falcon recorded approximately 1.6 km from the BOO Crushing and Screening Plant and associated infrastructure. Figure 2 depicts the location of conservation significant fauna species in proximity to the works approval boundary.

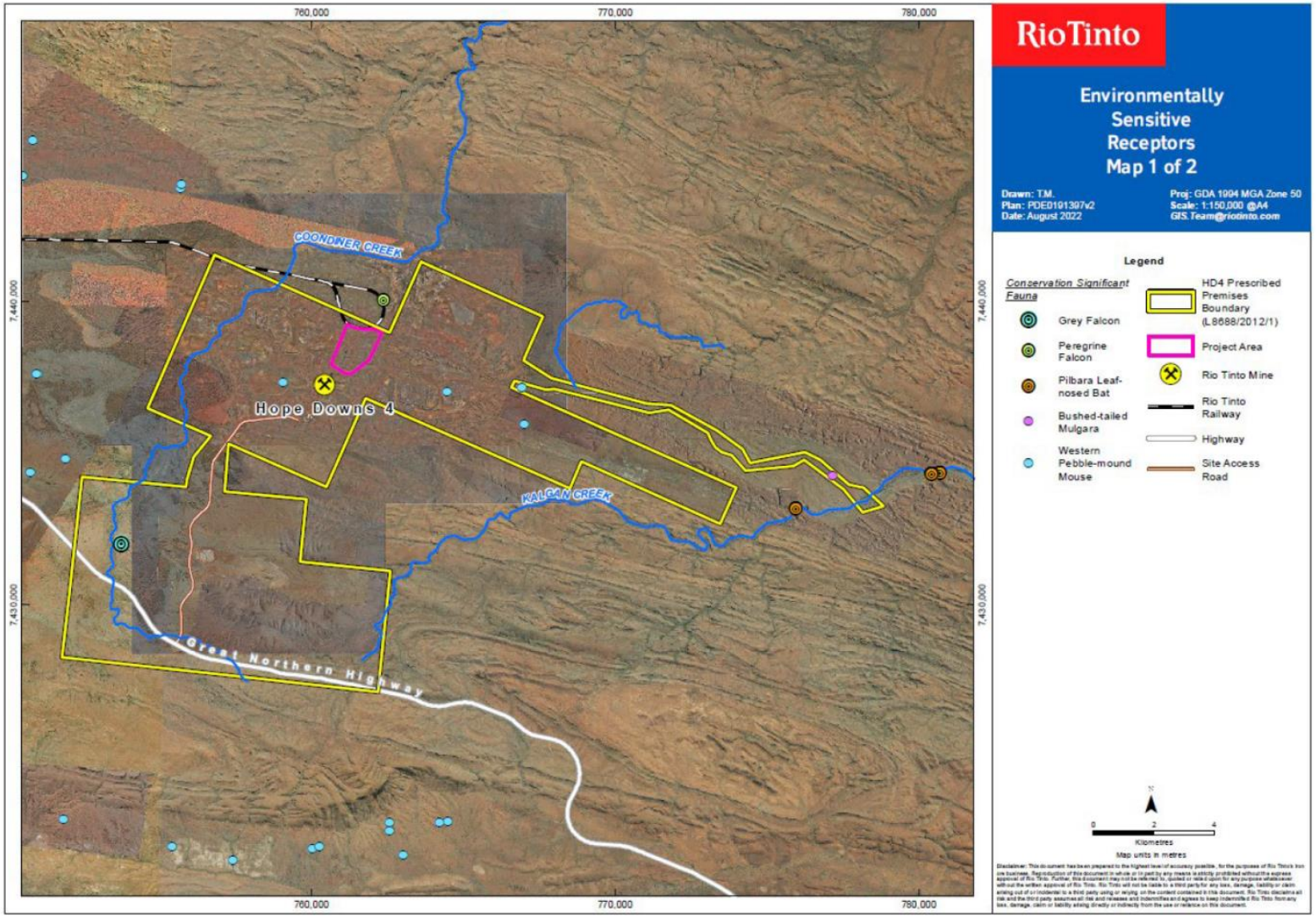

Figure 2: Distance to sensitive receptors (Conservation significant fauna)

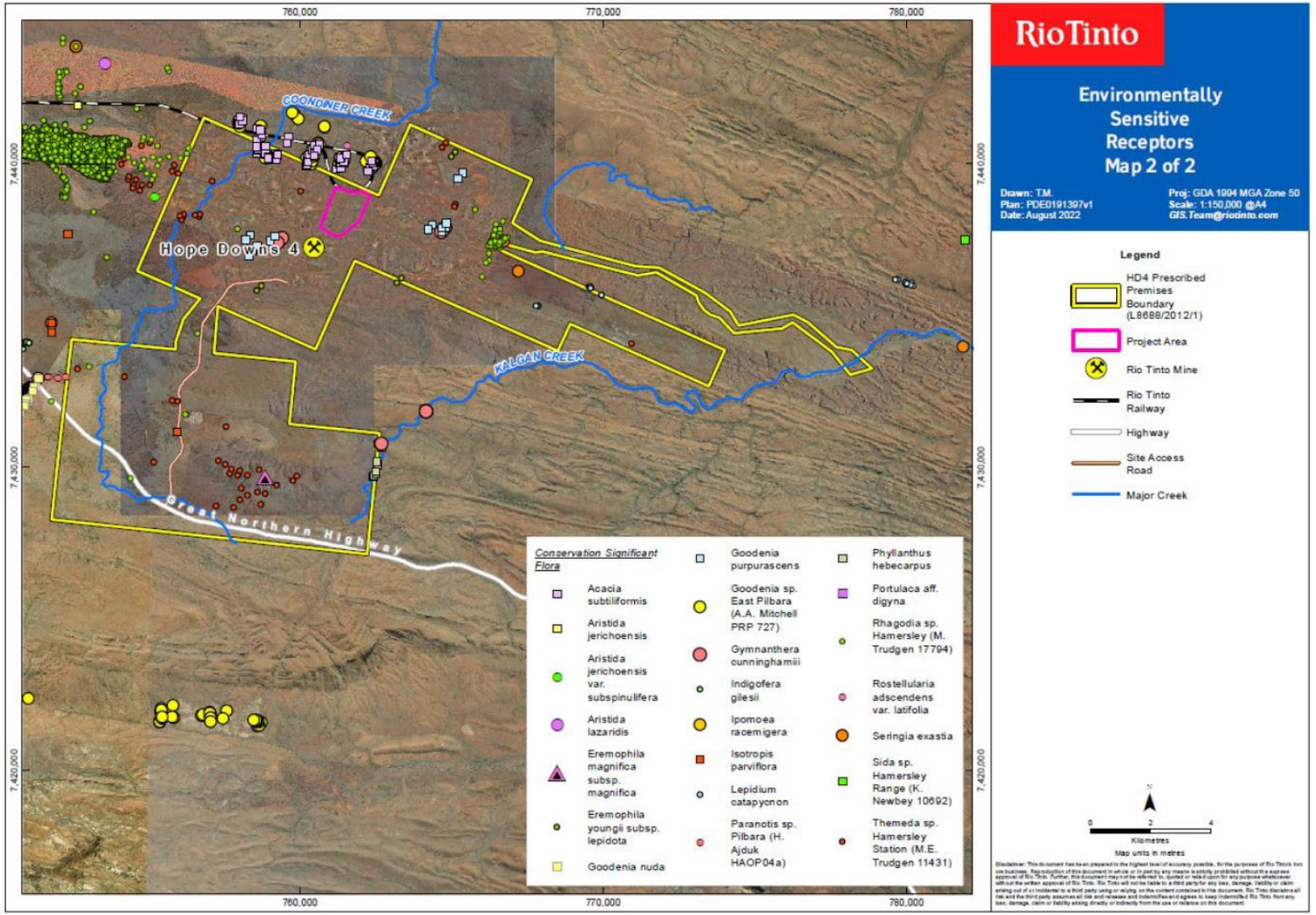

Figure 3: Distance to sensitive receptors (Conservation significant flora)

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.

The Revised Works Approval W6767/2022/1 that accompanies this Amendment Report authorises construction and time-limited operations. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the Premises i.e. Category 5 crushing and screening activities. A risk assessment for the operational phase has been included in this Amendment Report, however licence conditions will not be finalised until the department assesses the licence application.

Table 3: Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Works Approval Holder's controls**				
Construction								
Construction of a secondary crushing system consisting of three cone crushers	Dust	Air/windborne pathway causing impacts vegetation	Native Vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
Construction of lump product conveyors	Dust	Air/windborne pathway causing impacts to vegetation	Native Vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
	Sediment laden stormwater	Increased sedimentation into the environment through overland water flow impacting on the quality of surface water bodies	Location of the conveyors overlaps a non-perennial watercourse.	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
Commissioning and Operation (including Time Limited Operations)								
Crushing of ore material using the three cone crushers prior to processing through BOO Crushing and Screening Plant	Dust	Air/windborne pathway causing impacts vegetation	Native Vegetation	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1, Table 1 Design and construction/installation requirements, requires dust suppression sprays and covers Condition 5, Table 2	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Works Approval Holder's controls**				
							Environmental Commissioning Requirements, requires dust suppression sprays to be tested Condition 10, Table 3 Infrastructure and equipment during time limited operations, requires dust suppression sprays maintained and operated	
	Sediment laden stormwater	Overland runoff of ore material during high rainfall events causing contamination of surface watercourses and groundwater if not properly contained.	Surrounding soils and groundwater Non-perennial watercourse located 350 metres east of crusher.	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1, Table 1 Design and construction/installation requirements, requires stormwater management infrastructure Condition 5, Table 2 Environmental Commissioning Requirements, requires stormwater management Condition 10, Table 3 Infrastructure and equipment during time limited operations, requires freeboard, inspections	N/A
Operation of lump product conveyors to transport	Dust	Air/windborne pathway causing	Native Vegetation	Refer to	C = Moderate	Y	Condition 1, Table 1 Design and	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Works Approval Holder's controls**				
crushed ore material		impacts to vegetation Ore material falling from the conveyor belts during transportation impacting vegetation		Section 3.1	L = Unlikely **Medium Risk**		construction/installation requirements, requires dust suppression sprays and covers Condition 5, Table 2 Environmental Commissioning Requirements, requires dust suppression sprays to be tested Condition 10, Table 3 Infrastructure and equipment during time limited operations, requires dust suppression sprays maintained and operated	
	Sediment laden stormwater and hydrocarbons	Overland runoff of ore material during high rainfall events causing contamination of surface watercourses and groundwater if not properly contained.	Location of the conveyors overlaps a non-perennial watercourse	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1, Table 1 Design and construction/installation requirements, requires stormwater management infrastructure and hydrocarbons management Condition 5, Table 2 Environmental Commissioning Requirements, requires stormwater management Condition 10, Table 3	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Works Approval Holder's controls**				
							Infrastructure and equipment during time limited operations, requires freeboard, inspections	
Operation of the Evaporation/Sediment Pond x 2	Sediment laden stormwater and mine process water	Overtopping of the ponds causing direct discharge and potential overland runoff causing impacts to native vegetation and surface water.	Native Vegetation Minor non-perennial watercourse intersects the ponds	Works Approval Holder has not provided any controls.	C = Minor L = Unlikely **Medium Risk**	N	**Condition 10, Table 3 Infrastructure and equipment requirements during time limited operations, requires freeboard, daily inspections and excess sediment in ponds to be removed.**	There is a risk of overtopping if the holding capacity of the ponds is exceeded or during a significant rainfall event. Noting a non-perennial watercourse intersects the location of the ponds, there is a risk of contaminated stormwater or mine process water impacting upon surface water or adjacent native vegetation if overtopping was to occur. An operational requirement has been added during Time Limited Operations to maintain a 0.5m freeboard within each pond to prevent overtopping and inspect the ponds to confirm the required freeboard capacity is available. The operational requirement to regularly inspect and pump out the Evaporation/Sediment Pond x 2 to remove excess sediment to prevent overtopping of contaminated stormwater has also been included as an additional regulatory control under Time Limited Operations.
		Seepage of	Native vegetation	Works	C = Minor	N	**Condition 10, Table 3**	Inclusion of an operational

Risk Event					Risk rating[1] C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Works Approval Holder's controls**				
		contaminated stormwater and mine process water through base and embankments of the ponds causing impact to vegetation.	Minor non-perennial watercourse intersects the ponds	Approval Holder has not provided any controls.	L = Unlikely **Medium Risk**		**Infrastructure and equipment requirements during time limited operations, requires daily inspections ponds to be lined with 1.5mm HDPE liner**	requirement to undertake daily visual inspections to ensure there is no potential embankment seepage. The Evaporation/Sediment Pond x 2 are required to be maintained with a 1.5mm HDPE liner to manage any potential impacts of seepage.

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

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

4. Conclusion

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

4.1 Summary of amendments

Table 4 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

Table 4: Summary of works approval amendments

Condition no.	Proposed amendments
Works Approval History	Updated works approval number.
Works Approval History	Added the following amendment to the works approval history: • Construction of a secondary crushing system consisting of three cone crushers; • Construction of lump product conveyors; and • Amend the location of the Evaporation/Sediment Pond x 2 at the Premises.
Condition 1 (Table 1): Infrastructure and Equipment	• Amended the components of the BOO Crushing and Screening Plant and associated infrastructure, namely to include a “Secondary Crushing System” and “Lump product conveyors”; • Amended the infrastructure location to reflect the updated maps included in Schedule 1; • Amended Table 1 to have two separate items for clarity. Item 1 relates to the BOO Crushing and Screening Plant and associated infrastructure, and Item 2 relates to the stormwater management infrastructure; and • Inclusion of uncontaminated stormwater management condition as proposed by the Works Approval Holder.
Condition 10 (Table 3): Infrastructure and equipment requirements during time limited operations	Inclusion of operational requirements condition for the operation of the Evaporation/Sediment Pond x 2 including: • Maintenance of an operational freeboard of 0.5m on each pond; • Daily visual inspections of ponds to ensure freeboard capacity is available and no potential embankment seepage; and • Regular inspection of Evaporation/Sediment Pond x 2 to remove excess sediment to prevent overflowing.
Schedule 1, Figure 1: Premises map	Premises Map updated that depicts a clearer and zoomed image of the prescribed premises boundary.
Schedule 1, Figure 2: BOO Crushing and Screening Plant and Infrastructure Layout Map	BOO Crushing and Screening Plant and Infrastructure Layout Map updated to depict updated location of the Evaporation/Sediment Pond x 2.
Schedule 1, Figure 3: BOO Crushing and Screening Plant schematic drawing	Inclusion of BOO Crushing and Screening Plant and associated infrastructure schematic drawing as it depicts the location of the lump stacker conveyor and conveyors for the operation.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Rio Tinto 2024, Hope Downs 4 Iron Ore Mine – W6767/2022/1 Amendment Application – Amendment to Condition 1 (Table 1) – Item Numbers 1.1 and 1.2, dated 24 June 2024, DWER Reference: A2290464.

Appendix 1: Summary of Works Approval Holder's comments on risk assessment and draft conditions

Condition	Summary of Works Approval Holder's comment	Department's response
Works Approval		
Condition 1 (Table 1), Item 1: Design and Construction/installation requirements for BOO Crushing and Screening Plant DWER proposed to amend the infrastructure location specified under Table 1 so that the location of all associated infrastructure to the BOO Crushing and Screening Plant could be identified in the figures provided under Schedule 1. As part of this request, DWER asked for an updated image of Figure 3 of better quality.	The Works Approval Holder noted and accepted DWER's proposed changes to infrastructure location. The Works Approval Holder provided an updated Figure 3 with increased clarity of the BOO Crushing and Screening Plant Project area with a green rectangle overlay with coordinates to define the boundary of the project area and request the wording be changed to reflect the change.	The Delegated Officer considers that the updated Figure 3 provided by the Works Approval Holder would be best used to replace Figure 2 of the draft works approval, as this details the proposed layout of the BOO Crushing and Screening Plant and infrastructure, however with further detail. Therefore, the schematic drawing of the BOO Crushing and Screening Plant and Infrastructure (Figure 3) in the original works approval has been removed and Figure 2 has been replaced with the updated Figure 3 provided by the Works Approval Holder. Table 1 has been amended to refer to the infrastructure location under Schedule 1, Figure 1 and Figure 2.
Condition 1 (Table 1), Item 2: Design and Construction/installation requirements for Stormwater Management DWER proposed to amend Table 1 by separating the requirements for Stormwater Management under another item number and included Works Approval Holder's additional controls.	The Works Approval Holder noted and accepted DWER's proposed changes to Table 1, Item 2 for Stormwater Management. The Works Approval Holder provided Stormwater Management Plan to show surface grading at BOO Crushing and Screening Plant and bunding to Evaporation/Sediment Pond x 2.	The proposed changes to Table 1 of the works approval have been amended accordingly.
Condition 5 (Table 2): Environmental commissioning requirements for BOO	The Works Approval Holder has requested that the authorised commissioning duration be amended from a period not exceeding 60 calendar days in aggregate to a period not exceeding 90 calendar days in	The Delegated Officer accepts the Works Approval Holder's request to amend the environmental commissioning duration and has amended Condition 5 (Table 2) of the works approval

Condition	Summary of Works Approval Holder's comment	Department's response
Crushing and Screening Plant.	aggregate.	accordingly.
Condition 10 (Table 3) Items 1 to 3: Infrastructure and equipment requirements for Time Limited Operations for Sediment and Evaporation ponds. DWER included an additional item in Table 3 that outlines the operational requirements for the sediment and evaporation ponds being to maintain an operational freeboard on each pond, undertake daily inspections and pump out sediment. DWER requested the Works Approval Holder provide further information on the storage capacity and design of the ponds, including permeability.	The Works Approval Holder noted and accepted DWER's proposed changes to Table 3 which outline the operational requirements of the Evaporation/Sediment Pond x 2. The Works Approval Holder provided further details on the operational freeboard for each pond and referred to the updated Figure 3 provided for infrastructure location. The Works Approval Holder provided additional information on how the permeability of the ponds will be managed with a 1.5mm HDPE liner on sand bedding and original compacted ground. Reference drawings were provided for freeboard information and storage volume/design.	Condition 10 (Table 3), Item 2 of the works approval has been amended to include additional information on freeboards and the operational requirement to maintain liners on the ponds. The infrastructure location has been amended to refer to Figure 1 and Figure 2 of Schedule 1 of the works approval. The definition of HDPE was included in the definitions table (Table 4) of the works approval.
Schedule 1, Figure 2 and Figure 3 of the works approval: BOO Crushing and Screening Plant layout map DWER requested the Works Approval Holder provide an updated better-quality image of the schematic drawing under Figure 3 in the draft works approval.	As noted above, the Works Approval Holder provided an updated Figure 3 with increased clarity of the BOO Crushing and Screening Plant Project area with a green rectangle overlay with coordinates to define the boundary of the project area and request the wording be changed to reflect the change.	As noted above, the schematic drawing of the BOO Crushing and Screening Plant and Infrastructure Layout (Figure 3) in the original works approval has been removed and Figure 2 has been replaced with the updated Figure 3 provided by the Works Approval Holder.
Schedule 2: Table 5: Premises Boundary – GPS coordinates	The Works Approval Holder has requested to amend the wording for the description of Table 5 to stipulate that the polygon of the premises boundary is defined by the coordinates listed in Table 5.	The Delegated Officer does not consider it necessary to amend the description of Table 5 noting the description for the Premises Map stipulates that the boundary of the Premises is

Condition	Summary of Works Approval Holder's comment	Department's response
DWER requested that the Works Approval Holder provide updated GIS coordinates in GDA 94 Zone 50 format of the amended prescribed premises boundary.		shown in pink within the map (Figure 1 of Schedule 1). Table 5 of Schedule 2 has been amended accordingly with the Premises boundary GIS coordinates provided by the Works Approval Holder accordingly.
Amendment Report		
Section 2.3.1 of the amendment report: Modifications to BOO Crushing and Screening Plant infrastructure DWER requested that the applicant advise of the controls around material handling for conveyors to ensure surface water is not environmentally impacted.	The Works Approval Holder advised that the controls for conveyor materials handling are through the lump loading hoppers being vibration controlled to regulate the amount of ore on the conveyor belt and for daily inspections to be conducted to check for spillage.	Section 2.3.1 of the amendment report updated accordingly with the additional information provided by the applicant.
Figure 1: BOO Crushing and Screening Plant and Infrastructure Layout Map Section 2.3.2 of the amendment report: Revised schedule for construction, commissioning and time limited operations DWER requested the applicant advise of the duration of the commissioning timeframe as three months was stated in the supporting documentation, however the works approval stipulates 60 days.	The Works Approval Holder requested that the duration of the environmental commissioning timeframe be amended to from two months to three months.	Figure 1 of the amendment report has been updated with the updated figure provided by the applicant that includes all infrastructure associated to part V activities and additional labelling of infrastructure. The wording of Section 2.3.2 of the amendment report has been updated to allow for a three-month environmental commissioning duration. The Application summary (Section 2.2 of the amendment report) has been updated to include this additional proposed amendment to the works approval.
Section 3.1.1 Table 1 of the	The Works Approval Holder requested the additional control for sediment	Table 1 of the amendment report was updated accordingly with

Condition	Summary of Works Approval Holder's comment	Department's response
amendment report: Works Approval Holder controls for sediment laden stormwater DWER requested that the applicant confirm that potentially contaminated water will be directed to the sediment pond via stormwater diversion drains.	laden stormwater during commissioning and operation be included under Table 1: "Potentially contaminated water will be directed to the sediment pond via surface land contour management and stormwater diversions drains".	the applicant's additional control to manage impacts of sediment laden stormwater during commissioning and operation. Condition 10 (Table 3) of the works approval: 'Infrastructure and equipment requirements during time limited operations' has been updated to include the applicant's additional control.
Section 3.2 (Table 3) of the amendment report: Risk Assessment for the commissioning and operation of the sediment and evaporation ponds DWER requested that the applicant advise of the pond lining of the sediment and evaporation ponds.	The Works Approval Holder advised that the Evaporation/Sediment Pond x 2 are to be lined with a 1.5mm HDPE liner. The Works Approval Holder requested that additional wording consistent with Condition 10 (Table 3) of the works approval be inserted under the conditions of the works approval in Table 3 of the amendment report for the operation of the Evaporation/Sediment Pond x 2.	Section 3.2: Table 3 of the Amendment Report updated accordingly with the additional information provided by the applicant. The Delegated Officer considers that additional wording under the conditions of the works approval in Table 3 of the amendment report is not required as the conditions are stipulated in detail under the justification for additional controls column in Table 3 as well as in Table 3 of the works approval.