



## Application for Works Approval Amendment

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

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Works Approval Number	W6358/2020/1
Works Approval Holder	Wonmunna Iron Ore Pty Ltd
<b>ACN</b>	169 151 777
<b>File Number</b>	DER2019/000649
<b>Premises</b>	Wonmunna Iron Ore Project  Tenement M47/1424  As defined by the maps attached to the Revised Works Approval
<b>Date of Report</b>	23 November 2021
<b>Decision</b>	Revised works approval granted

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

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## 1. Decision summary

Works Approval W6358/2020/1 is held by Wonmunna Iron Ore Pty Ltd (Works Approval Holder) for the Wonmunna Iron Ore Project (the Premises), located at Mining tenement M47/1424.

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 W6358/2020/1 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 13 September 2021, the Works Approval Holder submitted an application to the department to amend Works Approval W6358/2020/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- The construction of an 'All In Fines' (AIF) facility to maintain ore production on site.

This upgrade will not increase the currently approved Category 5 throughput of 10 million tonnes per annum, it is an addition of an AIF facility to the existing ore handling plant facility.

The requirement for the upgrade is a result of changes in process driven primarily by the moisture content and friability of the ore being mined and continued efforts to realise the approved production capacity of the existing plant. This is not a capacity change, but a change in product output to 100% fines, from the same ore feed. There will be no change in the final product moisture content which sits at around 12-14% due to the proposed process modification.

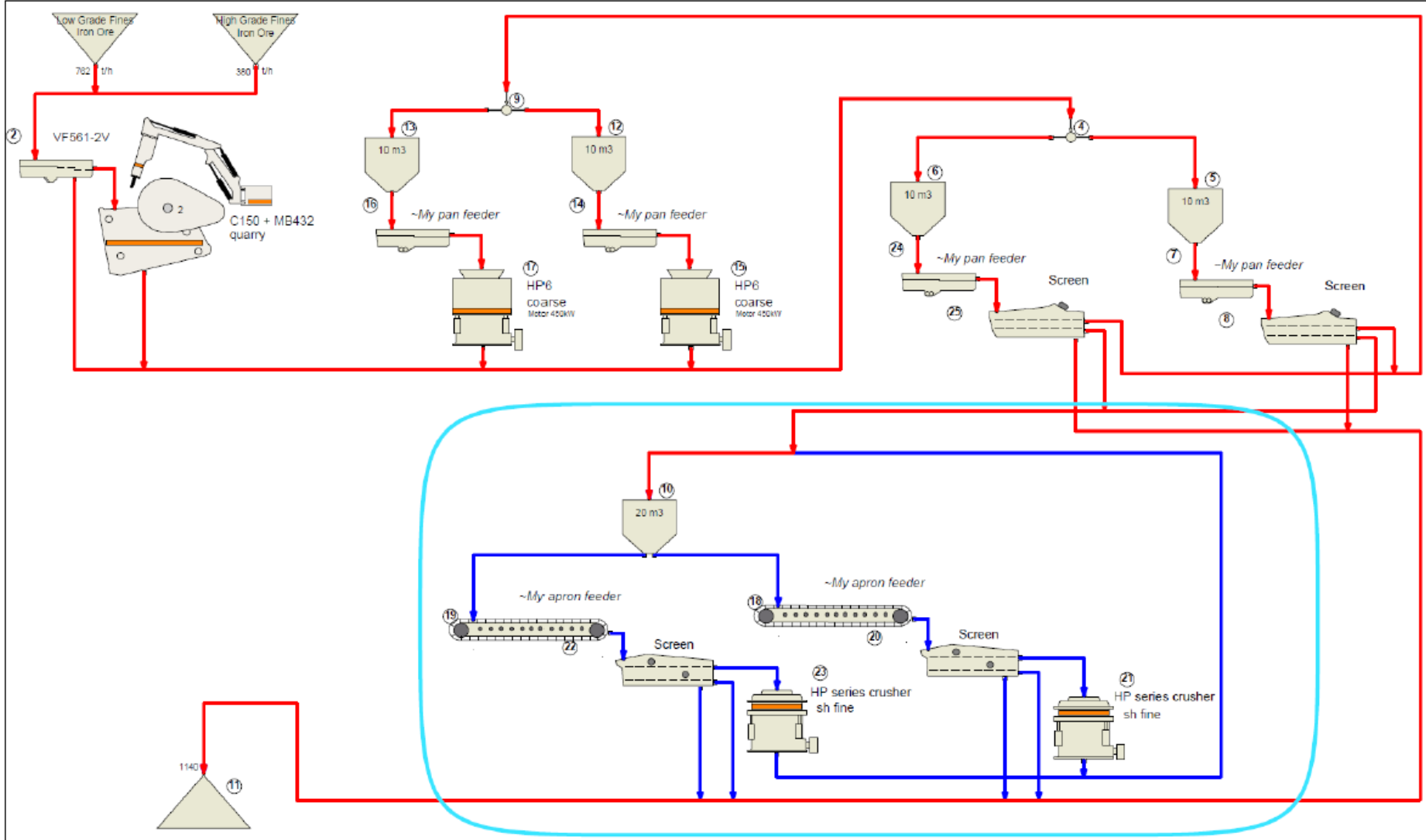
The AIF facility comprises of the following components:

- Two tertiary crushers;
- Two apron feeders;
- Two screens; and
- Additional conveyors.

The currently approved infrastructure and the proposed changes to the infrastructure are compared in Table 1.

**Table 1: Approved and proposed ore handling plant infrastructure requirements**

<b>W6358/2020/1 Infrastructure</b>	<b>Proposed amendment</b>
Compacted earth pad	No change
ROM bin	No change
Vibrating grizzly feeder	No change
Primary crusher	No change
Rock breaker	No change
Five pan feeders (secondary screening, secondary crushing and lump re-screening)	<b>Four pan feeders (secondary screening and secondary crushing)</b>
Conveyors	No change
Primary screen – two triple dec elliptical screens	No change
Two secondary crushers	No change
Two radial stackers (fines and lump)	No change
Lump re-screening facility	<b>All in Fines (AIF) facility including two tertiary crushers, two screens and two belt feeders.</b>



Wonmunna All Fines 10 Mtpa Process Flow Diagram

Figure 1: All-in-fines facility

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### 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 Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

**Table 2: Works Approval Holder controls**

Emission	Sources	Potential pathways	Proposed controls
Dust	Crushing of material, vehicle movements, lift-off from stockpiles and/or stored product, earthworks etc.	Air/ windborne pathway	<ul style="list-style-type: none"> <li>Siting – the OHP is to be located approximately 480 m (or greater) to the west of Weeli Wolli Creek.</li> <li>Manage vehicle speed limits.</li> <li>Monitoring of operational and weather (wind) conditions to support dust management.</li> <li>Water trucks will be used to manage dust emissions from cleared areas and roads, and at the ore stockpile area, hardstand areas and bare areas.</li> <li>OHP design includes components to manage dust including - sprinklers on crushers and screens and shields/covers on transfer points.</li> <li>Incident reporting system.</li> <li>Dust will be visually assessed and continue to be monitored daily. If excessive dust generation is observed or recorded, the source will be investigated, and remedial actions implemented as required.</li> <li>Dust monitoring adjacent to OHP and AIF facility with data accessible to the site team.</li> </ul>
Noise	Crushing and screening of material	Air/ windborne pathway	<ul style="list-style-type: none"> <li>Noise emissions to be managed in accordance with the Environmental Protection (Noise) Regulations 1997.</li> <li>Noise attenuating equipment will be used, where practicable, to minimise noise during operation.</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> <li>Regular servicing/maintenance of equipment.</li> <li>The nearest sensitive receptor is &gt;10km away.</li> </ul>

### 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 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**

Environmental receptors	Distance from prescribed activity
Underlying groundwater	The water table is at a depth of 20 mbgl or greater. Not considered a receptor.
Native fauna	Conservation significant fauna which could potentially occur within the premises boundary: <ul style="list-style-type: none"> <li><i>Dasyurus hallucatus</i> (Northern Quoll) – Endangered</li> <li><i>Pseudomys chapmani</i> (Western Pebble Mound Mouse) – Priority 4</li> <li><i>Leggadina lakedownensis</i> (Northern short tailed mouse) – Priority 4</li> <li><i>Underwoodisaurus seorsus</i> (Pilbara barking gecko) – Priority 2</li> </ul>
Native vegetation	CPS 6216/1 applies in the area for clearing. No Priority species were identified within the area of the Native vegetation present in the area.

## 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 Works Approval 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 Works Approval Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the Works Approval 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 Works Approval W6358/2020/1 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 and 54 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 4. Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions of Works Approval	Justification for regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
<b>Construction</b>								
<b>Category 5:</b> Installation of All-In-Fines facility	Noise	Air/windborne pathway to conservation significant and other fauna in the vicinity of the ore handling plant resulting in localised displacement of fauna	Conservation significant and other fauna	Refer to Section 3.1	C = Slight L = Possible <b>Low Risk</b>	Y	No new conditions proposed.  Table 1 is to be amended to include the new infrastructure.	The addition of an AIF facility does not introduce any new key emission sources or significantly increase any existing sources.  Given the moisture content of the ore (12 to 14%), it is unlikely that dust emissions will be excessive.  Noise emissions are consistent with existing infrastructure and will be managed in accordance with the Environmental Protection (Noise) Regulations 1997.  The Works Approval Holder will manage dust and noise impacts in the same manner as identified in the original Works Approval decision report. No additional conditions considered necessary.
	Dust	Air/windborne pathway to native vegetation / fauna habitat in areas surrounding the ore handling plant footprint resulting in the degradation of vegetation condition and fauna habitat over time	Native vegetation / fauna habitat in areas surrounding the ore handling plant footprint	Refer to Section 3.1	C = Slight L = Rare <b>Low Risk</b>	Y		

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions of Works Approval	Justification for regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
<b>Commissioning and operation</b>								
<b>Category 5</b> Commissioning and operation of All-In-Fines facility	Noise	Air/windborne pathway to conservation significant and other fauna in the vicinity of the ore handling plant resulting in localised displacement of fauna	Conservation significant and other fauna	Refer to Section 3.1	C = Slight L = Possible <b>Low Risk</b>	Y	No new conditions proposed.  Table 1 is to be amended to include the new infrastructure.	The addition of an AIF facility does not introduce any new key emission sources or significantly increase any existing sources.  Given the moisture content of the ore (12 to 14%), it is unlikely that dust emissions will be excessive.  Noise emissions are consistent with existing infrastructure and will be managed in accordance with the Environmental Protection (Noise) Regulations 1997.  The Works Approval Holder will manage dust and noise impacts in the same manner as identified in the previous Works Approval decision report. No additional conditions considered necessary.
	Dust	Air/windborne pathway to native vegetation / fauna habitat in areas surrounding the ore handling plant footprint resulting in the degradation of vegetation condition and fauna habitat over time	Native vegetation / fauna habitat in areas surrounding the ore handling plant footprint	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y		

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. Consultation

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

**Table 5: Consultation**

Consultation method	Comments received	Department response
Works Approval Holder was provided with draft amendment on (17/11/2021)	<p>Comments received on 19/11/2021 with waiver of rest of 21 day period.</p> <p>Comments:</p> <ul style="list-style-type: none"> <li>OHP design includes components to manage dust including – sprinklers on crushers and screens and shield/covers on transfer points.</li> <li>Monitoring will be completed using an automated DustTrak II Aerosol 8530 system. This unit is set to sample nominally at 15 minute intervals. The data from this unit is mirrored via an on-line portal accessible by the site team.</li> </ul>	<p>Response to comments:</p> <ul style="list-style-type: none"> <li>Table 2 of Amendment Report and Table 1 works approval W6358/2020/1 updated to include changes to dust management and monitoring.</li> </ul>

## 5. 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.

### 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 Works Approval as part of the amendment process.

**Table 6: Summary of licence amendments**

Condition no.	Proposed amendments
Works approval history	A table of the history of the works approval is added.
Condition 1, Table 1	<p>Number and position of pan feeders amended.</p> <p>Lump re-screening facility removed.</p> <p>All in Fines (AIF) facility included</p> <p>Dust control fittings details amended</p>

## 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. Department of Water and Environmental Regulation (DWER) 2021, *Guideline: Dust emissions (Draft)*, Perth, WA.

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)			
<b>Application type</b>			
Amendment to works approval	<input checked="" type="checkbox"/>	Current works approval number:	W6358/2020/1
Date application received		13/09/2021	
<b>Applicant and Premises details</b>			
Applicant name/s (full legal name/s)		Wonmunna Iron Ore Pty Ltd	
Premises name		Wonmunna Iron Ore Project	
Premises location		Mining Tenement M47/1424	
Local Government Authority		Shire of Ashburton	
<b>Application documents</b>			
HPCM file reference number:		DER2019/000649	
Key application documents (additional to application form):		20210913_W6358_WAA_Supporting Document_Rev0	
<b>Scope of application/assessment</b>			
Summary of proposed activities or changes to existing operations.		<p>Works approval amendment</p> <p>Proposed construction of All In Fines (AIF) Facility</p> <p>Proposed design includes</p> <p>Four pan feeders (secondary screening and secondary crushing)</p> <p>AIF facility including two tertiary crushers, two screens and two belt feeders.</p>	
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 5: Processing or beneficiation of metallic or non-metallic ore.	<p>10 million tonnes per annum Lump and fines iron ore processing.</p> <p>Approved design includes</p> <p>Five pan feeders (secondary screening, secondary crushing and limp re-screening)</p> <p>Lump re-screening facility</p>	No change to production capacity.	
<b>Legislative context and other approvals</b>			

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Mining lease / tenement <input checked="" type="checkbox"/> M47/1424 Expiry: 30/04/2033
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: Expiry date: If N/A explain why? Mining Tenure
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input type="checkbox"/>	CPS No: 6216/1
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Licence/permit No: GWL204222(1)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Name: N/A
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/landuse compatible with the PDWSA (refer to <u>WQPN 25</u> )? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

<p>Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>Mining Act 1978 Environmental Protection (Noise) Regulations 1997. RIWI Act – Proclaimed Pilbara Surface and Groundwater area</p>
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Classification: <b>N/A</b></p>