

# **Decision Report**

## **Application for Works Approval**

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

Works Approval Number W6643/2021/1

Applicant Pilbara Iron Company (Services) Pty Ltd

**ACN** 107 210 248

File number DER2021/000744

**Premises** Paraburdoo Iron Ore Mine, Eastern Range Project and the

Western Range Project

AML70/246, L47/326, AG70/4, AG70/14 and AML70/4

**ROCKLEA WA 6751** 

As defined by the premises map attached to the issued works

approval

**Date of report** 19 August 2022

**Decision** Works approval granted

Alana Kidd A/Senior Manager, Resource Industries REGULATORY SERVICES

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

## **Table of Contents**

1.	Decision summary1							
2.	Scope	e of as	sessment	1				
	2.1	Regula	atory framework	1				
	2.2	Applica	ation summary and overview of premises	1				
		2.2.1	Category 5	1				
		2.2.2	Category 12	2				
		2.2.3	Category 64	2				
		2.2.4	Category 73	2				
	2.3	Part IV	of the EP Act	4				
3.	Risk a	assess	ment	5				
	3.1	Source	e-pathways and receptors	5				
		3.1.1	Emissions and controls	5				
		3.1.2	Receptors	12				
	3.2	Risk ra	atings	15				
	3.3	Tailing	s deposition into TSF1 (Northern Cell)	22				
4.	Consi	ultatio	n	23				
<b>5</b> .	Regul	latory	controls	23				
	5.1	Works	approval	23				
	5.2	Propos	sed licence controls	23				
6.	Concl	lusion		24				
Refe	rences	S		24				
			nmary of applicant's comments on risk assessment and draft					
			lication validation summary					
, (pp		-: , (pp	noanon vanadason odinina, y minina non minina					
Table	e 1: Pro	posed a	applicant controls	5				
			environmental receptors and distance from prescribed activity					
			sment of potential emissions and discharges from the premises during					
			issioning and operation	16				
Table	4: Cor	nsultatio	on	23				
Table	5: Sur	nmary (	of proposed licence conditions	23				
Figur	e 1: Lo	cation c	of works (indicated in green) at the premises	3				
Figur	e 2· I o	cation o	of surface water bodies to the proposed infrastructure	14				

## 1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation the premises. As a result of this assessment, works approval W6643/2021/1 has been granted.

## 2. Scope of assessment

#### 2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at <a href="https://dwer.wa.gov.au/regulatory-documents">https://dwer.wa.gov.au/regulatory-documents</a>.

## 2.2 Application summary and overview of premises

On 23 December 2021, the applicant submitted an application for a works approval to the department under section 54 of the EP Act.

The premises is currently licensed and operates under licence L5275/1972/12. The nearest town of Paraburdoo is approximately 4km north of the premises boundary.

The application is for construction works relating to processing infrastructure, crushing and screening mobile plant, landfills and refuelling facilities at the premises (see Figure 1 below). Specifics on the proposed works for each category are listed below.

The department has not included the 'subsequent landfills' in the assessment of this works approval as proposed by the applicant. It is recommended that any new landfills in addition to the two proposed as part of this application are applied for via a licence amendment.

The works are to support mining a new ore deposit (Western Range) and the extension to pits at the Paraburdoo and Eastern Range deposits. The mining of the new deposit and extension to existing pits (including related activities to support the development of the new pits) was assessed by the Environmental Protection Authority (EPA). These expansion activities, although related, are separate to the works proposed and assessed as part of this works approval application. Refer to section 2.3 for information relating to approvals under Part IV of the EP Act.

The premises relates to the categories and assessed production / design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6643/2021/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6643/2021/1.

#### **2.2.1 Category 5**

Works/changes will include:

- modifications to existing processing facilities (located at Paraburdoo) including the coarse ore stockpile, scalping screens and conveyors CV02 – CV06; CV09 and CV10.
- new processing facilities at Western Range including run of mine pad (ROM), primary crushing facility and overland conveyor that will run 17.8km between Western Range and Paraburdoo.
- disposal of tailings from the Western Range ore deposit to be disposed of into the northern cell of TSF1.

1

No increase in Category 5 throughput is proposed. The applicant has advised the department that to process the ore from the expanded and new deposits that modifications and additional facilities are required. The changes will allow the applicant to maintain the approved Category 5 licensed throughput of 30 million tonnes per annum (Mtpa). Given this, the assessment has been based on the actual throughput for Category 5 (30 Mtpa) rather than the combined maximum design capacity of the new primary crusher and other infrastructure and existing infrastructure.

#### 2.2.2 Category 12

Works/changes will include:

a new mobile crushing and screening plant.

No increase in Category 12 throughput is proposed. The applicant has advised the department that the mobile plant will be moved around the site to support construction at the Western Range. The assessment has been based on the actual throughput for Category 12 (10 Mtpa) rather than the combined maximum design capacity of the new mobile plant and existing infrastructure.

#### 2.2.3 Category 64

Works/changes will include:

- two new landfills (putrescible).
- increase in Category 64 throughput from 5,000 tonnes per annum (tpa) to 29,000 tpa.

#### 2.2.4 Category 73

Works/changes will include:

- a new heavy vehicle refuelling facility.
- two temporary bulk refuelling facilities.
- increase in Category 73 design capacity from 5,903 to 7,653 cubic metres.

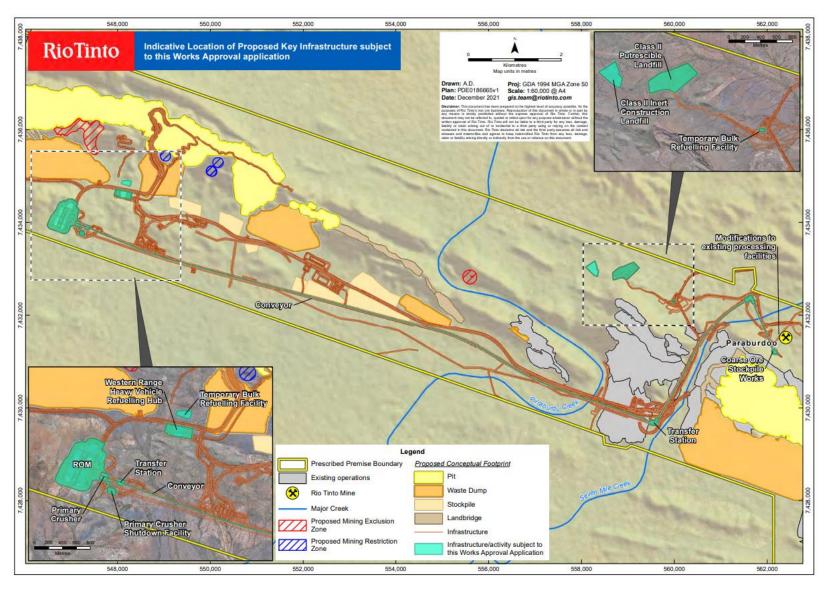


Figure 1: Location of works (indicated in green) at the premises

#### 2.3 Part IV of the EP Act

On 5 November 2018, the applicant referred a proposal for expansion activities at the premises to the EPA. The proposal included the development of new ore deposits at Western Range (along with associated infrastructure) including above and below ground water table mining and the extension of existing operations at Paraburdoo and Eastern Range. The works approval application (Part V application) is consistent with the key characteristics specified in the proposal. It is noted that the scope of the works approval application forms only a portion of the extent of the proposal under Part IV.

The EPA's report and recommendations about the proposal was published in EPA assessment report 1723 (EPA, 2022) in June 2022. The scope of the proposal assessed by the EPA includes:

- the development of new pits and extension to existing pits; and
- activities required to facilitate development of the new pits which may include (but not limited to) processing infrastructure at Western Range and infrastructure for dewatering and groundwater abstraction.

Activities that are part of, or required for the continuation of the existing mining operations at Paraburdoo and Eastern Range do not form part of the proposal and were excluded from the assessment.

The appeal period for the EPA assessment report 1723 closed 1 July 2022 and the recommended conditions (and approval of the proposal) were considered by the Minister for Environment. Ministerial Statement 1195 was published on 5 August 2022.

The EPA report 1723 identified the following key environmental factors relevant to the proposal:

- Social Surroundings (an assessment of direct and indirect impacts to Aboriginal heritage values).
- Flora and Vegetation (an assessment of direct and indirect impacts to vegetation and significant flora (including *Aluta quadrata* and *Ptilotus trichocephalus*)).
- Terrestrial Fauna (an assessment of direct and indirect impacts to fauna (including impacts to the ghost bat and Pilbara leaf-nosed bat) and the clearing of fauna habitat (including gorge/gully and riverine habitat types).
- Subterranean Fauna (an assessment of direct and indirect impacts to troglofauna and stygofauna habitat and subterranean fauna individuals).
- Inland Waters (an assessment of direct and indirect impacts to groundwater and surface water).
- Greenhouse Gas Emissions (an assessment of the Scope 1, Scope 2 and Scope 3 greenhouse gas emissions for the proposal).

Aspects of the works approval application that have been assessed by the EPA and are therefore regulated under Part IV of the EP Act include impacts to terrestrial fauna and flora and vegetation (threatened and/or priority fauna and flora) from new infrastructure. It includes an assessment of the impacts from the overland conveyor where it intercepts priority flora and crosses the riverine habitat, along with the putrescible landfill that intersects the gorge/gully habitat.

Potential impacts to threatened and/or priority fauna and flora from activities/upgrades relating to existing infrastructure was not included as part of the Part IV assessment. Given this, it has been included in the Part V assessment.

The Part V assessment found that no threatened and/or priority fauna and flora are in the vicinity of these works and there is no potential of them being impacted by activities/upgrades relating

to existing infrastructure.

The EPA considers that impacts to water quality from activities such as tailings storage and surplus water discharge can be adequately managed under Part V of the EP Act. The works approval application includes tailings disposal, and this has been considered in the assessment of the works approval application. Surplus water discharge was not included as part of this works approval application and as such has not been assessed.

#### 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, commissioning and operation which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

**Table 1: Proposed applicant controls** 

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction or placement of facilities and equipment including vehicle movements	nent of pathway specific controls:  s and onent including specific controls:  dust suppression we specific controls:	
Contaminated stormwater (sediment, hydrocarbons etc) and Hydrocarbons and other materials such as lubricants		Overland flow	The applicant has outlined the following specific controls:  Hydrocarbons:  • heavy vehicle refuelling will occur over concrete hardstand or compacted, temporary bulk refuelling will be over lined earthen pad.  • fuel storage tanks will be designed and constructed to AS 1940-2004: The storage and handling of flammable and combustible liquids.  • fuel storage tanks will be above ground.

Emission	Sources	Potential pathways	Proposed controls
			fuel storage tanks will be self-bunded.
			concrete hardstand or a compacted, lined earthen pad will be installed under hydrocarbon storage and refuelling facilities where there is potential for hydrocarbon spills.
			<ul> <li>management structures (bunding / secondary containment) will be installed at all hydrocarbon storage facilities to ensure any spills are contained.</li> </ul>
			<ul> <li>a free draining concrete apron for oily water containment, surrounded by a curb on the sides with berms will be installed.</li> </ul>
			spill response equipment provided.
Commissionin	g		
Dust	Commissioning of processing facilities (Western Range primary crushing	Air/windborne pathway	dust suppression will be implemented (including use of water trucks, control of vehicle movements / restricted speeds) during operations.
	facility/conveyor only)		<ul> <li>weather forecasts will be monitored, activities that have the potential to generate high dust levels may be restricted if there is a risk of windy conditions.</li> </ul>
			<ul> <li>baghouse chambers/baghouse hopper will be equipped with an insertable type dust collector at the top of the bin structure.</li> </ul>
			<ul> <li>load points from the surge bin onto each conveyor include skirts and covers to reduce spillage and dust suppression sprays.</li> </ul>
			<ul> <li>regular inspection and maintenance will be undertaken to collect and remove material that may present a potential dust risk.</li> </ul>
			<ul> <li>primary crushing facility includes a dry baghouse dust extraction system.</li> </ul>
			The overland conveyor must be covered for 95% of its length, and
			include dust suppression, moisture addition and dust analysing equipment.
Hydrocarbons		Direct discharge/	all bulk hydrocarbon storage will comply with Australian Standard 1940 - The
Potentially contaminated		Overland flow	storage and handling of flammable and combustible liquids (AS1940).

Emission	Sources	Potential pathways	Proposed controls
stormwater			concrete hardstand will be installed under the processing facilities where there is potential for hydrocarbon contaminated surface water.
			<ul> <li>potentially contaminated surface water will be collected and directed to the oily water collection and treatment system.</li> </ul>
			<ul> <li>provision of management structures (bunding / secondary containment) at all hydrocarbon storage facilities to ensure any spills are contained.</li> </ul>
			provision of spill response equipment.
Hydrocarbons And	Commissioning of heavy vehicle refuelling facility	Direct discharge/ Overland flow	vertical distance between the facility and groundwater level greater than 10 m.
Potentially contaminated stormwater			<ul> <li>located more than 2km from the nearest surface water.</li> </ul>
			<ul> <li>fuel storage tanks will be designed and constructed to AS 1940-2004: The storage and handling of flammable and combustible liquids.</li> </ul>
			<ul> <li>fuel storage tanks will be above ground and self-bunded.</li> </ul>
			<ul> <li>hydrocarbon storage and refuelling facilities located on a concrete hardstand.</li> </ul>
			<ul> <li>potentially contaminated surface water will be collected in sumps and directed to an oily water collection and treatment system.</li> </ul>
			<ul> <li>automatic cut off valves at the heavy mobile equipment dispenser.</li> </ul>
			spill response equipment.
Operation			
Dust	Ore processing, movement, and storage including vehicle movements	Air/windborne pathway	dust suppression will be implemented (including use of water trucks, control of vehicle movements / restricted speeds) during operations.
			weather forecasts will be monitored, activities that have the potential to generate high dust levels may be restricted if there is a risk of windy conditions.
			baghouse chambers/baghouse hopper will be equipped with an insertable type dust collector at the top of the bin structure.

Emission	Sources	Potential pathways	Proposed controls
			load points from the baghouse chambers/baghouse hopper onto each conveyor include skirts and covers to reduce spillage and dust suppression sprays.
			regular inspection and maintenance will be undertaken to collect and remove material that may present a potential dust risk.
			<ul> <li>primary crushing facility includes a dry baghouse dust extraction system.</li> </ul>
			The overland conveyor must be covered for 95% of its length, and
			include dust suppression, moisture addition and dust analysing equipment.
		Overland flow	Hydrocarbons:
			all bulk hydrocarbon storage will comply with Department of Mines, Industry Regulation and Safety licensing requirements and Australian Standard 1940 - The storage and handling of flammable and combustible liquids (AS1940).
			concrete hardstand will be installed under the processing facilities where there is potential for hydrocarbon contaminated surface water.
			<ul> <li>potentially contaminated surface water will be collected and directed to the oily water collection and treatment system.</li> </ul>
Contaminated stormwater (sediment, hydrocarbons etc)			<ul> <li>provision of management structures (bunding / secondary containment) at all hydrocarbon storage facilities to ensure any spills are contained.</li> </ul>
,			provision of spill response equipment.
			Sediment laden:
			<ul> <li>surface water management structures (such as diversion bunds and drains) will be installed to direct surface water flows around the facilities.</li> </ul>
			the plant drainage will flow to an earthen sedimentation / silt pond designed to contain a peak 1:10 year rainfall event.
			concrete hardstand will be installed under the processing facilities where there is potential for sediment laden surface water; and graded such that washdown water will be collected in a

Emission	Sources	Potential pathways	Proposed controls
			concrete drive-in sump.
			<ul> <li>concrete drive-in sumps are also provided at the transfer points between the primary crushing facility, discharge conveyor and the overland conveyor transfer stations and at drive stations.</li> <li>potentially sediment laden surface water</li> </ul>
			will be retained on site (directed to sedimentation ponds / silt traps) to allow for sedimentation before being discharged.
			levee and drain structures installed to prevent the ingress of surface water into the mining operations will also be used to direct runoff water around the plant and other infrastructure.
Process water		Direct discharge/ Overland flow	surface water management structures (such as diversion bunds and drains) will be installed to direct surface water flows around the facilities.
			concrete hardstand will be installed under the processing facilities where there is potential for unplanned releases of process water.
			<ul> <li>drainage from concrete hardstand under processing facilities will be retained on site (directed to sedimentation ponds / silt traps).</li> </ul>
Hydrocarbons and other materials such as lubricants			all bulk hydrocarbon storage will comply with DMIRS licensing requirements and Australian Standard 1940 - The storage and handling of flammable and combustible liquids (AS1940).
			concrete hardstand will be installed under the processing facilities where there is potential for hydrocarbon contaminated surface water.
			potentially contaminated surface water will be collected and directed to the oily water collection and treatment system.
			<ul> <li>provision of management structures (bunding / secondary containment) at all hydrocarbon storage facilities to ensure any spills are contained.</li> </ul>
			provision of spill response equipment.
Dust	Crushing and screening activities	Air/windborne pathway	spraying the feed stockpile with water prior to being fed into the screen.
			use of dust suppression on stockpiles

Emission	Sources	Potential pathways	Proposed controls
			<ul> <li>as necessary.</li> <li>water carts to dampen work areas, access roads and stockpiles to minimise dust lift-off during storage and handling of borrow and screened material as required.</li> <li>if fitted, use of hydraulically angleadjustable stockpiling conveyors to minimise drop heights.</li> <li>if fitted, belt sprayers will be employed to dampen crushed material as necessary.</li> </ul> Control measures as outlined in Rio Tinto, 2015.
Contaminated stormwater (sediment, hydrocarbons etc)		Overland flow	<ul> <li>located at least 50 meters from any permanent water body.</li> <li>uncontaminated stormwater from the surrounding areas shall be diverted around the mobile plant area.</li> <li>the material produced for use shall be stockpiled within the mobile plant area so that stormwater management practices implemented also control material stockpile areas.</li> <li>Control measures as outlined in Rio Tinto, 2015.</li> </ul>
Leachate containing elevated metals and metalloids	Deposition of tailings from the new Western Range ore deposit into existing TSF1	Seepage into soil and groundwater	<ul> <li>Groundwater quality around the tailings area will be monitored on an annual basis as per existing licence conditions (condition 5).</li> <li>Groundwater monitoring will be carried out as per Schedule 2 of W6421/2020/1 (this works approval relates to construction and operation of an upstream wall raise of TSF1 Northern Cell).</li> </ul>
Dust	Landfilling activities	Air/windborne pathway	<ul> <li>dust suppression will be implemented (including use of water trucks, control of vehicle movements / restricted speeds) during operations.</li> <li>weather forecasts will be monitored, activities that have the potential to generate high dust levels may be restricted if there is a risk of windy conditions.</li> </ul>
Windblown waste		Direct discharge/ Overland flow	<ul> <li>recycling and general waste collection areas will be established and labelled with the relevant waste type to facilitate the management of waste.</li> <li>total landfill waste will not exceed</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			34,000 tonnes per annual period.
			<ul> <li>landfill facilities will only accept approved types of waste.</li> </ul>
			<ul> <li>putrescible landfill facilities will be fenced to an appropriate height, gated and locked to contain windblown waste and exclude scavenging animals.</li> </ul>
			<ul> <li>fencing surrounding the perimeter of putrescible landfill facilities will be regularly inspected for damage and cleared of waste.</li> </ul>
			<ul> <li>landfill facilities will include a sign which clearly defines what waste is accepted.</li> </ul>
			<ul> <li>waste will be covered so that no waste is left exposed.</li> </ul>
Contaminated Stormwater			surface water management structures (i.e. bunding) will divert surface water away from landfill facilities.
Leachate		Seepage through soil to surface or	landfill facilities will be located more than 100 m from any permanent or perennial watercourse.
		ground water	<ul> <li>landfill facilities will be located so that vertical distance between the waste and the highest seasonal and expected post mining ground water level is no less than 3 m (waste dump/inert landfill) or 10 m (putrescible landfill).</li> </ul>
			<ul> <li>landfill facilities will only accept approved types of waste.</li> </ul>
			<ul> <li>landfill facilities will include a sign which clearly defines what waste is accepted.</li> </ul>
			surface water management structures     (i.e. bunding) will divert surface water     away from landfill facilities.
			<ul> <li>a sump or bunding will collect any surface water that has come into contact with waste.</li> </ul>
			<ul> <li>waste will be covered so that no waste is left exposed.</li> </ul>
Hydrocarbons	Heavy vehicle refuelling facility	Direct discharge/ Overland flow	located where the vertical distance between the facility and the groundwater level is more than 10 m.
			<ul> <li>fuel storage tanks will be designed and constructed to AS 1940-2004: The storage and handling of flammable and combustible liquids.</li> </ul>
			fuel storage tanks will be above ground

Emission	Sources	Potential pathways	Proposed controls
			and self-bunded.
			concrete hardstand will be installed where there is potential for hydrocarbon spills.
			potentially contaminated surface water will be collected in sumps and directed to the oily water collection and treatment system. The oily water treatment system will be designed to achieve a total recoverable hydrocarbon concentration below 15 mg/L in treated water.
			management structures (bunding / secondary containment) will be installed to ensure any spills are contained.
			<ul> <li>automatic cut off valves to be located at the heavy mobile equipment dispenser.</li> </ul>
			<ul> <li>spill response equipment will be provided.</li> </ul>
	Temporary bulk refuelling facilities		designed and constructed in accordance with AS 1940-2004: The storage and handling of flammable and combustible liquids.
			the ground directly below the refuelling apron will be compacted to 95% Maximum Dry Density and lined with a 0.75 mm high density polyethylene liner to be installed 400 mm below the refuelling apron.
			<ul> <li>rollover bunds will be constructed on all sides of the refuelling apron.</li> </ul>
			<ul> <li>two 1000 mm high by 200 mm diameter concrete-filled bollards will be installed either side of the refuelling apron to prevent vehicle collision.</li> </ul>
			windrows 700 mm high at 2:1 batter will surround the sides of the fuel storage facility.
			tanks will be double skinned with leak detection systems and overfill protection.

## 3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's employees, visitors, and contractors 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 and Figure 2 below provides a summary of potential 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 environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Pirraburdu Creek Seven Mile Creek Various ephemeral surface water bodies	<ul> <li>The conveyor crosses over Pirraburdu Creek in one location.</li> <li>The conveyor crosses over Seven Mile Creek in two locations near the Further Fines Processing Plant.</li> <li>Several minor surface water lines have the conveyor crossing over them and are in the vicinity of the refuelling hub and temporary facility.</li> </ul>
Groundwater	The Premises is located within the Proclaimed Pilbara Groundwater and Surface Water Areas.  Paraburdoo area: The depth to groundwater is approximately 5 m below ground level (mbgl) in the Seven Mile Creek alluvial aquifer (Rio Tinto, 2021).  Western Range area: The depth to groundwater is approximately 80 m to 250 mbgl (Rio Tinto, 2021).
Native vegetation	Within the premises boundary

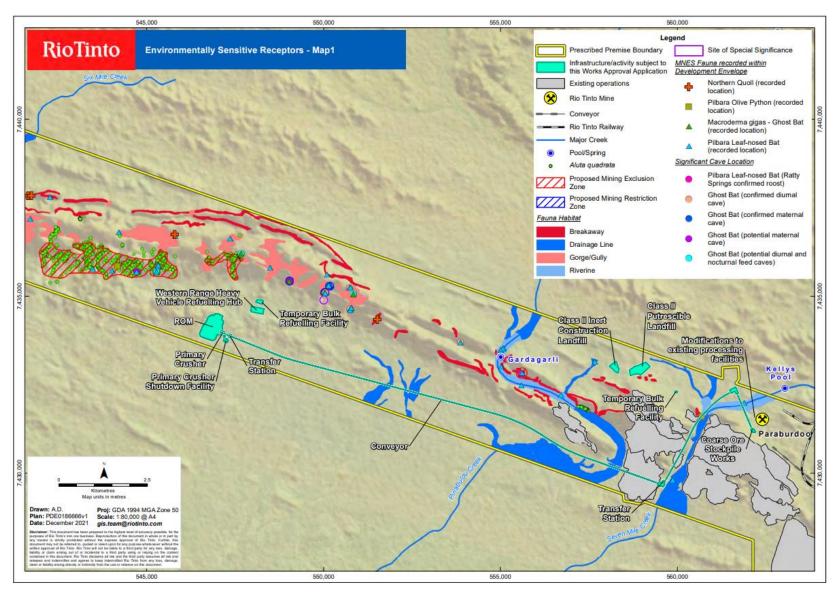


Figure 2: Location of surface water bodies to the proposed infrastructure

Works approval: W6643/2022/1

## 3.2 Risk ratings

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

Where the applicant 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 applicant'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 applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Works approval W6643/2022/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 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 relating to the activities summarised in section 2.2. A risk assessment for the operational phase has been included in this decision 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 Event					Amaliana		best the steer for
Source/Activities	Potential emissions	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Applicant controls sufficient?	Conditions of works approval	Justification for additional regulatory controls
Construction								
	Dust	Air/windborne pathway causing impacts to flora, fauna, surface water	ray ng Pirraburdu Creek, Seven Mile Creek and minor surface waterbodies – the conveyor crosses over these waterbodies  ation, be water  Native vegetation	See Section 3.1	C = Minor L = Rare Low Risk	Yes	Conditions 1 – 4	
Construction or placement of facilities and equipment including vehicle movements	Contaminated stormwater (sediment, hydrocarbons etc)	Overland flow causing impacts to native vegetation, surface water and groundwater						N/A
Commissioning								
Commissioning of processing facilities (Western Range primary crushing facility/conveyor only)	Dust	Air/windborne pathway causing impacts to native vegetation and surface water	Pirraburdu Creek, Seven Mile Creek and minor surface waterbodies – conveyor crosses over	See Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Yes	Conditions 5 – 8	N/A

Risk Event	Risk Event							hadding to the
Source/Activities	Potential emissions	Potential pathways and impact	Receptors	Applicant controls	C = consequence c	Applicant controls sufficient?	Conditions of works approval	Justification for additional regulatory controls
	Hydrocarbons and other materials such as lubricants and contaminated stormwater	Direct discharge/ Overland flow causing impacts to native vegetation and surface water	these waterbodies  Native vegetation				N/A  No works approval conditions required. The sites licence has existing conditions relating to the regulation of waste and stormwater from activities (conditions 2, 7, 8, 9). These include:  using and maintaining bunding, skimmers, silt traps fuel and oil traps, drains etc around process plant.  prevention of oil-water emulsions passing through separator systems.  recovery and disposal of liquid from spills or leaks inside or outside low permeability compounds.  treatment of stormwater from process plants prior to disposal, reuse or discharge	

Risk Event					Risk rating			best the steer for
Source/Activities	Potential emissions	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Applicant controls sufficient?	Conditions of works approval	Justification for additional regulatory controls
Operation (including time limit	ted operations)							
Ore processing, movement, and storage including vehicle movements	Dust  Contaminated stormwater (sediment, hydrocarbons etc)  Hydrocarbons and other materials such as lubricants	Air/windborne pathway causing impacts to native vegetation and surface water  Overland flow causing impacts to surface water/ ground water  Direct discharge/ Overland flow causing impacts to native vegetation and surface water/ground water	Pirraburdu Creek, Seven Mile Creek and minor surface waterbodies – the conveyor crosses over these Native vegetation	See Section 3.1	C = Slight L = Unlikely Low Risk  C = Minor L = Rare Low Risk	Yes	Conditions 9 and 10 Conditions 11 - 13  N/A  No works approval conditions required. The sites licence has existing conditions relating to the regulation of waste and stormwater from activities (conditions 2, 7, 8, 9).  using and maintaining bunding, skimmers, silt traps fuel and oil traps, drains etc around process plant.  prevention of oil-water emulsions passing through separator systems.  recovery and disposal of liquid from spills or	N/A

Risk Event					Risk rating	Amuliaant		Justification for	
Source/Activities	Potential emissions	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Applicant controls sufficient?	Conditions of works approval	additional regulatory controls	
							<ul> <li>leaks inside or outside low permeability compounds.</li> <li>treatment of stormwater from process plants prior to disposal, reuse or discharge.</li> </ul>		
	Dust	Air/windborne pathway causing impacts to native vegetation and surface water	The location of receptors in relation to the mobile crushing and screening plant is not known. The plant will move				N/A	N/A	
Crushing and screening activities	Contaminated stormwater (sediment, hydrocarbons etc)	Overland flow causing impacts /disturbance to native vegetation and surface water	to different locations within the premises. It will operate in cleared borrow pit areas to support activities at the Western	lifferent ations within premises. It operate in ared borrow areas to port activities he Western nge.  ceptors likely be native letation and	Section	C = Minor L = Rare Low Risk	Yes	No works approval conditions required. The sites licence has existing conditions (condition 1) relating to operation of mobile crushing and screening plants.	
	Hydrocarbons and other materials such as lubricants	Direct discharge/ Overland flow causing impacts/	Range.  Receptors likely to be native vegetation and surface water						

Risk Event					Risk rating			
Source/Activities	Potential emissions	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Applicant controls sufficient?	Conditions of works approval	Justification for additional regulatory controls
		disturbance to native vegetation and surface water						
Deposition of tailings from the new Western Range ore deposit into existing TSF1 (Northern Cell)	Leachate containing elevated metals and metalloids	Seepage from TSF1 potentially contaminating the soil and impacting on the water quality of the groundwater	Groundwater – highest seasonal level expected to be 10mbgl	See Section 3.1	C = Moderate L = Possible Medium Risk	Yes	N/A  No works approval conditions required. Refer to Section 3.3 below for comments on the assessment.	
Landfilling activities	Dust Windblown waste Contaminated stormwater Leachate	Air/windborne pathway causing impacts to surface water/ groundwater Native vegetation	Minor surface water line about 100m north  Groundwater – highest seasonal level expected to be 10mbgl	See Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Yes	Conditions 11 – 13	N/A
Refuelling facilities	Hydrocarbons	Direct	Seven-mile creek – 1.2 km	See Section	C = Minor	Yes	Conditions 11 – 13	N/A

Risk Event					Risk rating	A		Justification for additional regulatory controls
Source/Activities	Potential emissions	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Applicant controls sufficient?	Conditions of works approval	
		discharge/ overland flow causing impacts/ disturbance to surface water/ ground water  Native vegetation	from temporary refuelling facility Minor surface water lines in the vicinity of the refuelling hub	3.1	L = Rare Low Risk			

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

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

#### 3.3 Tailings deposition into TSF1 (Northern Cell)

The application indicates that in addition to current tailings disposed of into TSF1, that tailings from a new ore deposit, the Western Range ore deposit will be deposited into the TSF1 Northern Cell. No changes to the design, management, or operation of the TSF are proposed for the acceptance of the tailings from the new ore deposit.

The application outlines that deposition of the Western Range tailings into the Northern Cell TSF1 will commence August 2024.

The applicant provided a report authored by SRK Consulting (Australasia) Pty Ltd titled *Western Range – Geochemical Characterisation of Waste Rock and Tailings*, August 2020. The report includes results from test work to characterise three tailings samples from the Western Range deposit. Several tests were performed which included mineralogical assessment, paste pH and electrical conductivity, deionised water leach, saline leach testing, sulfur speciation and single addition net acid generation. Test work classified that the tailings are non-acid forming. Leach testing identified that that elements (including Ca, Mg, K, Ba, Co, Mn, Ni and Sr) leached at higher concentrations when under saline conditions (compared to leaching with deionised water).

This works approval does not include conditions relating to the deposition of tailings from the Western Range ore deposit.

The applicant is required to monitor groundwater around the TSF1 under their operating licence, L5275/1972/12 and works approval W6421/2020/1. Further information about works approval W6421/2020/1 is outlined below for reference.

It is recommended that following completion of the works under this works approval and the subsequent submission of a licence amendment for the operation of the works, that the results of groundwater monitoring around the TSF1 and the time limited operations report (for works approval W6421/2020/1) are reviewed and considered by the department as part of the licence amendment assessment.

#### Works approval W6421/2020/1

A works approval, issued in February 2021 approved the construction of a 2-metre lift for the Northern Cell at TSF1. Information submitted as part of this application outlined that construction of the TSF1 lift was due to be completed in December 2021 with recommissioning after April 2022. The department has not received compliance documentation to date for the TSF1 lift.

During the assessment of the works approval, the department noted how groundwater results from bores surrounding TSF1 showed detrimental effects from seepage on groundwater quality. The department acknowledged that the annual monitoring under the operational licence (L5275/1972/12) was not sufficient to capture the seasonal variation that may occur at the premises. Given this, the works approval includes a condition for monitoring during time limited operations (which would include at least two samples over a 6-month period).

### 4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation** 

Consultation method	Comments received	Department response
Application advertised on the department's website on 28 February 2022	None received.	N/A.
Local Government Authority advised of proposal on 28 February 2022	None received.	N/A.
Applicant was provided with draft documents on 14 July 2022	Comments received from Applicant on 5 August 2022, and the remainder of the comment period was waived.  Comments are listed in Appendix 1.	Delegated Officer responses to Applicant comments are listed in Appendix 1

## 5. Regulatory controls

## 5.1 Works approval

Section 3 provides an assessment and summary of conditions set out in works approval W6643/2021/1 for construction and time limited operations of the activities.

## **5.2** Proposed licence controls

The controls outlined in Table 5 below are recommended when the applicant applies for a amendment to licence L5275/1972/12 to include ongoing operations of the works authorised under this works approval. Only some, and not all conditions that may be applicable have been included. The conditions are not final and are subject to compliance with conditions of the works approval. Conditions for the licence may change if additional information becomes available to further inform the risk assessment.

Table 5: Summary of proposed licence conditions

Propo	sed condition	Reasoning			
1.	The licence holde equipment and p corresponding in operated in accorequirements set	The licence has existing controls for crushing and screening mobile plant and refers to a management plan (condition 1).			
Table 1	1: Infrastructure and e	equipment operational require	ements	It is recommended that when the licence is next amended that condition 1 is revised to	
Item	Site infrastructure, equipment and plant	Operational requirements	Infrastructure location	capture the key controls of the applicant's management plan rather than referencing the plan. This change would	
1	Plant and vehicles (crushers, screens,	(a) Water carts, or equivalent, must be available to	Located at least 50 meters from	ensure that the condition is sufficiently final and certain,	

an	d stackers)	effectively wet down the area of approved activities and stockpiles of material  (b) Belt sprayers (if fitted) must be used to dampen crushed material.  (c) Drop heights of material to be minimised by adjusting stockpiling conveyors if the conveyors are adjustable.	within the boundary of the prescribed premises as depicted in Schedule 1.
	ormwater anagement	(a) Stormwater from the surrounding areas shall be diverted around the plant and material stockpile areas.	

and outcome based, which is consistent with the Department of Environment Regulation (DER) 2015, Guidance Statement: Setting Conditions.

It is also recommended that the condition captures the removal and relocation of the mobile plant within the premises boundary on an as needed basis to accommodate for the various locations where crushing and screening will occur.

- The licence holder is permitted to remove the following equipment from the premises and relocate back within the premises at the locations set out in Schedule 1 on an as needs basis:
  - (a) mobile crushing and screening equipment.

### 6. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

The applicant will need to apply for a licence amendment following construction/commissioning of the proposed works to authorise ongoing operations related to the works.

### References

- 1. Department of Water and Environmental Regulation (DWER) 2017, *Guideline: Risk assessments*, Perth, Western Australia.
- 2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 3. DWER 2020, Department of Water and Environmental Regulation, *Guideline Environmental Siting*, Perth, Western Australia.
- 4. Rio Tinto, 2015, Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877) (A2102520)
- 5. Rio Tinto, 2021, Works Approval Supporting Documentation Paraburdoo & Eastern Range Iron Ore Mine (L5275/1972/12) Greater Paraburdoo Iron Ore Hub Proposal December 2021 (RTIO-HSE-0357020) (A2075958)

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

Item	Condition	Summary of applicant's comment	Department's response
Draft	Licence comments		
1	Cover Page (page 1)	The works approval now includes operations at Paraburdoo Iron Ore Mine, the Eastern Range Project, and the Western Range Project.  Please include Western Range in the Premise detail description	The Delegated Officer has made this change in the licence.
2	Conditions 2 & 3 (page 3)	The Licensee notes that the compliance reporting conditions do not currently allow for minor departures, which is a commonly imposed condition on many works approval instruments. The Licensee requests that the compliance reporting conditions be amended to match those imposed on recently approved instrument W6221/2019/1.	The Delegated Officer notes that Figures 3 - 14 are either stamped as "preliminary" or "general layout", and that the applicant's comments 8, 11, 12, 14, and 16 - 19 are all related.
		The Licensee requests that the compliance reporting conditions be updated with the below condition wording:  xx. The Works Approval Holder must not depart from the requirements specified in Table 1 except:	While the standard set of current conditions for works approval do not include an allowance for minor departures to design and construction requirements, the Delegated Officer acknowledges that the design of infrastructure may change between the time an application for
		where such departure does not increase risks to public health, public amenity or the environment; and      where such departure does not increase risks to public health, public amenity or the environment; and	a works approval is submitted, and the time construction of that infrastructure commences on a premises.
		<ul> <li>b) all other Conditions in this Works Approval are still satisfied.</li> <li>xx. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition xx being constructed and/or installed or transported to the premises:</li> </ul>	The proposed change to works approval W6643 by comment 2 does allow some flexibility for the applicant to deviate from assessed design detail, but the Delegated Officer notes that only
		a) undertake an audit of their compliance with the requirements of condition 1;	comments 9, 10, 13, and 15 request specific design and constructions requirement description changes.  The Delegated Officer believes that the proposed change to conditions, which include a requirement for the applicant to report on design variation, along with existing and proposed controls, will be suitable in managing environmental risk.
		b) prepare and submit to the CEO an Environmental Compliance Report on that compliance; and	
		c) Where a departure from the requirements specified in Table xx occurs and is of a type allowed by Condition xx, the Works Approval Holder must provide to the CEO a description of, and explanation for, the departure.	

Works approval: W6643/2022/1

Item	Condition	Summary of applicant'	s comment			Department's response
3	Condition 5 (Table 1)	The Licensee request the beamended to more cloapproval W6221/2019/1.	ons	The Delegated Office considers this proposed change to "Authorised commission duration" to require clarification.		
			d so that commissionin	onstruction reports and extend g activities can assess how al ntegrated.		The Delegated Officer acknowledges and agrees with the request to extend commissioning from 4 months to 6 months, to
		of infrastructure have be commence as soon as a	nes not commence untile en submitted, noting the construction report has	construction reports for all ite		allow the applicant to fully integrate all parts of the infrastructure. But the Delegated Officer has slightly amended the language to specify that all items of infrastructure must relate to the Primary crushing and Overland conveyor.  "6 months from the date Environmental"
		Infrastructure	Commissioning requirements	Authorised commission duration		Compliance Report(s) for all Primary crushing and Overland conveying infrastructure requiring commissioning listed in Table 4 have been submitted"
		Primary crushing facility (Western Range):	No changes required	6 months from the date Environmental Compliance Report(s) for all items of infrastructure		
		and Overland conveyor (Western Range to Paraburdoo)		requiring commissioning listed in Table 4 have been submitted		
		Heavy vehicle refuelling station	No changes required	4 months		
4	Condition 8  The Licensee request that the TLO duration be extended, as extending the TLO will increase the likelihood that a single licence amendment can be submitted in future.  Given supply chain delays, it has proven difficult to construct and/or establish multiple items of infrastructure in a timeframe that would facilitate a single licence amendment, particularly when there are multiple items of infrastructure				in	The department's <i>Industry Guide to Licensing</i> set the period of time limited operation under a works approval to between 90 and 180 calendar days to allow for the assessment of the licence application. Operation under licence conditions can begin when the licence is granted.
			egories (i.e. Cat 5, Cat hat the flexible TLO co	12, Cat 73) on a Works Approndition imposed on		Regarding the proposed change to Condition 10, an appropriate time limited operation period allows for the transitioning to licensed operations. There is no requirement to prohibit

Item	Condition	Summary of applicant's comment	Department's response
		Suggested amendments to Condition 9(a) are provided below and mimic those imposed on W6403/2021/1:	time limited operation under a licence as the licence itself allows operation.
		<ul> <li>9 – The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1:</li> <li>a) Where the item of infrastructure is not authorised to undertake environmental commissioning, the Environmental Compliance Report as required by condition xx has been submitted by the works approval holder for that item of infrastructure</li> <li>b) Where the item of infrastructure is authorised to undertake environmental commissioning under condition xx, the Works Approval holder may only commence time limited operations following conclusion of the environmental commissioning phase as required by condition xx.</li> <li>10 – Upon granting of a licence or registration under Part V of the Environmental Protection Act 1986, authorizing the operation of the infrastructure identified in condition xx, the works approval holder may no longer conduct time limited operations in respect of the infrastructure under the terms of this works approval.</li> </ul>	As per the department's Industry Regulation Guide to Licensing, "Time limited operations may be authorised under a works approval.  Once the Department has verified that all reports have been submitted to demonstrate that works have been completed in accordance with the conditions of a works approval, time limited operations may commence".  Time limited operations are only authorised under a works approval and are not included as a condition of a licence. Noting an active licence exists, amendments should be quicker to process than a new licence application.  It is also recommended that compliance documentation be submitted in batches so that infrastructure that needs to be commissioned or operated as one – all comes online for TLO at the same time.
5	Condition 10 (Table 2, Item 4)	The current condition wording is very restrictive and states that a specific concentration must be achieved. The condition should be reworded so that the lower concentrations of TRH still meet the operational requirement.  In addition, the Licensee request that the imposed limit of 15 mg/L be amended to 30 mg/L, as this is realistic and achievable. While the equipment may have the capacity to achieve a concentration of 15 mg/L, previous operational experience has indicated that from time to time there are fluctuations above 15 mg/L.  Suggested rewording:  c) Potentially contaminated surface water to be treated to achieve a total recoverable hydrocarbon concentration of not more than 30 mg/L.	The Delegated Officer agrees that the wording of the condition is restrictive, and that it sets a single concentration for total recoverable hydrocarbon (TRH), rather than a maximum.  The 15 mg/L limit for TRH was taken from the Applicants supporting documentation. According to supporting documentation the 'oily water collection and treatment system' will be designed to achieve a TRH concentration below 15 mg/L in treated water.  The Delegated Officer has made the condition less prescriptive but has left 15 mg/L as the upper allowable limit for TRH concentration.
6	Condition 10 (Table 2, Item 5)	Administrative error noted. Please change (d) to (b)	Typographic correction made

Item	Condition	Summary of applicant's comment	Department's response
7	Condition 11 & 12	The Licensee requests that DWER consider the requirement for a single report, as there appears to be no material benefit from the submission of both an Environmental Commissioning Report and a Time Limited Operations (TLO) report. The Licensee would like to understand the intent behind the TLO report and understand if this information is integral to the future licence amendment.  The Licensee requests that DWER provide advice on the intent of the TLO report and, if deemed acceptable, remove the requirement for a TLO report.	The Commissioning Report is a report on any commissioning activities that have taken place, and includes a demonstration that commissioning activities have concluded, with a focus on emissions and discharges, waste containment, and other environmental factors, as specified in the works approval  The report that is to be submitted following time limited operation is a review of performance and compliance against the conditions of the works approval, which include the Environmental Commissioning Report.  The report following time limited operations also includes details on instances where manufacturer's design specifications and the conditions of this works approval have not been met.
8	Schedule 3: Infrastructure and equipment – design and installation requirements  Condition 1 (Table 4, Item 1 – Primary crushing facility, Western Range)  Design and construction requirement and/or installation requirement (a)	The designs shown in Figure 3, Schedule 2 are preliminary in nature. As such, a minor amendment to the condition wording is suggested. The licensee acknowledges that minor variations to the displayed design can be captured and addressed when as constructed plans are provided to meet condition 3(b). However, there is currently no condition that allows for minor departures, which is usually a standard condition.  Suggested rewording to allow for minor variations or departures: The design of the primary crushing facility be generally in accordance with the preliminary design show in Figure 3 in Schedule 2: Design detail.  Please note that should the requested amendments to Conditions 2 & 3 be deemed acceptable, the suggested rewording of this condition will no longer be necessary.	See department response for Item 2
9	Schedule 3: Infrastructure and equipment – design and installation requirements	The Licensee has noted that the term "surge bin" is not descriptive enough and could be misinterpreted or misunderstood during construction. For instance, a ROM bin or PC Vault which are not linked to the dust collector, could be confused for a surge bin.	The Delegated Officer agreed to the descriptive change in works approval and in decision report and has made the suggested modification in both documents.

Item	Condition	Summary of applicant's comment	Department's response
	Condition 1 (Table 4, Item 1 – Primary crushing facility, Western Range)	The Licensee requests that the below wording is used in place of the existing wording that references surge bins:  c) Baghouse chambers equipped with insertable filter elements.	
	Design and construction requirement and/or installation requirement (c) and (d)	d) Load point from the Baghouse hopper onto ongoing conveyor to include skirts, covers and dust suppression spray(s)	
10	Schedule 3: Infrastructure and equipment – design and installation requirements	The sump is the item of infrastructure design to capture sediment. The current condition wording does not reflect this. The sumps have been designed in consideration of a 1:10 year rainfall event.	The Delegated Officer accepts these infrastructure design and construction requirement changes are largely descriptive, and that the sumps are designed to capture
	Condition 1 (Table 4, Item 1 – Primary crushing facility, Western Range)  Design and construction	Suggested rewording to accurately describe sediment infrastructure:  e) Installed on a concrete hardstand that allows for water to be collected in concrete sumps with overflow directed to earthen secondary containment structure which has been designed to withstand a peak 1:10 year rainfall event.	sediment. The Delegated Officer has made the proposed changes in the final works approval.
	requirement and/or installation requirement (e) & (g)	g) Designed to deliver ore to a discharge conveyor with the ground area surrounding transfer points to be a concrete hardstand that allows for water to be collected in concrete sumps which has been designed to withstand a peak 1:10 year rainfall event.	
11	Schedule 3: Infrastructure and equipment – design and installation requirements	The designs shown in Figure 4, Schedule 2 are preliminary in nature. As such, a minor amendment to the condition wording is suggested. The licensee acknowledges that minor variations to the displayed design can be captured and addressed when as constructed plans are provided to meet condition 3(b).	See department response for Item 2
	Condition 1 (Table 4, Item 2 – Processing Facility, Western Range)	However, there is currently no condition that allows for minor departures, which is usually a standard condition.	
	Design and construction requirement and/or installation requirement (a)	Suggested reword: The design of the Run of Mine Pad be generally in accordance with the preliminary design show in Figure 3 in Schedule 2: Design detail.	
	roquionicit (e)	Please note that should the requested amendments to Conditions 2 & 3 be deemed acceptable, the suggested rewording of this condition will no longer be necessary.	
12	Schedule 3: Infrastructure and equipment – design and installation requirements	The designs shown in Figure 5, Schedule 2 are preliminary in nature. As such, a minor amendment to the condition wording is suggested. The licensee acknowledges that minor variations to the displayed design can be captured and addressed when as constructed plans are provided to meet condition 3(b). However, there is currently no condition that allows for minor departures, which	See department response for Item 2

Item	Condition	Summary of applicant's comment	Department's response
	Condition 1 (Table 4, Item 3 – Overland conveyor, Western Range)  Design and construction requirement and/or installation requirement (a)	is usually a standard condition.  Suggested reword: The design of the overland conveyor be generally in accordance with the preliminary design show in Figure 5 in Schedule 2: Design detail.  Please note that should the above requested amendments to Conditions 2 & 3 be deemed acceptable, the suggested rewording of this condition will no longer be necessary.	
13	Schedule 3: Infrastructure and equipment – design and installation requirements  Condition 1 (Table 4, Item 3 – Overland conveyor, Western Range)  Design and construction requirement and/or installation requirement (c)	Minor corrections to the design information for the overland conveyor are required to accurate reflect the intended design. The conveyor will not be fully enclosed, as the proposed cover has open areas to the side. In addition to this, spray bars, water points and moisture and dust analyzers are not attached to all open areas of the conveyor. Water sprays are located at various internal along the length of the conveyor to manage dust. Operational experience has shown that this method is sufficient to reduce dust, as materials do not dry out between wetting points.  The Licensee request that the following suggested condition wording be applied to accurately reflect the proposed design intent:  c) The overland conveyor must  i) be covered for approximately 95% of the total length; and  ii) include dust suppression, moisture addition and dust analysing equipment	The Delegated Officer does not believe that these changes to design and construction requirements will increase the risk of dust emission from the construction and operation of the infrastructure.  The Delegated Officer has made these changes in the licence.
14	Schedule 3: Infrastructure and equipment – design and installation requirements  Condition 1 (Table 4, Item 4 – Existing processing facilities, Paraburdoo)  Design and construction requirement and/or installation requirement (c)	The designs shown in Figure 6, Schedule 2 are preliminary in nature. As such, a minor amendment to the condition wording is suggested. The licensee acknowledges that minor variations to the displayed design can be captured and addressed when as constructed plans are provided to meet condition 3(b). However, there is currently no condition that allows for minor departures, which is usually a standard condition.  Suggested reword: The design of the Coarse Ore Stockpile be generally in accordance with the preliminary design show in Figure 6, Schedule 2: Design detail.  Please note that should the requested amendments to Conditions 2 & 3 be deemed acceptable, the suggested rewording of this condition will no longer be necessary.	See department response for Item 2

Item	Condition	Summary of applicant's comment	Department's response	
15	Schedule 3: Infrastructure and equipment – design and installation requirements	Minor corrections to condition wording has been identified to accurately reflect the design intent of modifications proposed to the existing Coarse Ore Stockpile, as well as proposed upgrades to the existing Scalping screens.	The suggested change to infrastructure description is operational in nature and the Delegated Officer notes that applicant controls as specified in the decision report are	
	Condition 1 (Table 4, Item 4 – Existing processing facilities, Paraburdoo)	The Licensee requests that the below wording be used in place of the existing Condition (b) wording:	unchanged. The Delegated Officer does not believe that	
	Design and construction	b) Modifications to the existing Coarse Ore Stockpile which involves:	these changes to design and construction	
	requirement and/or installation requirement (b) and (c)	i) removal of concrete vault sections, apetures (holes) and their chute openings, air operated clam shell isolation gates, vibrating feeders including the chute work, and tail ends of the discharge conveyors; and	requirements will increase the risk of emission from the construction and operation of the infrastructure.	
		ii) installation of new concrete vault sections, apron feeders, chute work, discharge conveyors and services	The Delegated Officer has made these changes in the works approval.	
		c) Upgrade of the existing Scalping Screens and surrounding platforms and chute work		
16	Schedule 3: Infrastructure and equipment – design and installation requirements	The designs shown in Figure 9, Schedule 2 are preliminary in nature. As such, a minor amendment to the condition wording is suggested. The licensee acknowledges that minor variations to the displayed design can be captured and	See department response for Item 2	
	Condition 1 (Table 4, Item 6 – Class II putrescible landfill)	addressed when as constructed plans are provided to meet condition 3(b). However, there is currently no condition that allows for minor departures, which is usually a standard condition.		
	Design and construction requirement and/or installation requirement (a)	The Licensee requests that the design and installation requirements for the Class II putrescible landfill be reworded as per below:		
	isquiisiii (a)	a) The design of the landfill be generally in accordance with the preliminary design show in Figure 9 in Schedule 2: Design detail.		
		Please note that should the requested amendments to Conditions 2 & 3 be deemed acceptable, the suggested rewording of this condition will no longer be necessary.		
17	Schedule 3: Infrastructure and equipment – design and	The requested amendments proposed to the Class II putrescible landfill apply to Class II putrescible landfill - for construction wastes infrastructure.	See department response for Item 2	
	installation requirements	The Licensee requests that the design and installation requirements for the Class II putrescible landfill - for construction wastes be reworded as per below:		

Item	Condition	Summary of applicant's comment	Department's response
	Condition 1 (Table 4, Item 7 – Class II putrescible landfill – for construction wastes)	a) The design of the landfill be generally in accordance with the preliminary design show in Figure 9 in Schedule 2: Design detail.	
	Design and construction requirement and/or installation requirement (a)	Please note that should the above requested amendments to Conditions 2 & 3 be deemed acceptable, the suggested rewording of this condition will no longer be necessary.	
18	Schedule 3: Infrastructure and equipment – design and installation requirements  The designs shown in Figure 10-12, Schedule 2 are preliminary in nature. As such, a minor amendment to the condition wording is suggested. The licensee acknowledges that minor variations to the displayed design can be captured and addressed when as constructed plans are provided to meet condition 3(b).		See department response for Item 2
	Condition 1 (Table 4, Item 8 – Heavy vehicle refuelling facility)	However, there is currently no condition that allows for minor departures, which is usually a standard condition.	
	Design and construction requirement and/or installation requirement (a)	Suggested reword: The design of the heavy vehicle refuelling facility be generally in accordance with the preliminary design show in Figure 10-12 in Schedule 2: Design detail.	
		Please note that should the requested amendments to Conditions 2 & 3 be deemed acceptable, the suggested rewording of this condition will no longer be necessary.	
19	Schedule 3: Infrastructure and equipment – design and installation requirements	The designs shown in Figure 13, Schedule 2 and Figure 14, Schedule 2 are preliminary in nature. As such, a minor amendment to the condition wording is suggested. The licensee acknowledges that minor variations to the displayed	See department response for Item 2
	Condition 1 (Table 4, Item 9 – Temporary bulk refuelling facilities)	design can be captured and addressed when as constructed plans are provided to meet condition 3(b). However, there is currently no condition that allows for minor departures, which is usually a standard condition.	
	Design and construction requirement and/or installation requirement (a) and (b)	Suggested rewording:	
		a) The design of the camp temporary bulk refuelling facility be generally in accordance with the preliminary design show in Figure 13 in Schedule 2: Design detail.	
		b) The design of the camp Western Range temporary bulk refuelling facility be generally in accordance with the preliminary design show in Figure 14 in Schedule 2: Design detail.	
		Please note that should the requested amendments to Conditions 2 & 3 be deemed acceptable, the suggested rewording of this condition will no longer be	

Item	Condition	Summary of applicant's comment	Department's response
		necessary.	
Draft	Decision Report comments		
20	Cover Page (Page i)	The works approval now includes operations at Paraburdoo Iron Ore Mine, the Eastern Range Project and the Western Range Project  The Delegated Officer has made this change the decision report.  Please include Western Range in the Premise detail description	
21	Section 2.2 (Page 1)	The Licensee notes DWER decision report comments in relation to 'subsequent landfills' and seeks confirmation that when included in a licence amendment, the landfill sites could be authorised anywhere within the prescribed premise boundary. Existing design and installation requirements will ensure the sites proper management. Allowing this degree of flexibility will ensure fewer licence amendments are required in future.  No change required	
22	Section 3	The term "surge bins" may require updating to align with changes requested to the draft works approval.  Please use baghouse chambers/baghouse hopper in place of surge bins within Table 1.	The Delegated Officer agreed to the descriptive change in licence and in decision report and has made the suggested modification in both documents.
23	Section 3	The conveyor will not be fully enclosed and spray bars, water points, moisture and dust analyzers will not be located at all open areas.  Please update Table 1 and replace "enclosed" with "covered"  Please update controls within Table 1 to align/consider suggested condition rewording relating to the overland conveyor (provided below):  c) The overland conveyor must  i) be covered for approximately 95% of the total length; and  ii) include dust suppression, moisture addition and dust analysing equipment	The Delegated Officer does not believe that these changes to controls increase the risk of dust emission from the construction and operation of the infrastructure.  The Delegated Officer has made these changes in the decision report.

## **Appendix 2: Application validation summary**

SECTION 1: APPLICATION SUMMARY				
Application type				
Works approval ⊠		Existing Licence L5275/1972/12		
Date application received		23/12/21		
Applicant and Premises details				
Applicant name/s (full legal name/s)		Pilbara Iron Company (Services) Pty Ltd (PICS)		
Premises name		Paraburdoo Iron Ore Mine and Eastern Range Project		
Premises location		<ul> <li>The proposed activities are located within the Prescribed Premises boundary of L5275/1972/12; and</li> <li>on State Agreement Mineral Lease 246SA and ML4SA (Section 236 &amp; 237) granted pursuant to the Iron Ore (Hamersley Range) Agreement Act 1968; and</li> <li>on Miscellaneous and General Purpose leases granted under the Mining Act 1978 (WA) including G4SA, G14SA and L47/326</li> </ul>		
Local Government Authority		Shire of Ashburton		
Application documents				
HPCM file reference number:		DER2021/000744		
Key application documents (additional to application form):		<ul> <li>Supporting document outlining proposal details, commissioning plan, siting, emissions management, and control etc.</li> <li>Report on Geochemical characterisation of waste rock and tailings (SRK Consulting)</li> </ul>		
Scope of application/assessment				
Summary of proposed activities or changes to existing operations.		Cat 5		

## Category number/s (activities that cause the premises to become prescribed premises)

#### Table 1: Prescribed premises categories

Prescribed premises category and description	Proposed production or design capacity	Proposed changes to the production or design capacity
Category 5	No change proposed (current approval under licence for 30 million tpa)	NA
Category 12	No change proposed (current approval for 10 million tpa)	NA
Category 64	Proposed increase from 5,000 tonnes to 34,000 tpa	Increase of 29,000 tpa
Category 73	Proposed increase from 5,903 tonnes to 7,653 cubic meters	Increase of 1,750 cubic meters

#### Legislative context and other approvals

Legislative context and other approvals		
Has the applicant referred, or do they intend to refer, their proposal to the EPA		Referral decision No: 2189  Managed under Part V □
under Part IV of the EP Act as a significant proposal?		Assessed under Part IV ⊠
		As per EPA website:
		Currently at Stage 4 – EPA Report on assessment
	Yes ⊠ No □	Preliminary environmental factors relevant to the Proposal:
		Flora and vegetation;
		Terrestrial fauna;
		Subterranean fauna;
		Inland waters;
		Greenhouse emissions; and
		Social surroundings.
Does the applicant hold any existing Part IV Ministerial Statements relevant to the	Yes ⊠ No □	Ministerial statement No: 1195 (5 August 2022)
application?		EPA Report No: 1723
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ⊠ No □	Reference No: EPBC 2018/8341
		Certificate of title □
Has the applicant demonstrated	Yes □ No □	General lease ⊠ Expiry:
occupancy (proof of occupier status)?		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: 5090, 4594,4032, 6110
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
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ⊠ No □	Application reference No: Licence/permit No: GWL 109318
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: Has Regulatory Services (Water) been consulted? Yes □ No □ N/A □ Regional office:
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 □	Mining Act 1978
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes □ No ⊠	
Is the Premises subject to any EPP requirements?	Yes □ No ⊠	

Is the Premises a known or suspected contaminated site under the Contaminated Sites Act 2003?		Three portions of land within the premises boundary are known or suspected contaminated sites.  Classification:
	Yes ⊠ No □	1 x contaminated – restricted use 2 x possibly contaminated – investigation required
		Date of classification: 2012, 2015 and 2020