



Application for Works Approval

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

Works Approval Number W6623/2021/1

Applicant Pilbara Iron Company (Services) Pty Ltd

ACN 107 210 248

File number DER2021/000641

Premises Paraburdoo Iron Ore Mine and Eastern Range Project
ROCKLEA WA 6751

State Agreement Mining Lease ML246SA granted pursuant to the Iron Ore (Hamersley Range) Agreement Act 1968 (Attachment 2A).

As defined by the premises maps attached to the issued works approval

Date of report 11 May 2022

Decision Works approval granted

SUZY ROWORTH

A/MANAGER, RESOURCE INDUSTRIES

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

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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 of the premises. As a result of this assessment, works approval W6623/2021/1 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 <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary and overview of premises

On 09 November 2021, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application proposes to undertake construction works relating to a category 54 Wastewater Treatment Plant and category 73 Bulk Fuel Storage at the premises as part of a temporary (3 year) 1,600 person multipurpose camp located approximately 7.5 km south-west from the town of Paraburdoo. This camp is designed to support ongoing operations at the existing Paraburdoo Iron Ore Mine. This proposal is separate to the Greater Paraburdoo Iron Ore Hub Proposal assessed by the Environmental Protection Authority (EPA). Following construction and compliance licence L5275/1972/12 will need to be amended to regulate the infrastructure.

The premises relates to the categories and assessed production or design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6623/2021/1. 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 W6623/2021/1.

2.2.1 Premises operation

The Applicant proposes to operate a Moving Bed Biofilm Reactor (MBBR) wastewater treatment plant (WWTP) and irrigation sprayfield for the disposal of effluent to land. The WWTP has a treatment capacity of 400 m³/day. The treated sewage (herein referred to as treated wastewater) will then be discharged via irrigation to a 10.0 ha sprayfield at a rate of up to 400 m³ /day. Domestic sewage will be received at the premises from the camp's sewer system and treated through a package WWTP comprised of the following systems:

- Self-cleaning influent screen
- Balance tanks (7 x 30m³ = 210m³)
- Process tanks (2 x 30m³ for each MBBR):
 - Anoxic (De-nitrification)
 - Aeration Tank
- Effluent tank (1 x 10m³ for each MBBR)
- Clarifier tanks (2 x 25m³ for each MBBR)
- Primary and secondary settling tanks
- Air blowers
- Equipment skids

- Transfer pumps, Mobile Media, piping, valves, control
- panel, electrical switchgear

Following the biological and chemical treatment process, the treated wastewater being discharged to the irrigation sprayfield is intended to meet the specifications listed in Table 1 below. Sludge produced by the WWTP and collected in the waste sludge tank will be periodically removed for offsite disposal at an appropriately licensed facility.

Table 1: Treated wastewater quality

Parameter	Concentrations
5 Day Biochemical oxygen demand (BOD ₅)	<20mg/L
Total Suspended Solids	<30mg/L
Total Nitrogen	<30mg/L
Total Phosphorus	<8mg/L
pH	6.5 - 8.5
Thermotolerant coliforms	<1000cfu/100mL

In addition, the Applicant proposes to install and operate a Bulk Fuel Storage facility within the southern portion of the multipurpose camp to provide diesel fuel during the construction and operation of the same camp. The Bulk Fuel Storage will comprise of:

- Diesel tanks (2 x 110kL)
- A tank access ladder (1 x to access both tanks)
- Fuel line (above ground)
- Fuel forwarding pumps and refuelling filter (5x)
- Safety features directly associated with the fuel tanks
- Refuelling and unloading pad (liner covered with earth and concrete)
- Safety shower and eye wash (2x)
- Fire hydrant (1x)
- Protection bollards and safety barriers (as required)

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 which have been considered in this decision report are detailed in Table 2 below. Table 2 also details

the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 2: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust: Release of particulate matter from construction activities and vehicular movements.	Wastewater Treatment Plant including spray field.	Air / windborne pathway then deposition	<p>Dust will be managed via the requirements of the Works Approval, Part V Licence L5275/1972, Native Vegetation Clearing Permit (CPS5090) and standard operating procedures, including:</p> <ul style="list-style-type: none"> - Clearing will be managed to ensure that areas are only cleared as required and rehabilitation of cleared areas is implemented as construction is completed; and - Dust suppression will be implemented (including use of water trucks, control of vehicle movements / restricted speeds). - Works that have the potential to generate high dust levels may be restricted during times of high winds. <p>Standard management procedures are expected to effectively mitigate the risk of dust emissions during construction.</p>
	Bulk fuel storage facility		
Commissioning			
Activated sludge and waste sludge (raw sewerage)	Wastewater Treatment Plant including spray field – Biological Commissioning	Leaks/spills and overflow of sludge with elevated nutrient and pathogen levels causing contamination to natural soil or seepage to groundwater and or eutrophication of surface water.	<p>Perimeter bund and earthen sumps containing spill grates fabricated from galvanised steel.</p> <p>Surrounding the hardstands will be High Density Polyethylene (HDPE) lined, covered with compacted earth and will not incorporate any sump.</p> <p>Overflow mitigation (i.e., if final effluent tank is at maximum capacity, then feeder pumps will be switched off).</p> <p>Spill kit response will be provided.</p> <p>Daily operational checks will be undertaken in accordance with the checklist provided in Appendix A of Appendix 1, and weekly inspections as per Appendix B of Appendix 1. Maintenance in accordance with manufacturer requirements will be undertaken.</p> <p>Situating the WWTP in a location away from major creek lines, sensitive flora and/or vegetation, important native fauna habitat areas and towns.</p> <p>Situating the WWTP in a location where depth to groundwater is between 10-20 mbgl.</p> <p>Groundwater monitoring regime as per Part V Licence L5275/1972</p>
Treated effluent			

Emission	Sources	Potential pathways	Proposed controls
		and pathogen levels causing / seepage to groundwater / eutrophication of surface water.	<p>and a perimeter fence will be installed to restrict access to the irrigation area.)</p> <p>Monitoring of discharge effluent quality will be undertaken in principle accordance of Category D level of treatment (WQPN 22) demonstrate a trend towards the target values specified in Australian Guidelines for Sewerage Systems – Effluent Management (ANZECC 1997).</p> <p>The expected annual nutrient loading for the MBBR spray field is 438 kg/ha/yr (<30mg/L) for Total Nitrogen and 116.8 kg/ha/yr (<8mg/L) for Total Phosphorus.</p> <p>Daily operational inspections and weekly monitoring for sewage and effluent levels.</p> <p>Daily operational checks will be undertaken in accordance with the checklist provided in Appendix A of Appendix 1, and weekly inspections as per Appendix B of Appendix 1. This will include weekly inspections of the pipeline to the sprayfield area, checks for any pooling or malfunctioning sprinklers.</p> <p>Fortnightly monitoring/sampling of treated effluent quality and weekly monitoring of discharge volumes during commissioning.</p> <p>Situating the WWTP in a location away from major creek lines, sensitive flora and/or vegetation, important native fauna habitat areas and towns.</p> <p>Situating the WWTP in a location where depth to groundwater is between 10-20 mbgl.</p> <p>Groundwater monitoring regime as per Part V Licence L5275/1972.</p>
Operations			
Activated sludge and waste sludge (raw sewerage)	Wastewater Treatment Plant including spray field.	Leaks/spills and overflow of sludge with elevated nutrient and pathogen levels causing contamination to natural soil or seepage to groundwater and or eutrophication of surface water.	<p>Perimeter bund and earthen sumps containing spill grates fabricated from galvanised steel.</p> <p>Surrounding the hardstands will be High Density Polyethylene (HDPE) lined, covered with compacted earth and will not incorporate any sump.</p> <p>Overflow mitigation (i.e., if final effluent tank is at maximum capacity, then feeder pumps will be switched off).</p> <p>Spill response will be provided.</p> <p>Daily operational inspections and weekly monitoring for sewage and effluent levels.</p> <p>Situating the WWTP in a location away from major creek lines, sensitive flora and/or vegetation, important native fauna habitat areas and towns.</p> <p>Situating the WWTP in a location where depth to groundwater is between 10-20 mbgl.</p> <p>Groundwater monitoring regime as per Part V Licence L5275/1972</p>
Treated		Discharge of	The treated effluent will be disposed of to an

Emission	Sources	Potential pathways	Proposed controls
effluent		inadequately treated effluent to land (spray field) with elevated nutrient and pathogen levels causing / seepage to groundwater / eutrophication of surface water.	<p>appropriately sized spray field, as per WQPN 22 guidance (DoW 2018).</p> <p>Surface water management structures (including a windrow will be placed along the access track to the spray field to separate LV's from the effluent pipeline; and a perimeter fence will be installed to restrict access to the irrigation area.)</p> <p>Monitoring of discharge effluent quality will be undertaken in principle accordance of Category D level of treatment (WQPN 22) and will not exceed target values specified in Australian Guidelines for Sewerage Systems – Effluent Management (ANZECC 1997).</p> <p>The expected annual nutrient loading for the MBBR spray field is 438 kg/ha/yr (<30mg/L) for Total Nitrogen and 116.8 kg/ha/yr (<8mg/L) for Total Phosphorus.</p> <p>Daily operational inspections and weekly monitoring for sewage and effluent levels.</p> <p>Daily operational checks will be undertaken in accordance with the checklist provided in Appendix A of Appendix 1, and weekly inspections as per Appendix B of Appendix 1. This will include weekly inspections of the pipeline to the sprayfield area, checks for any pooling or malfunctioning sprinklers.</p> <p>Quarterly monitoring/sampling of treated effluent quality and weekly monitoring of discharge volumes.</p> <p>Situating the WWTP in a location away from major creek lines, sensitive flora and/or vegetation, important native fauna habitat areas and towns.</p> <p>Situating the WWTP in a location where depth to groundwater is between 10-20 mbgl.</p> <p>Groundwater monitoring regime as per Part V Licence L5275/1972.</p>
Diesel (Hydrocarbons)	Bulk fuel storage facility	Leaks/spills of hydrocarbons causing contamination to the soil and seepage to groundwater.	<p>Hydrocarbons will be managed via relevant legislation (including Australian Standard AS 1940-2004: Storage and handling of flammable and combustible liquids) as well as the requirements of the Works Approval and the Part V Licence L5275/1972 (e.g. Condition 2: Stormwater management).</p> <p>Hydrocarbons will also be managed using standard operating procedures, including:</p> <ul style="list-style-type: none"> - Fuel storage tanks will be designed and constructed to AS 1940-2004: The storage and handling of flammable and combustible liquids; - Management structures (bundling / secondary containment) will be installed at all hydrocarbon storage and refuelling facilities to ensure any spills are contained; - Appropriate labelling of storage areas and storage containers; - spill response will be provided; - Suitable impact or collision protection installed around the facility to prevent vehicle impacts

Emission	Sources	Potential pathways	Proposed controls
			<p>Standard hydrocarbon management procedures are expected to effectively mitigate the risk of hydrocarbon spills during operations:</p> <ul style="list-style-type: none"> - suitable impact or collision protection installed around the facility to prevent vehicle impacts; - the fuel storage area will have a roll-over bund installed to prevent release of hydrocarbons in the event of a spill or leak during refuelling; - overfill protection will be provided by an alarm sounding and the flow of liquid being stopped before the tank overflows; - appropriate incident response equipment (spill kit, fire extinguishers) will be installed within the fuel storage; - leak detection system will be installed with an audible alarm; - refueling apron to be established on compacted and lined surface; and - diesel storage tanks to be double-walled - any potentially contaminated surface water will be directed to installed grates and earthen sumps containing spill grates which will be pumped out periodically and removed offsite to a licensed facility by a licensed controlled waste carrier. - Surrounding the hardstands will be High Density Polyethylene (HDPE) lined, covered with compacted earth and will not incorporate any sump.

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 3 and Figure 1, Figure 2, Figure 3, Figure 4 and Figure 5 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

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

Human receptors	Distance from prescribed activity ¹
No human receptors within 1 km of the proposal. ²	-
Environmental receptors	Distance from prescribed activity
Minor ephemeral creek and riparian vegetation	100 m to the north
Ephemeral Seven Mile Creek	870 m to the southeast

Groundwater	Averages 2.9 and 8.5 mbgl 1 km from the project area.
Pre-European native vegetation – Acacia sparse shrubland/+ <i>Triodia hummock</i> grassland	Within 25 m

1. This proposal is separate to the Greater Paraburdoo Iron Ore Hub Proposal assessed by the Environmental Protection Authority (EPA) and is considered an expansion of the existing operations at Paraburdoo and Eastern Range which is not subject to a Ministerial Statement issued under Part IV of the *Environmental Protection Act 1986* (EP Act).
2. Ethnographic surveys occurred in 2013 and 2019 with the full involvement of Yinhawangka Traditional Owners. Nine archaeological heritage sites were identified and the Yinhawangka acknowledge those sites are to be avoided.

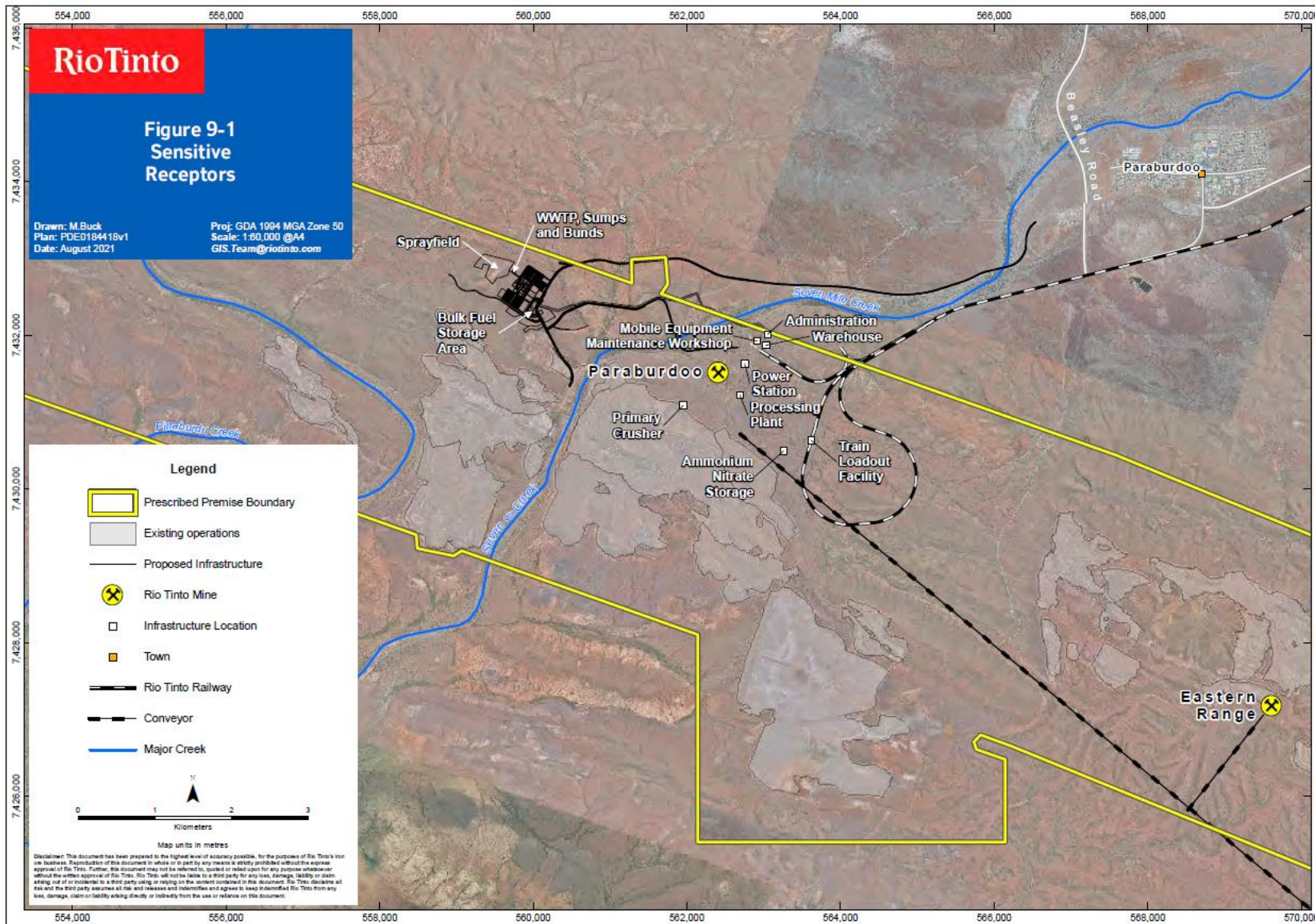


Figure 1: Distance to sensitive receptors

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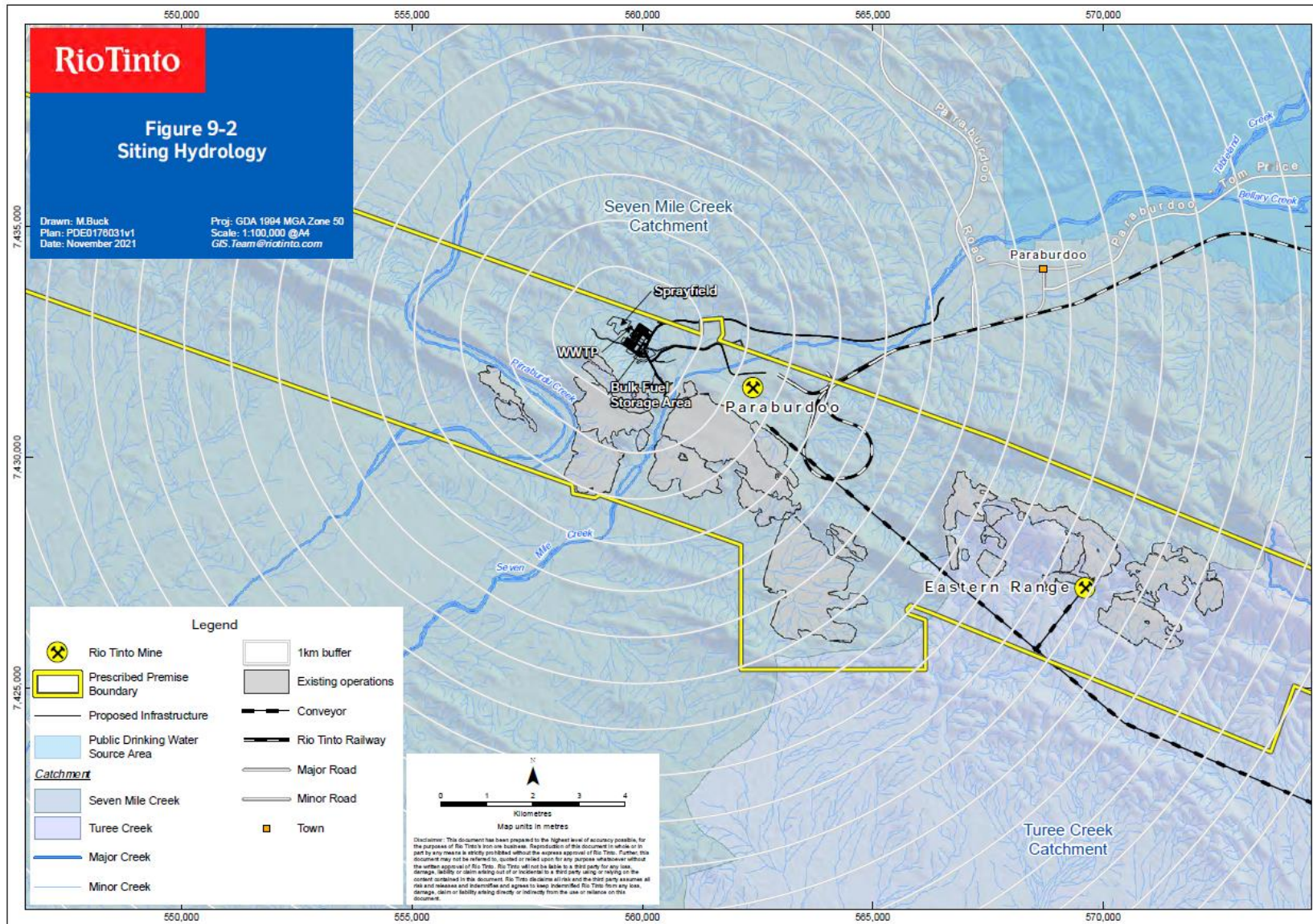


Figure 2: Siting Hydrology

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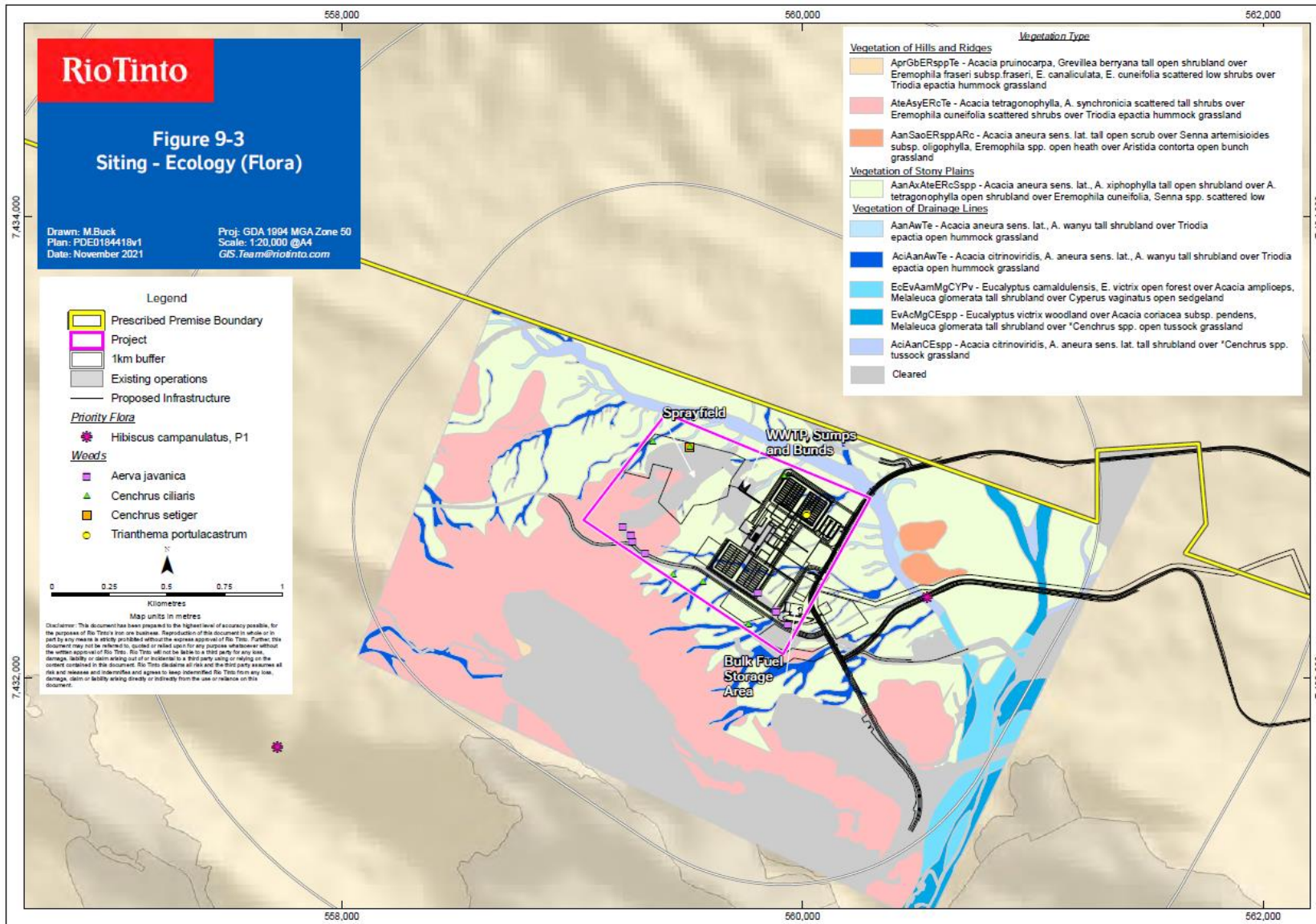


Figure 3: Siting – Ecology (Flora)

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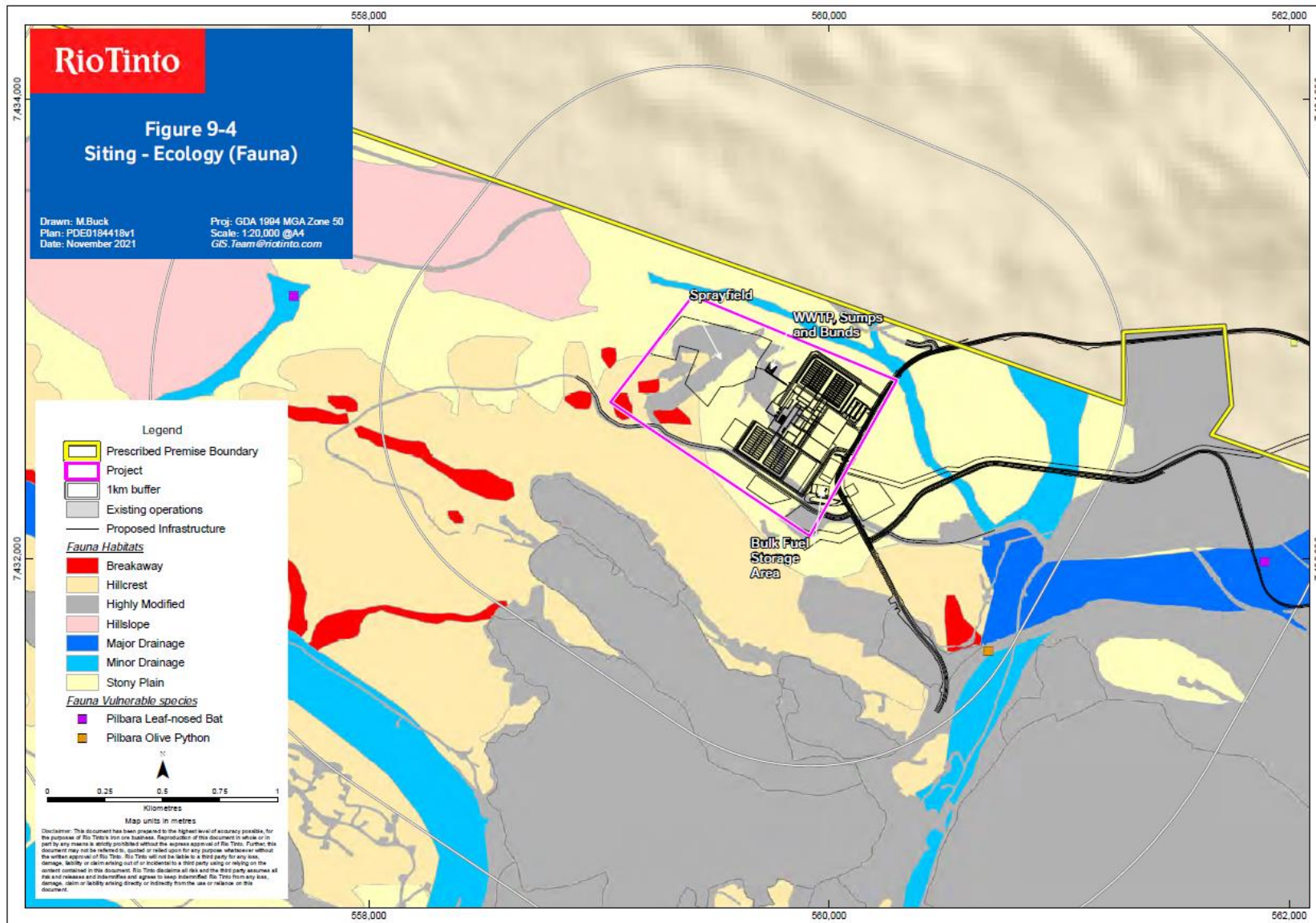


Figure 4: Siting – Ecology (Fauna)

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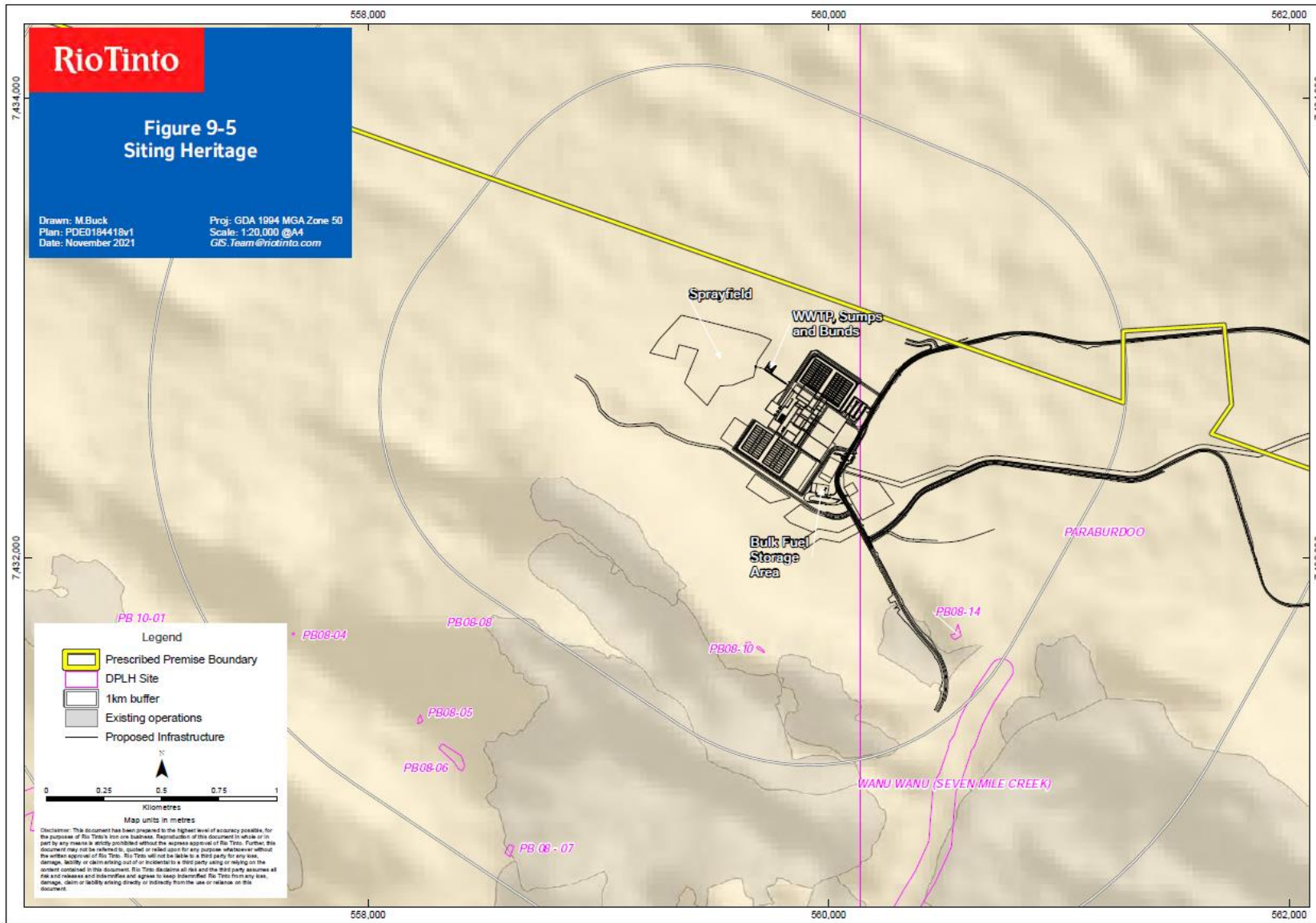


Figure 5: Siting Heritage

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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 4.

Works approval W6623/2021/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 4 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. WWTP and Bulk fuel storage area. 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 4: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Construction								
Wastewater Treatment Plant including spray field.	Dust: Release of particulate matter from construction activities and vehicular movements	Air / windborne pathway then deposition, causing smothering and potential suppression of photosynthesis and increase in nutrient load.	Minor ephemeral creek and riparian vegetation	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Works approval condition 1, Table 1, condition 2, 3.	N/A
Bulk fuel storage facility			Ephemeral Seven Mile Creek Pre-European native vegetation					
Commissioning								
Wastewater Treatment Plant including spray field – Biological Commissioning	Activated sludge and waste sludge (raw sewerage)	Leaks/spills/overflow of effluent with elevated nutrient and pathogen levels causing contamination to natural soil and fresh water.	Minor ephemeral creek and riparian vegetation Ephemeral Seven Mile Creek Pre-European native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y (refer to Table 2 operational controls)	Work approval conditions 4, 5 6, 7 8, 9,10	N/A
	Inadequately Treated effluent	Discharge of inadequately treated effluent to land (spray field) with elevated nutrient and pathogen levels causing / seepage to groundwater / eutrophication of surface water.		Refer to Section 3.1	C = Moderate L = Possible Medium Risk	Y (refer to Table 2 operational controls)	Work approval conditions 4, 5 6, 7 8, 9,10	WWTP effluent quality to be established. New category, standard conditions to be included in the licence to monitor performance.
	Chemical laden effluent (i.e. chlorine from trichloroisocyanuric acid)	Spills/leaks/discharge of chloring laden effluent from inadequate chlorine contact time, sterilising soil and vegetation of bacteria.		Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y (refer to Table 2 operational controls)	Work approval conditions 4, 5 6, 7 8, 9,10	New category, standard conditions to be included in the licence.

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Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Operation (including time-limited-operations operations)								
Wastewater Treatment Plant including spray field.	Activated sludge and waste sludge (raw sewerage)	Leaks/spills of sludge with elevated nutrient and pathogen levels causing contamination to natural soil/seepage to groundwater /eutrophication of surface water.	Minor ephemeral creek and riparian vegetation Ephemeral Seven Mile Creek Groundwater Pre-European native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 11, 12, 13, 14, 15, 16, 17, 18, 19	Monitoring conditions will be added onto the licence to ensure ongoing performance on a quarterly basis.
	Treated effluent	Discharge/overspray/spray drift and run-off of inadequately treated effluent to spray field resulting in accumulation of nutrient and pathogens which contaminate surface water, soil, and seep to groundwater.		Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 11, 12, 13, 14, 15, 16, 17, 18, 19	Monitoring conditions will be added onto the licence to ensure ongoing performance on a quarterly basis. Review/updates of groundwater monitoring in the vicinity of WWTP if necessary
	Chemical laden effluent (i.e. chlorine from trichloroisocyanuric acid)	Spills/leaks/discharge of chloring laden effluent from inadequate chlorine contact time, sterilising soil and vegetation of bacteria.		Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 11, 12, 13, 14, 15, 16, 17, 18, 19	Monitoring conditions will be added onto the licence to ensure ongoing performance on a quarterly basis.
Bulk fuel storage facility	Diesel (Hydrocarbons)	Leaks/refueling spills of hydrocarbons causing contamination to stormwater runoff, the soil and seepage to groundwater.	Groundwater	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Conditions 13	Existing licence conditions (L5275). Review of groundwater monitoring if necessary

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.

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4. Consultation

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

Table 5: Consultation

Consultation method	Comments received	Department response
DOH advised of proposal on 11 January 2022.	The DOH has no objection to the above proposal provided that the Wastewater Treatment Plant associated with this project is considered and approved by the DOH.	To ensure the Hamersley Iron has the WWTP approved by the DOH prior to operating.
Advert posted in The West Australian on 10 January 2022	No comments were received.	To determine any objections to the works.
Rio Tinto were provided with an RFI upon receipt of payment for validation on 07 January 2022.	Rio Tinto provided DWER a response to the RFI on the 04 February 2022.	DWER deemed the responses sufficient to continue with the assessment on 09 February 2022.

5. 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. Following construction and compliance, licence L5275/1972/12 will need to be amended to regulate the infrastructure for ongoing operation.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. Department of Water and Environmental Regulation 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Environmental Protection Authority (EPA) 2018, *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual*, Environmental Protection Authority, Perth, WA.
5. Government of Western Australia 2021. *Environmental Protection Act 1986 (EP Act)*
6. Government of Western Australia 2020. *Environmental Protection Regulations 1987 (EP Regulations)*
7. Snooks & Co 2002, *Style Manual for Authors*, 6th Edn, John Wiley & Sons Australia Ltd, Brisbane.

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

Drafting Round 1

Section of Decision Report	Summary of applicant's comment	Department's response
Table 2	Request the following change in wording from "and will not exceed target values specified in Australian Guidelines for Sewerage Systems – Effluent Management (ANZECC 1997) to demonstrate" to "a trend towards the target values specified in Australian Guidelines for Sewerage Systems – Effluent Management (ANZECC 1997)."	Wording updated.
Table 2	Requests the following change in wording: From "Quarterly" to "Fortnightly". Inclusion of "during commissioning".	Wording updated.

Condition of Works Approval	Summary of applicant's comment	Department's response
1, Table 1, 1. g)	The Licence holder requests that condition 1.g) is reworded to the following: "Sumps will be constructed using modular galvanised spill grates and will be pumped out periodically and removed to an appropriate licenced facility"	Condition reworded.
1, Table 1, 2. b)	To rewrite the equipment list from specifying number of tanks required in WWTP to total capacities required.	Table adjusted.
1, Table 1, 2. e)	Removal of conditions e and f as were not applicable to the WWTP but rather the Bulk Fuel Storage facility.	Conditions removed.
1, Table 1, 2. j)	Removal of condition 2j as the condition was not considered necessary.	Conditions removed.
1, Table 1, 2. ii)	Inclusion of target value <20mg/L.	Target value added.
1, Table 1, 2. i)	Reword condition from "output emission standards" to 'target discharge criteria'.	Condition reworded.

Condition of Works Approval	Summary of applicant's comment	Department's response
1, Table 1, 2. l)	Inclusion of 'for effluent' to the end of the sentence.	'For effluent' added.
1, Table 1, m)	Administrative changes.	Condition adjusted.
1, Table 1, 2. m) iv)	Administrative change.	Condition adjusted.
1, Table 1, 3. d)	Request removal of 3. d as condition 3. e) will be sufficient.	Conditions removed.
1, Table 1, 3.f)	Rewording to 'Ensure that no treated effluent is "discharged outside of the sprayfield"'	Condition reworded.
1, Table 1, 4. d)	Request to include "2008" is added onto the AS number.	"2008" added.
5, Table 2, Stage 1, c)	Rewording to read "No treated effluent is permitted to "discharge outside of the sprayfield" identified in Schedule 1, Figure 2."	Condition reworded.
5, Table 2, Stage 2, e-i)	Administrative changes.	Condition adjusted.
5, Table 2, Stage 2, MBBR WWTP a)	Requests condition is reworded to "to demonstrate the WWTP is trending towards stabilised discharge quality target values".	Propose to change 'target values' to 'quality criteria as outlined in Table 4'.
5, Table 2, Stage 2, Sprayfield a)	Include "per MBBR skid".	Wording included.
6, Table 3, 1.	Administrative changes.	Condition adjusted.
7, including Table 4.	Request removal of condition as to not exceed the specified limits will not be possible.	Changed phrasing of "do not exceed" with "trend towards". Changed "limit" with "target".
8, Table 5.	Relocation of table 5 from condition 9 to condition 8. Frequency of monitoring changed from 'quarterly' to 'fortnightly'.	Table relocated and frequency wording updated.
9	Merge conditions 8 and 9 to read "The works approval holder must monitor emissions during environmental commissioning in accordance	Conditions merged.

Condition of Works Approval	Summary of applicant's comment	Department's response
	with Table 5 <i>and record the results of all monitoring.</i> "	
11 (now 10) b)	Removal of term 'ambient concentrations.	Words removed.
11 (now 10) c) ii)	Change "Environmental" with "Biological" to make terminology consistent.	Condition reworded.
12 (now 11) a)	Change "or" with "and".	Condition reworded.
12 (now 11) b)	Updated condition number referred to.	Updated to reflect final condition numbering.
14, (now 13) Table 6, 1. a)	Replace "ensure no leaks" with "Leaks to be minimised via leak detection system and remedied as soon as practicable."	Condition reworded. Propose to change 'practicable' with 'possible' to standardise condition terminology.
14, (now 13) Table 6, 3. a)	Correct "133m ³ " to "400m ³ ".	Corrected.
16 and 17 (now 15)	Conditions to be merged as they are once sentence split into two.	Conditions merged.
17 (now 16) Table 8	Change "limits" to "targets".	<p>Changed 'targets' to 'reportable limit' so an exceedance of values allows RTIO to remain compliant but must report exceedances.</p> <p>DWER considers the size of the WWTP and medium risk justify reportable limits being in place to ensure where there is an exceedance, actions are taken to correct the plant operation (and ultimately the discharging effluent quality). Note the reportable limit means you are only non-complaint if you do not report to DWER in accordance with the relevant conditions. Current licence has no WWTP monitoring, groundwater is relatively shallow and there are drainage channels to the north.</p>
18, Table 9	Update "Schedule 3" to "Schedule 2". Change "N/A" to "In situ".	Wording updated.
20 b)	Update condition numbers.	Updated to reflect final condition numbering.
22 b) 22 e)	Update condition numbers.	Updated to reflect final condition numbering.

Condition of Works Approval	Summary of applicant's comment	Department's response
23	Update condition numbers.	Updated to reflect final condition numbering.
Schedule 1: Maps Premises Map	Request (<i>Error! Reference source not found.</i>) is updated to Figure 1.	Updated to remove the error and replace with Figure 1.
Schedule 1: Maps Sprayfield Map	Map of the boundary of the sprayfield is incorrect. Request updating map match the sprayfield boundary in Figure 1.	Figure removed.

Drafting Round 2

Condition of Works Approval	Summary of applicant's comment	Department's response
1, Table 1, 2. i)	The Licence holder requests that the word "target" remains in Condition 2.i).	The word will remain to align with Commissioning and TLO.
5, Table 2 Stage 1 - Wet Commissioning, (b)	The Licence holder understands the word "test" should be at the end of the sentence of a) and not on its own line. i.e. a) to turn on the system and test:	Consolidated onto one line.
5, Table 2 Stage 2, Environmental Commissioning Requirements, c)	The Licence holder requests the word "from" is changed to the word "outside of". c) No treated effluent is permitted to discharge from outside of the sprayfield identified in Schedule 1, Figure 3.	Second instance of "from" changed to "outside of" for consistent wording throughout Table 2.
7	Administrative change: Table 4 should be Table 3 and condition 8 should be Table 4.	Updated.
11 (b)	Condition 11 should refer to Condition 10.	Updated.
12 (a)	The reference to condition 8 should instead be referencing condition 9.	Updated.
13	Administrative change: "400 m ³ " is reworded to 400 m ³ /day.	Updated.
15	Incomplete sentence. Licence holder understands this sentence should be referring to Table 7 at the end of the sentence.	Sentence completed with "trends towards the corresponding reportable limit(s) when monitored in accordance with condition 16." Targets updated to reportable limits.

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		Included reference to the NWQMS.
16	The Licence holder understands Table 8 in Condition 16 is a duplication of Table 8 in Condition 15 and is requested to be removed.	Removed. Targets updated to reportable limit.
17	The Licence holder understands Condition 17 is a duplication of Condition 18 and is requested to be removed.	Removed.

Section of Decision Report	Summary of applicant's comment	Department's response
Table 2	<p>In the Works Approval application and during the response to first draft of the Works Approval instrument, the Licence holder requested that during commissioning and TLO, the discharge quality criteria does not exceed the values specified in Australian Guidelines for Sewerage Systems – Effluent Management (ANZECC 1997).</p> <p>However, this was not incorporated into the DRAFT 2 Works Approval conditions. The Licence Holder requests that DWER please provide an explanation within the Decision Report (Version 2) as to why the ANZECC 1997 values were not incorporated into the conditions and why they are not perhaps considered appropriate.</p>	Values are in Tables 1, 4 and 8.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Works approval	<input checked="" type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input type="checkbox"/>	Current licence number:		
		Relevant works approval number:		N/A <input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:		None <input type="checkbox"/>
Date application received	09 November 2021			
Applicant and premises details				
Applicant name/s (full legal name/s)	Pilbara Iron Company (Services) Pty Ltd (PICS) (107 210 248)			
Premises name	Paraburdoo Iron Ore Mine and Eastern Range Project			
Premises location	State Agreement Mining Lease ML246SA granted pursuant to the Iron Ore (Hamersley Range) Agreement Act 1968 (Attachment 2A). Rocklea WA 6751.			
Local Government Authority	Shire of Ashburton			
Application documents				
HPCM file reference number:	DER2021/000641~1			
Key application documents (additional to application form):	<ul style="list-style-type: none"> • Works Approval Application Form_ Multipurpose Camp • Attachment 1C: Authorisation to Act as a Representative of the Occupier • Attachment 2A: Premises Maps • Attachment 2B: Project Layout • Attachment 8A: Multipurpose Camp Works Approval Supporting Documentation (RTIO-HSE-0355373) 			

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)

Scope of application/assessment

Summary of proposed activities or changes to existing operations.	<p><i>Works approval</i></p> <p>This application is for the construction, commissioning and time limited operation of the WWTP and sprayfield (Category 54) and two bulk fuel storage facilities (Category 73) to support the camp operation.</p>
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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 (amendments only)
Category 54: Sewage facility.	<p>Maximum production: 400m³/day</p> <p>Actual throughput: 75-300m³/day</p> <p>The expected annual nutrient loading for the MBBR spray field is 438 kg/ha/yr (<30mg/L) for Total Nitrogen and 116.8 kg/ha/yr (<8mg/L) for Total Phosphorus.</p>	
Category 73: Bulk Storage of Chemicals.	<p>Additional Maximum production: 220 cubic metres</p> <p>Additional Actual Throughput: 220 cubic metres</p> <p>Total Maximum Production: 6123 cubic metres</p>	

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: N/A 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: No – a valid permit applies: CPS [5090]
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)

<p>Has the applicant obtained all relevant planning approvals?</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p>	<p>Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:</p>
<p>Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/></p>	<p>Approval: Expiry date: If N/A explain why? <i>An application to construct an apparatus for the treatment of sewage will be submitted to the Shire of Ashburton for assessment.</i></p>
<p>Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>CPS No: 5090 <i>Any clearing required for the proposed facilities will be authorised via existing approvals (CPS 5090). No additional approval for clearing will be sought for this Proposal.</i></p>
<p>Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Application reference No: N/A Licence/permit No: N/A No – Licence not required.</p>
<p>Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Application reference No: Licence/permit No: GWL109318</p>
<p>Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Name: Pilbara Surface Water Areas Type: Proclaimed Surface Water Areas Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: Mid-West Gascoyne</p>

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)

<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 checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>The proposed amendments/activities are located within the Prescribed Premises boundary of L5275/1972/12 and on State Agreement Mining Lease ML246SA granted pursuant to the Iron Ore (Hamersley Range) Agreement Act 1968 (Attachment 2A).</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 checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Classifications:</p> <ul style="list-style-type: none"> • x2 Possibly contaminated – investigation required (PC–IR) • x1 Contaminated – restricted use (C–RU). <p>Date of classifications:</p> <ul style="list-style-type: none"> • Jan 31, 2012 8:00 AM • Apr 9, 2015 8:00 AM <p>Apr 16, 2020 8:00 AM</p>