RioTinto

Rio Tinto
L18, Central Park
152-158 St Georges Terrace
Perth
WA, 6000
Australia

Private & confidential

[redacted]
Manager Resource Industries
Department of Water and Environmental Regulation
Prime House
Locked Bag 10
Joondalup, WA 6919

Our reference: RTIO-1100130 and AR-24-19167

Date
26 May 2025

Dear [redacted],

RE: Railway Division Arches North Laydown – Works Approval Application

Pilbara Iron Pty Ltd (the Licensee), a wholly owned subsidiary of Rio Tinto, maintains and operates approximately 1,980 kilometres (km) of heavy freight railway network for the transportation of iron ore from Rio Tinto's 17 mining operations in both the East and West Pilbara to either the Cape Lambert, Parker Point or East Intercourse Island port facilities for export. The Railway Division are currently undertaking a significant ballast cleaning programme across the entire integrated rail network. The Licensee is seeking a Works Approval to support crush and screen and stockpiling activities as required under Part V of the *Environmental Protection Act 1986*.

The Works Approval Application is for the installation and operation of a mobile crushing screening plant (Category 13) and stockpiling (Category 61A) of degraded rail civil material at the Arches North Laydown on the Deepdale Mainline.

Enclosed is an application form and works approval supporting document. The supporting document includes a process description, risk identification and assessment, and proposed controls for the management of potential emissions.

If you require any further information or would like to discuss the application, please contact [redacted] on [redacted] or at [redacted]

Yours sincerely,

[redacted]
Principal, Government Approvals East

Application form: Works Approval / Licence / Renewal / Amendment / Registration

Part V Division 3, *Environmental Protection Act 1986*
Environmental Protection Regulations 1987

Part 1: Application type

INSTRUCTIONS:

- **Completion of this form is a statutory requirement under s.54(1)(a) of the *Environmental Protection Act 1986* (WA) (EP Act) for works approval applications; s.57(1)(a) for licence and licence renewal applications; s.59B(1)(a) for applications for an amendment; and under r.5B(2)(a) of the Environmental Protection Regulations 1987 (WA) (EP Regulations) for applications for registration of premises.**
- **The instructions set out in this application form are general in nature.**
- **A reference to 'you' in these instructions is a reference to the applicant.**
- **The information provided to you by the Department of Water and Environmental Regulation (DWER) in relation to making applications does not constitute legal advice. DWER recommends that you obtain independent legal advice.**
- **Applicants seeking further information relating to requirements under the EP Act and/or EP Regulations are directed to the Parliamentary Counsel's Office website (www.legislation.wa.gov.au). Schedule 1 of the EP Regulations contains the categories of prescribed premises.**
- **For prescribed premises where activities fall within more than one category, ALL applicable categories must be identified. This applies for existing prescribed premises seeking renewal or amendment, as well as new prescribed premises.**
- **The application form must be completed with all relevant information attached. Attachments can be combined and submitted as one or more consolidated documents if desired, provided it is clear which section of the application form the information / attachments relate to. Where attachments are submitted separately, avoid duplicating information. Ensure that any cross-references between the application form and the supporting document(s) are accurate.**
- **If an application form has been submitted which is incomplete or materially incorrect, the Chief Executive Officer of DWER (CEO) will decline to deal with the application and advise the applicant accordingly.**
- **On completing this application form, please submit it to DWER in line with the instructions in Part 15 of the form.**

1.1	**This is an application for:** *[Select one option only. Your application may be returned if multiple options are selected.]* under Part V, Division 3 of the EP Act. Please see the: • *Guideline: Industry Regulation Guide to Licensing* • *Procedure: Prescribed premises works approvals and licences* for more information to assist in understanding DWER's regulatory regime for prescribed premises.	☒ Works approval ☐ Licence Existing registration number(s): [ ] Existing works approval number(s): [ ] ☐ Renewal Existing licence number: [ ] ☐ Amendment Number of the existing licence or works approval to be amended: [ ] ☐ Registration (works approval already obtained) Existing works approval number(s): [ ]
1.2	**For a works approval amendment or licence amendment, are there less than 90 business days until the expiry of the existing works approval or licence?** Only active instruments can be amended. Applications to amend a works approval or licence must be made 90 business days or more prior to the existing works approval or licence expiring to ensure there is adequate time to assess the amendment.	**Yes** ☐
1.3	**This application is for the following categories of prescribed premises:** *(specify all prescribed premises category numbers)*	12 - Screening, etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated. 61a - Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.

Part 1: Application type		
	☒	All activities that meet the definition of a prescribed premises as set out in Schedule 1 of the EP Regulations have been specified above (tick, if yes).

Completion Matrix
The matrix below explains what sections are required to be completed for different types of applications.

Application form section	New application / registration	Renewal	Amendment
Part 1: Application type	•	•	•
Part 2: Applicant details	•	•	•
Part 3: Premises details	•	•	Δ
Part 4: Proposed activities	•	•	•
Part 5: Index of Biodiversity Surveys for Assessment and Index of Marine Surveys for Assessment	If required.	If required.	If required.
Part 6: Other DWER approvals	•	•	•
Part 7: Other approvals and consultation	•	•	•
Part 8: Applicant history	•	•	Δ
Part 9: Emissions, discharges, and waste	•	•	Δ
Part 10: Siting and location	•	•	Δ
Part 11: Submission of any other relevant information	•	•	If required.
Part 12: Category checklist(s)	•	•	•
Part 13: Proposed fee calculation	•	•	•
Part 14: Commercially sensitive or confidential information	•	•	•
Part 15: Submission of application	•	•	•
Part 16: Declaration and signature	•	•	•
Attachment 1A: Proof of occupier status	•	•	N/A
Attachment 1B: ASIC company extract	•	•	N/A
Attachment 1C: Authorisation to act as a representative of the occupier	•	•	•
Attachment 2: Premises map/s	•	•	Δ
Attachment 3A: Environmental commissioning plan	If required.	N/A	If required
Attachment 3B: Proposed activities	•	•	Δ
Attachment 3C: Map of area proposed to be cleared (only applicable if clearing is proposed)	•	•	•
Attachment 3D: Additional information for clearing assessment	If required.	If required.	If required.
Attachment 4: Marine surveys (only applicable if marine surveys included in application)	•	•	•
Attachment 5: Other approvals and consultation documentation	•	•	Δ
Attachment 6A: Emissions and discharges	If required.	If required.	If required.
Attachment 6B: Waste acceptance	If required.	If required.	If required.
Attachment 7: Siting and location	•	•	Δ
Attachment 8: Additional information submitted	If required.	If required.	If required.
Attachment 9: Category-specific checklist(s)	•	If required.	If required.
Attachment 10: Proposed fee calculation	•	•	•
Attachment 11: Request for exemption from publication	If required.	If required.	If required.

Key:

•	Must be completed / submitted.
Δ	To the extent changed / required in relation to the amendment.
N/A	Not required with application, but may be requested subsequently depending on DWER records.
"If required"	Sections for applicants to determine.

Part 2: Applicant details

INSTRUCTIONS:

- **The applicant (the occupier of the premises) must be an individual(s), a company, body corporate, or public authority, but not a partnership, trust, or joint-venture name. Applications made by or on behalf of business names or unincorporated associations will not be accepted.**
- **If applying as an individual, your full legal name must be provided.**
- **If applying as a company, body corporate, or public authority, the full legal entity name must be inserted.**
- **Australian Company Number's (ACN) must be provided for all companies or body corporates.**
- **DWER prefers to send all correspondence electronically via email. We request that you consent to receiving all correspondence relating to instruments and notices under Part V of the EP Act (Part V documents) electronically via email, by indicating your consent in Section 2.3.**
- **Companies or body corporates making an application must nominate an authorised representative from within their organisation. Proof of authorisation must be submitted with the application (see Section 2.10). If you are applying as an individual, you are the representative.**
- **Details of a contact person must be provided for DWER enquiries in relation to your application. This contact person can be a consultant if authorised to represent the applicant. Written evidence of this authorisation must be provided.**
- **Details of the occupier of the premises must be provided. One of the options must be selected and if you have been asked to specify, please provide details. For example, if 'lease holder' has been selected, please specify the type of lease (for example, pastoral lease, mining lease, or general lease) and provide a copy of the lease document(s). Note that contracts for sale of land will not be sufficient evidence of occupancy status.**

2.1	**Applicant name/s (full legal name/s):** The proposed holder of the works approval, licence or registration.	Pilbara Iron Pty Ltd	
	ACN (if applicable):	107 216 535	
2.2	**Trading as (if applicable):**		
2.3	**Authorised representative details:** The person authorised to receive correspondence and Part V documents on behalf of the applicant under the EP Act. Where 'yes' is selected, all correspondence will be sent to you via email, to the email address provided in this section. Where 'no' has been selected, Part V documents will be posted to you in hard copy to the postal / business address specified in Section 2.4, below. Other general correspondence may still be sent to you via email.	Name	[redacted]
		Position	
		Telephone	
		Email	
		I consent to all written correspondence between myself (the applicant) and DWER, regarding the subject of this application, being exclusively via email, using the email address I have provided above.	Yes ☒ / No ☐
2.4	**Registered office address, as registered with the Australian Securities and Investments Commission (ASIC):** This must be a physical address to which a Part V document may be delivered.	Central Park – Level 18 152-158 St Georges Terrace Perth, WA, 6000	

Part 2: Applicant details			
2.5	**Postal address for all other correspondence:** If different from Section 2.4.	Same as above	
2.6	**Contact person details for DWER enquiries relating to the application (if different from the authorised representative):** For example, could be a consultant or a site-based employee.	Name	
		Position	
		Organisation	
		Address	
		Telephone	
		Email	
2.7	**Occupier status:** Occupier is defined in s.3 of the EP Act and includes a person in occupation or control of the premises, or occupying a different part of the premises whether or not that person is the owner. Note: if a lease holder, the applicant must be the holder of an executed lease, not just an agreement to lease.	Registered proprietor on certificate of title.	☒
		Lease holder (please specify, including date of expiry of lease).	☐
		Public authority that has care, control, or management of the land.	☐
		Other evidence of legal occupation or control (please specify – for example, joint venture operating entity, contract, letter of operational control, or other legal document or evidence of legal occupation).	☐

Attachments			N/A	Yes
2.8	**Attachment 1A: Proof of occupier status**	Copies of certificate of title, lease, or other instruments evidencing proof of occupier status, including the expiry date or confirmation that there is no expiry date, have been provided and labelled as Attachment 1A.	☐	☒
2.9	**Attachment 1B: ASIC company extract**	A current company information extract (not the company information summary) purchased from the ASIC website(s) for all new applications / registrations has been provided and labelled as Attachment 1B.	☐	☒
2.10	**Attachment 1C: Authorisation to act as representative of the occupier**	A copy of the documentation authorising the applicant to act on the occupier's behalf as their authorised agent/representative has been provided and labelled as Attachment 1C.	☐	☒

Part 3: Premises details				
3.1	**Premises description (whole or part to be specified):** Include the land description (volume and folio number, lot, or location number/s); Crown lease or reserve number; pastoral lease number; or mining tenement number (as appropriate), of all properties, as shown on title details registered with Landgate.		Land Administration Act Lease I123390 Miscellaneous Licence L47/225	
	Premises street address Include the suburb.			
	Premises name (if applicable):		Arches North Strategic Laydown	
3.2	**Local Government Authority area:** City, Town, or Shire.		City of Karratha	
3.3	**GPS (latitude and longitude) coordinates:** GPS coordinates determined using the GDA 2020 (Geographic latitude / longitude) coordinate system and datum must be provided for all points around the proposed premises boundary, where the entirety of the cadastre (land parcel) or mining tenements are not used as the premises boundary.		See Attachment 8	
Attachments				**N/A** / **Yes**
3.4	**Attachment 2: Premises map(s)**	You must provide as an attachment to this application form, labelled Attachment 2, either: 1. an aerial photograph, map, and site plan of sufficient scale showing the proposed prescribed premises boundary *or* 2. where available, a map of the proposed premises boundary and site plan as an ESRI shapefile (accepted file types include .dbf, .shp, .prj, and .shx) with the following properties (provided on a suitable portable digital storage device, if submitting application in hard copy form): • Geometry type: Polygon Shape • Coordinate system: GDA 2020 (Geographic latitude / longitude) • Datum: GDA 2020 (Geocentric Datum of Australia 2020). You must also provide a map or maps of the prescribed premises, clearly identifying and labelling: • layout of key infrastructure and buildings, clearly labelled; • the premises boundary (where the premises boundary does not align with the entirety of the cadastral boundary, identify the Lot Number for which the premises is part of); • emission and discharge points (with precise GPS coordinates where available); • monitoring points (with precise GPS coordinates where available); • sensitive receptors and land uses • all areas proposed to be cleared (if applicable). Maps must contain a north arrow, clearly marking the area in which the activities are carried out. The map or maps must be of reasonable clarity and have a visible scale.	☐	☒

Part 4: Proposed activities

INSTRUCTIONS:

- **You must provide a description and the scope, size and scale of all prescribed activities of Schedule 1 to the EP Regulations including the maximum production or design capacity of each prescribed activity.**
- **If applying for a works approval or licence amendment involving the construction of new infrastructure, you must provide information on infrastructure to be constructed and how long construction is expected to take. You must confirm if commissioning is to occur and how long it will take.**
- **If applying for a works approval or licence amendment *not* involving the construction of new infrastructure, provide details of the proposed amendment.**
- **You must identify all emission sources on the premises map/s.**
- **You must also provide information on activities which directly relate to the prescribed premises category which have, or are likely to result in, an emission or discharge.**
- **If clearing activities are proposed provide a description and details. If a relevant exemption under Schedule 6 of the EP Act or r.5 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA) (Clearing Regulations) may apply, provide details.**
- **Note that in some cases, DWER may require that the clearing components of a works approval or licence (or amendment) application be submitted separately through the clearing permit application process. Refer to the *Procedure: Prescribed premises works approvals and licences* for further guidance.**
- **Please note that the requested information is critical to DWER's understanding of the proposed activities. The more accurate, specific, and complete the information provided in the application, the less uncertainty that DWER may identify in the application, therefore facilitating completion of the assessment in a more efficient and timely manner.**

4.1 **Prescribed premises infrastructure and equipment**

In Table 4.1 (below), provide a list of all items of infrastructure and equipment within the boundary of the prescribed premises relevant to this application, and include the following details for each:

- **relevant categories (if known)** – the categories of prescribed premises (as listed under Schedule 1 of the EP Regulations) that relate to that infrastructure or equipment;
- **site plan reference** – the location of that infrastructure or equipment (with reference to the site plan map or maps provided above in Section 3.4 and labelled as Attachment 2 – e.g. use GPS coordinates or a clear description such as *"labelled as [label on premises map] on Map A"*);
- **is it critical containment infrastructure (CCI)?** – indicate if the identified infrastructure or equipment would be categorised as CCI. Refer to the *Guideline: Industry Regulation Guide to Licensing* for further information on CCI; and
- **is environmental commissioning required?** – indicate if environmental commissioning is intended to be undertaken for that item of infrastructure or equipment. Refer to the *Guideline: Industry Regulation Guide to Licensing* for further information on environmental commissioning.

Add additional rows to Table 4.1 (below) as required.

Table 4.1: Infrastructure and equipment

	Infrastructure and equipment	Relevant categories (if known)	Site plan reference	CCI? (mark if yes)	Environmental commissioning? (mark if yes)
1.	Mobile Crushing and Screening Plant	12	Attach 2, 8	☐	☐
2.	Solid waste facility	61a	Attach 2, 8	☐	☐
3.				☐	☐
4.				☐	☐
5.				☐	☐
6.				☐	☐
7.				☐	☐
8.				☐	☐
9.				☐	☐
10.				☐	☐

Part 4: Proposed activities		
4.2	**Detailed description of proposed activities or proposed changes (if an amendment):** You must provide details of proposed activities relevant to this application within the boundary of the prescribed premises, identifying: • scope, size, and scale of the project, including details as to production or design capacity (and/or frequency, if applicable); • key infrastructure and equipment; • description of processes or operations (a process flow chart may be included as an attachment); • emission / discharge points; • locations of waste storage or disposal • activities occurring during construction, environmental commissioning, and operation (if applicable). If assessment and imposition of conditions to allow environmental commissioning to be undertaken are requested, please provide an environmental commissioning plan as Attachment 3A (see 4.11 below). Additional information relating to the proposed activities may be included in Attachment 3B (see 4.12 below).	
	Construction activities (if applicable):	
	The mobile crushing and screening plant will be used to crush and screen of degraded ballast removed from the rail network for reuse/repurposing for other Rail projects, Rio Tinto projects and potentially by third parties. Material will be stockpiled.	
	Environmental commissioning activities (if applicable): Refer to the *Guideline: Industry Regulation Guide to Licensing* for further guidance.	
	The mobile crushing and screening plant will be mobilised, and the dust suppression system optimised to meet the commitments of the Works Approval application. The plant is preconfigured for use so only minor modification is required during setup.	
	Time limited operations activities (if applicable): Different elements of the premises may require time limited operations to commence at different times. In these circumstances, please specify the infrastructure and/or equipment for which time limited operations authorisation is being applied for. If time limited operations are expected to differ from future licensed operations, specify how and why this would be the case. Refer to the *Guideline: Industry Regulation Guide to Licensing* for further guidance.	
	NA	
	Operations activities (for a licence):	
	Crushing and Screening Plant – 200TPH and material stockpiling.	
4.3	**Estimated operating period of the project / premises (e.g. based on estimated infrastructure life):**	At least 10 years
4.4	**Proposed date(s) for commencement of works (if applicable):**	Q3 2025
4.5	**Proposed date(s) for conclusion of works construction (if applicable):** This date should coincide with the submission to DWER of an Environmental Compliance Report(s) and/or a Critical Containment Infrastructure Report(s) as required. Refer to the *Guideline: Industry Regulation Guide to Licensing*.	N/A
4.6	**Proposed date(s) for environmental commissioning of works (if applicable):** Refer to the *Guideline: Industry Regulation Guide to Licensing*.	NA

Part 4: Proposed activities				
4.7	**Proposed date/s for commencement of time limited operations under works approval (if applicable):** Refer to the *Guideline: Industry Regulation Guide to Licensing*.		NA	
4.8	**Maximum production or design capacity for each category applied for (based on infrastructure operating 24 hours a day, 7 days a week):** Provide figures for all categories listed in Section 1.2. Units of measurement must be the same as the units of measurement associated with the relevant category as identified in Schedule 1 of the EP Regulations.		Cat 12 - Crushing and screening plant – 820,000 t per year Cat 61A – Solid waste – 820,000 t	
4.9	**Estimated / actual throughput for each category applied for:** Provide figures for all categories listed in Section 1.2. Units of measurement must be the same as the units of measurement associated with the relevant category as identified in Schedule 1 of the EP Regulations.		As above	
Attachments			**N/A**	**Yes**
4.10	**Attachment 2: Premises map**	Emission/discharge points are clearly labelled on the map/s required for Part 3.4 (Attachment 2).	☐	☒
4.11	**Attachment 3A: Environmental commissioning plan**	If applying to construct works or install equipment, and environmental commissioning of the works or equipment is planned, an environmental commissioning plan has been included in Attachment 3A. The environmental commissioning plan is expected to include, at minimum, identification of: • the sequence of commissioning activities to be undertaken, including details on whether they will be done in stages; • a summary of the timeframes associated with the identified sequence of commissioning activities; • the inputs and outputs that will be used in the commissioning process; • the emissions and/or discharges expected to occur during commissioning; • the emissions and/or discharges that will be monitored and/or confirmed to establish or test a steady-state operation (e.g. identifying emissions surrogates, etc.), including a detailed emissions monitoring program for the measurement of those emissions and/or discharges; • the controls (including management actions) that will be put in place to address the expected emissions and/or discharges; • any contingency plans for if emissions exceedances or unplanned emissions and/or discharges occur • how any of the above would differ from standard operations once commissioning is complete. Note that DWER will not include conditions on a granted instrument that authorise environmental commissioning activities where it is not satisfied that the risks associated with environmental commissioning can be adequately addressed.	☒	☐
4.12	**Attachment 3B: Proposed activities**	Additional information relating to the proposed activities has been included in Attachment 3B (if required).	☒	☐
Clearing activities 4.13 to 4.19 are only required if the application includes clearing of native vegetation.				
4.13	**Proposed clearing area (hectares and/or number of individual trees to be removed):**		12ha	

Part 4: Proposed activities		
4.14	**Details of any relevant exemptions:** Refer to DWER's *A guide to the exemptions and regulations for clearing native vegetation*.	NA
4.15	**Proposed method of clearing:**	Grader
4.16	**Period within which clearing is proposed to be undertaken:** For example, May 2020 – June 2020.	June 2025 – Sep 2025
4.17	**Purpose of clearing:**	
	To clear for stockpiling of material and crush and screen plant and process areas.	

Clearing activities – Attachments			N/A	Yes
4.18	**Attachment 3C: Map of area proposed to be cleared**	You must provide: an aerial photograph or map of sufficient scale showing the proposed clearing area and prescribed premises boundary *OR* if you have the facilities, a suitable portable digital storage device of the area proposed to be cleared as an ESRI shapefile with the following properties: • Geometry type: Polygon Shape • Coordinate system: GDA 2020 (Geographic latitude / longitude) • Datum: 2020 1994 (Geocentric Datum of Australia 2020).	☐	☒
4.19	**Attachment 3D: Additional information for clearing assessment**	Additional information to assist in the assessment of the clearing proposal may be attached to this application (for example, reports on salinity, fauna or flora studies or other environmental reports conducted for the site).	☒	☐

Part 5: Index of Biodiversity and Marine Surveys for Assessments (IBSA and IMSA)				
INSTRUCTIONS: • **Biodiversity surveys should be submitted through the IBSA Submissions Portal at ibsasubmissions.dwer.wa.gov.au** • **Biodiversity surveys submitted to support this application must meet the requirements of the EPA's *Instructions for the preparation of data packages for the Index of Biodiversity Surveys for Assessments (IBSA).*** • **Marine surveys submitted to support this application must meet the requirements of the EPA's Instructions for the preparation of data packages for the Index of Marine Surveys for Assessments (IMSA).** • **If these requirements are not met, DWER will decline to deal with the application.**				
Attachments			N/A	Yes
5.1	**Biodiversity surveys** Please provide the IBSA number(s) (or submission number(s) if IBSA number has not yet been issued) in the space provided. Note that a submission number is not confirmation of acceptance of a biodiversity survey and is not the same as an IBSA number. IBSA numbers are only issued once a survey has been accepted. Once an IBSA number is issued, please notify the department.	All biodiversity surveys submitted with this application meet the requirements of the EPA's *Instructions for the preparation of data packages for the Index of Biodiversity Surveys for Assessments (IBSA)*.	☒	☐
		Submission number(s)		
		IBSA number(s)		

Part 5: Index of Biodiversity and Marine Surveys for Assessments (IBSA and IMSA)				
INSTRUCTIONS: • **Biodiversity surveys should be submitted through the IBSA Submissions Portal at ibsasubmissions.dwer.wa.gov.au** • **Biodiversity surveys submitted to support this application must meet the requirements of the EPA's *Instructions for the preparation of data packages for the Index of Biodiversity Surveys for Assessments (IBSA).*** • **Marine surveys submitted to support this application must meet the requirements of the EPA's Instructions for the preparation of data packages for the Index of Marine Surveys for Assessments (IMSA).** • **If these requirements are not met, DWER will decline to deal with the application.**				
5.2	**Attachment 4:** **Marine surveys**	All marine surveys submitted with this application meet the requirements of the EPA's *Instructions for the preparation of data packages for the Index of Marine Surveys for Assessments (IMSA)*.	☒	☐

Part 6: Other DWER approvals

INSTRUCTIONS:

- **If you have applied, or intend to apply, for other approvals within DWER that may be relevant to this application, you must provide relevant details.**
- **If you have referred, or intend to refer, your proposal to the Environmental Protection Authority (EPA), you must provide the requested details.**

Pre-application scoping

6.1	**Have you had any pre-application / pre-referral / scoping meetings with DWER regarding any planned applications?**	☐ No ☒ Yes – provide details: RTIO/DWER Quarterly Meetings

Environmental impact assessment (Part IV of the EP Act)

6.2	**Have you referred or do you intend to refer the proposal to the EPA?** Section 37B(1) of the EP Act defines a 'significant proposal' as *"a proposal likely, if implemented, to have a significant effect on the environment"*. If DWER considers that the proposal in this application is likely to constitute a 'significant proposal', DWER is required under s.38(5) of the EP Act to refer the proposal to the EPA for assessment under Part IV, if such a referral has not already been made. If a relevant Ministerial Statement already exists, please provide the MS number in the space provided.	☐ Yes (referred) – reference (if known): [ ] ☐ Yes – intend to refer (proposal is a 'significant proposal')☐ Yes – intend to refer (proposal will require a s.45C amendment to the current Ministerial Statement): MS [ ] ☒ No – a valid Ministerial Statement applies: MS 918 ☐ No – not a 'significant proposal'

Clearing of native vegetation (Part V Division 2 of the EP Act and *Country Area Water Supply Act 1947*)

6.3	**Have you applied or do you intend to apply for a native vegetation clearing permit?** In accordance with the *Guideline: Industry Regulation Guide to Licensing* and *Procedure: Native vegetation clearing permits*, where clearing of native vegetation: • is exempt under Schedule 6 of the EP Act or the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA) (refer to *A guide to the exemptions and regulations for clearing native vegetation*) • is being assessed by a relevant authority which would lead to an exemption under Schedule 6 of the EP Act, or • has been referred under s.51DA of the EP Act and a determination made that a clearing permit is not required (refer to the *Guideline: Native vegetation clearing referrals*), the clearing will not be reassessed by DWER or be subject to any additional controls by DWER. If the proposed clearing action is to be assessed in accordance with, or under, an *Environment Protection and Biodiversity Conservation Act* (Cth) (EPBC Act) accredited process, such as the assessment bilateral agreement, the clearing permit application *Form Annex C7 – Assessment bilateral agreement* must be completed and attached to your clearing permit application.	☐ Yes – clearing application reference (if known): CPS [ ] ☐ Yes – a valid EP Act clearing permit already applies: CPS] ☐ No – this application includes clearing (please complete Sections 4.13 to 4.19 above) ☐ No – permit not required (no clearing of native vegetation) ☐ No – permit not required (clearing referral decision): CPS [ ] ☒ No – an exemption applies (explain why): Area is covered under MS 918.

Part 6: Other DWER approvals

6.4	**Have you applied or do you intend to apply for a *Country Area Water Supply Act 1947* licence?** If a clearing exemption applies in a *Country Area Water Supply Act 1947* (CAWS Act) controlled catchment, or if compensation has previously been paid to retain the subject vegetation, a CAWS Act clearing licence is required. If yes, contact the relevant DWER regional office for a Form 1 *Application for licence*. Map of CAWS Act controlled catchments	☐ Yes – application reference (if known): [ ] ☐ No – a valid licence applies: [ ] ☒ No – licence not required
Water licences and permits (*Rights in Water and Irrigation Act 1914*)		
6.5	**Have you applied, or do you intend to apply for:** **1. a licence or amendment to a licence to take water (surface water or groundwater); or** **2. a licence to construct wells (including bores and soaks); or** **3. a permit or amendment to a permit to interfere with the bed and banks of a watercourse?** For further guidance on water licences and permits under the *Rights in Water and Irrigation Act 1914*, refer to the *Procedure: Water licences and permits*.	☐ Yes –application reference (if known): [ ] ☒ No – a valid licence / permit applies: [GWL176810] ☐ No – an exemption applies (explain why): ☐ No – licence / permit not required

Part 7: Other approvals and consultation

INSTRUCTIONS:

- **Please provide copies of all relevant documentation indicated below, including any conditions, exclusions, or expiry dates.**
- **"Major Project" means:**
  - **A State Development Project, where the lead agency is the Department of Jobs, Tourism, Science and Innovation (including projects to which a State Agreement applies); or**
  - **A Level 2 or 3 proposal, as defined in the Department of Premier and Cabinet's *Lead Agency Framework*.**

		N/A	No	Yes
7.1	**Is the proposal a Major Project?**		☒	☐
7.2	**Is the proposal subject to a State Agreement Act?**		☒	☐
	If yes, specify which Act:			
7.3	**Has the proposal been allocated to a "Lead Agency" (as defined in the *Lead Agency Framework*)?**		☒	☐
	If yes, specify Lead Agency contact details:			
7.4	**Has the proposal been referred and/or assessed under the EPBC Act (Commonwealth)?**	☒	☐	☐
	If yes, please specify referral, assessment and/or approval number:			
7.5	**Has the proposal obtained all relevant planning approvals?**	☒	☐	☐
	If planning approval is necessary but has not been obtained, please provide details indicating why:			
	If planning approval is not necessary, please provide details indicating why:			

Part 7: Other approvals and consultation				
7.6	**For renewals or amendment applications, are the relevant planning approvals still valid (that is, not expired)?**	☒	☐	☐
7.7	**Has the proposal obtained all other necessary statutory approvals (not including any other DWER approvals identified in Part 6 of this application)?**	☒	☐	☐
	If no, please provide details of approvals already obtained, outstanding approvals, and expected dates for obtaining these outstanding approvals:			
		N/A	**No**	**Yes**
7.8	**Has consultation been undertaken with parties considered to have a direct interest in the proposal (that is, interested parties or persons who are considered to be directly affected by the proposal)?** DWER will give consideration to submissions from interested parties or persons in accordance with the *Guideline: Industry Regulation Guide to Licensing*.	☐	☐	☒
Attachments			**N/A**	**Yes**
7.9	**Attachment 5: Other approvals and consultation documentation** — Details of other approvals specified in Part 7 of this application, including copies of relevant decisions and any consultation undertaken with direct interest stakeholders have been provided and labelled Attachment 5.		☒	☐

Part 8: Applicant history				
Note: • **DWER will undertake an internal due diligence of the applicant's fitness and competency based on DWER's compliance records and the responses to Part 8 of the form.** • **If you wish to provide additional information for DWER to consider in making this assessment, you may provide that information as a separate attachment (see Part 11).**				
		N/A	**No**	**Yes**
8.1	If the applicant is an individual, has the applicant previously held, or do they currently hold, a licence or works approval under Part V of the EP Act?	☒	☐	☐
8.2	If the applicant is a corporation, has any director of that corporation previously held, or do they currently hold, a licence or works approval under Part V of the EP Act?	☐	☐	☒
8.3	If yes to 8.1 or 8.2 above, specify the name of company and/or licence or works approval number:			
8.4	If the applicant is an individual, has the applicant ever been convicted, or paid a penalty, for an offence under a provision of the EP Act, its subsidiary legislation, or similar environmental protection or health-related legislation in Western Australia or elsewhere in Australia?	☒	☐	☐
8.5	If the applicant is a corporation, has any director of that corporation ever been convicted, or paid a penalty, for an offence under a provision of the EP Act, its subsidiary legislation, or similar environmental protection or health-related legislation in Western Australia or elsewhere in Australia?	☐	☒	☐
8.6	If the applicant is a corporation, has any person concerned in the management of the corporation, as referred to in s.118 of the EP Act, ever been convicted of, or paid a penalty, for an offence under a provision of the EP Act, its subsidiary legislation, or similar environmental protection or health-related legislation in Western Australia or elsewhere in Australia?	☐	☒	☐
8.7	If the applicant is a corporation, has any director of that corporation ever been a director of another corporation that has been convicted, or paid a penalty, for an offence under a provision of the EP Act, its subsidiary legislation, or similar environmental protection or health-related legislation in Western Australia or elsewhere in Australia?	☐	☒	☐

Part 8: Applicant history				
8.8	With regards to the questions posed in 8.4 to 8.7 above, have any legal proceedings been commenced, whether convicted or not, against the applicant for an offence under a provision of the EP Act, its subsidiary legislation, or similar environmental protection or health-related legislation in Western Australia or elsewhere in Australia?	☐	☒	☐
8.9	Has the applicant had a licence or other authority suspended or revoked due to a breach of conditions or an offence under the EP Act or similar environmental protection or health-related legislation in Western Australia or elsewhere in Australia?	☒	☐	☐
8.10	If the applicant is a corporation, has any director of that corporation ever had a licence or other authority suspended or revoked due to a breach of conditions or an offence under the EP Act or similar environmental protection or health-related legislation in Western Australia or elsewhere in Australia?	☐	☒	☐
8.11	If the applicant is a corporation, has any director of that corporation ever been a director of another corporation that has ever had a licence or other authorisation suspended or revoked due to a breach of conditions or an offence under the EP Act or similar environmental protection or health-related legislation in Western Australia or elsewhere in Australia?	☐	☒	☐
8.12	If yes to any of 8.4 to 8.11 above, you must provide details of any charges, convictions, penalties paid for an offence, and/or licences or other authorisations suspended or revoked:			

Part 9: Emissions, discharges, and waste

INSTRUCTIONS:

- **Please see *Guideline: Risk Assessments* and provide all information relating to emission sources, pathways and receptors relevant to the application.**
- **You must provide details on sources of emissions (for example, kiln stack, baghouses or discharge pipelines) including fugitive emissions (for example, noise, dust or odour), types of emissions (physical, chemical, or biological), and volumes, concentrations and durations of emissions.**
- **The potential for emissions should be considered for all stages of the proposal (where relevant), including during construction, commissioning and operation of the premises.**

		No	Yes
9.1	**Are there potential emissions or discharges arising from the proposed activities?**	☐	☒
	If yes, identify all potential emissions and discharges arising from the proposed activities and complete Table 9.1: Emissions and discharges (below).		

Part 9: Emissions, discharges, and waste

☐ Gaseous and particulate emissions (e.g. emissions from stacks, chimneys or baghouses)

☒ Dust (e.g. from equipment, unsealed roads and/or stockpiles, etc.)

☒ Wastewater discharges (e.g. treated sewage, wash water, or process water discharged to lands or waters)

☐ Waste and leachate (e.g. emissions through seepage, leaks and spills of waste from storage, process and handling areas, etc.)

☒ Noise (e.g. from machinery operations and/or vehicle operations)

☐ Odour (e.g. from wastes accepted at putrescible landfills, storage or processing of waste or other odorous materials, etc.)

☐ Contaminated or potentially contaminated stormwater (e.g. stormwater with the potential to come into contact with chemicals or waste materials, etc.)

☐ Electromagnetic radiation[1]

☐ Other (please specify): [ ]

[1] Note that for electromagnetic radiation, copies/details of other relevant approvals (such as from the Department of Mines, Industry Regulation and Safety or the Radiological Council) must be provided where applicable.

Details of any pollution control equipment or waste treatment system, including any control mechanisms used to ensure proper operation of this equipment, must be included in the proposed controls column of the 'Emissions and discharges table' below. Details of management measures employed to control emissions should also be included. Please provide / attach any relevant documents (e.g. management plans, etc.).

Additional rows may be added as required and/or further information may be included as an attachment (see Section 9.3).

Table 9.1: Emissions and discharges

	Source of emission or discharge	Emission or discharge type	Volume and frequency	Proposed controls (include in Attachment 6A if extensive or complex)	Location (on site layout plan – see 3.4)
1.	Mobile Crush and Screen Plant	Noise		Remote operational area	Attach 8
2.	Mobile Crush and Screen Plant	Dust		Mobile Crush and Screen Plant	Attach 8
3.	Mobile Crush and Screen Plant	Wash water		Bunded work area and inbuilt containment sumps	Attach 8
4.	Stockpiling	Surface water runoff		Bunded work area and inbuilt containment sumps	Attach 8
5.	Stockpiling	Sediment runoff		Bunded work area and inbuilt containment sumps	Attach 8
6.	Stockpiling	Dust		Mobile Crush and Screen Plant	Attach 8
7.					
8.					
9.					
10.					
11.					
12.					

9.2	**Waste-related activities at the premises[2]** Answer "yes" or "no" for the following questions and complete Table 9.2 (below).	**No**	**Yes**

Part 9: Emissions, discharges, and waste				
	(a)	Is waste accepted at the premises?	☒	☐
	(b)	Is waste produced on the premises?	☒	☐
	(c)	Is waste processed on the premises?	☒	☐
	(d)	Is waste stored on the premises?	☒	☐
	(e)	Is waste buried on the premises?	☒	☐
	(f)	Is waste recycled on the premises?	☒	☐
	(g)	Is any of the waste listed in Table 9.2 (below) also considered a 'dangerous good' for the purposes of the Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007?[3]	☒	☐
		Specify, if yes:		

[2] Copies / details of any other relevant approvals (e.g. from the Department of Health) must be provided where applicable.

[3] Wastes derived from the storage, handling, and use of dangerous goods may be considered hazardous and may need to be handled with the same precautions. Please refer to the Department of Mines, Industry Regulation and Safety's *Dangerous Goods Safety information sheet* for more information.

Solid waste types must be described with reference to *Landfill Waste Classification and Waste Definitions 1996* (as amended from time to time) and the Environmental Protection (Controlled Waste) Regulations 2004 (Controlled Waste Regulations).

Liquid waste types must be described with reference to the Controlled Waste Regulations.

For further guidance on the definition of waste, refer to *Fact Sheet: Assessing whether material is waste*.

Detail must be provided on storage type (for example, hardstand and containment infrastructure), capacity, likely storage volumes, and containment features (for example, lining and bunding).

Additional rows may be added as required and/or further information may be included as an attachment (see Section 9.4).

Table 9.2 Waste types

	Waste type	Quantity (e.g. tonnes, litres, cubic metres)	Waste activity infrastructure (including specifications)	Monitoring (if applicable)	Location (on site layout plan – see 3.4)
1.					
2.					
3.					
4.					
5.					

Attachments			N/A	Yes
9.3	**Attachment 6A: Emissions and discharges** (if required)	If required, further information for Section 9.1 has been included as an attachment labelled Attachment 6A.	☐	☐
9.4	**Attachment 6B: Waste acceptance** (if required)	If required, further information for Section 9.2 has been included as an attachment labelled Attachment 6B.	☐	☐

Part 10: Siting and location

10.1 Sensitive land uses

What is/are the distance(s) to the nearest sensitive land use(s)?

A sensitive land use is a residence or other land use which may be affected by an emission or discharge associated with the proposed activities.

- Closest residential and recreational zoned premises: Roebourne - Approximately 5km northeast.
- Millstream Chichester National Park - Located 45km south
- Mt Welcome Station Pastoral Lease (DEWITL 00265, Lease ID N049462) - surrounds the proposed prescribed premises boundary to the south and west, with a small portion of the proposed prescribed premises boundary intercepting Mt Welcome Station in the northwest.
- Unnamed watercourse located 0.35km north of Arches and 0.36km south, feeding into the Harding River approximately 5km east.
- Cheeditha Aboriginal Community: Located approximately 5.2km north-northeast.
- Mingullatharndo Aboriginal Community: Located approximately 11.8km east.

10.2 Nearby environmentally sensitive receptors and aspects

Identify in Table 10.2 (below):

- all instances of environmentally sensitive receptors that are known or suspected to be present within, or within close proximity to, the proposed prescribed premises boundary;
- the nature of the sensitive receptors (e.g. type of Threatened Ecological Community, species or threatened flora or fauna, etc.);
- their actual or approximate known distance and direction from the premises boundary (at the closest point/s); and
- if applicable, what measures have been or will be taken to ensure that sensitive receptors are not adversely impacted by any emissions or discharges from the premises.

Refer to the *Guideline: Environmental siting* for further guidance.

Table 10.2: Nearby environmentally sensitive receptors and aspects

Type / classification	Description	Distance + direction to premises boundary	Proposed controls to prevent or mitigate adverse impacts (if applicable)
Environmentally Sensitive Areas [1]	Millstream Chichester National Park	45km south	Refer Attach 8
Threatened Ecological Communities	N/A		Refer Attach 8
Threatened and/or priority fauna	N/A		Refer Attach 8
Threatened and/or priority flora	PEC	Various	Refer Attach 8
Aboriginal and other heritage sites [2]	DPLH registered sites	Various	Refer Attach 8
Public drinking water source areas [3]	Harding Dam Public Drinking Water Source Area Priority 1 (PDWSA)	17.6km south	Refer Attach 8
Rivers, lakes, oceans, and other bodies of surface water, etc.	Unnamed watercourse	0.35km north and 0.36km south	Refer Attach 8

Part 10: Siting and location

Acid sulfate soils	N/A		
Other			

[1] Environmentally Sensitive Areas are as declared under the *Environmental Protection (Environmentally Sensitive) Notice 2005*. Refer to DWER's website ("Environmentally Sensitive Areas") for further information.

[2] Refer to the Department of Planning, Lands and Heritage website for further information about Aboriginal heritage and other heritage sites.

[3] Refer to *Water Quality Protection Note No.25: Land use compatibility tables for public drinking water source areas* for further information.

10.3 Environmental siting context details

Provide further information including details on topography, climate, geology, soil type, hydrology, and hydrogeology at the premises.

Please find further details in the attached supporting documentation, Attach 8.

Attachments			N/A	Yes
10.4	**Attachment 7: Siting and location**	You must provide details and a map describing the siting and location of the premises, including identification of distances to sensitive land uses and/or any specified ecosystems.	☒	☐

Part 11: Submission of any other relevant information

Attachments			No	Yes
11.1	**Attachment 8: Additional information submitted**	Applicants seeking to submit further information may include information labelled Attachment 8. If submitting multiple additional attachments, label them 8A, 8B, etc. Where additional documentation is submitted, please specify the name of documents below.	☐	☒
	List title of additional document(s) attached:			

Part 12: Category checklist(s)

Attachments			N/A	Yes
12.1	**Attachment 9: Category checklist(s)**	DWER has developed category checklists to assist applicants with preparing their application. These checklists are available on DWER's website. The relevant category-specific checklist(s) must be completed and included with the application, labelled as Attachment 9. If attaching multiple category checklists, label them 9A, 9B, etc. Do not select "N/A" unless: • a relevant category checklist is not yet published on DWER's website, or • the application is for an amendment that does not propose changes to the method of operation, or change the inputs, outputs, infrastructure, equipment, emissions, or discharges of / from the premises. Note that that a category checklist(s) may still be required for renewal applications. You will be advised in your renewal notification letter (sent approximately twelve months before the licence expiry date) if you are required to provide the information identified in a category checklist. Where a category checklist is submitted, please specify which checklist(s) in the space below.	☒	☐
	List title(s) of category checklists attached:			

Part 13: Proposed fee calculation

INSTRUCTIONS:

Please calculate the prescribed fee using the relevant online fee calculator linked below.

- **Licence:** www.der.wa.gov.au/LicenceFeeCalculator
- **Works approval:** www.der.wa.gov.au/WorksApprovalFeeCalculator
- **Amendment:** https://www.wa.gov.au/government/publications/works-approval-and-licence-amendment-fee-calculator

Different fee units apply for different fee components. Fee units may also have different amounts depending on the period in which the calculation is made.

Once DWER has confirmed that the application submitted meets the relevant requirements of the EP Act, you will be issued an invoice with instructions for paying your application fee.

Further information on fees can be found in the *Fact Sheet: Industry Regulation fees*, and on DWER's website.

13.1	Only the relevant fee calculations are to be completed as follows: *[mark the box to indicate sections completed]*	☒ Section 13.3 for works approval applications ☐ Section 13.4 for licence / renewal applications ☐ Section 13.5 for registration applications ☐ Section 13.6 for amendment applications ☐ Section 13.7 for applications requiring clearing of native vegetation
13.2	All information and data used for the calculation of proposed fees has been provided in accordance with Section 13.8.	☒

13.3 Proposed works approval fee

Proposed works approval fee (see Schedule 3 of the EP Regulations)

Fees relate to the cost of the works, including all capital costs (inclusive of GST) associated with the construction and establishment of the works proposed under the works approval application. This includes, for example, costs associated with earth works, hard stands, drainage, plant hire, equipment, processing plant, relocation of equipment and labour hire.

Costs exclude:

- the cost of land
- the cost of buildings to be used for purposes unrelated to the purposes in respect of which the premises are, or will become, prescribed premises
- costs for buildings unrelated to the prescribed premises activity or activities
- consultancy fees relating to the works.

Fee component	Proposed fee
[redacted]	

13.4 Proposed licence fee (new licences and licence renewals)

Detailed licence fee calculations

Part 1 Premises component (see r.5D and Part 1 of Schedule 4 of the EP Regulations)

The production or design capacity should be the maximum capacity of the premises. For most categories, the production or design capacity refers to an annual rate. The figure should be based on 24 hour operation for 365 days, unless there is another regulatory approval or technical reason that restricts operation.

The premises component fee applies to the category in Part 1, Schedule 4 incurring the higher or highest amount of fee units in accordance with r.5D(2) of the EP Regulations.

List all categories (insert additional rows as required). Use only the higher or highest amount of fee units to determine the Part 1 fee component.

Category	Production or design capacity	Fee units
Using the higher or highest amount of fee units, Part 1 component subtotal		$

Part 2 Waste (see r.5D(1a)(b) and Part 2 of Schedule 4 of the EP Regulations)

If your premises includes one or more of the following categories specify any applicable Part 2 waste amounts. Do not include Part 3 waste components of these discharges in the below calculations.

Categories: 5, 6, 7, 8, 9, 12, 14, 44, 46, 53, 54A, 70, 80, or 85B

Part 2 waste means waste consisting of –

(a) tailings; or

(b) bitterns; or

(c) water to allow mining of ore; or

(d) flyash; or

(e) waste water from a desalination plant.

If the premises does not fall into one of the categories listed above, or there are no applicable Part 2 waste amounts, the sub total for this section will be $0.

Insert additional rows as required. Sum all Part 2 waste fees to determine the sub total.

Discharge quantity (tonnes/year)	Fee units
Part 2 component subtotal	$

Part 3 Waste – Discharges to air, onto land, into waters (see Part 3 of Schedule 4 of the EP Regulations)

Choose the appropriate location of the discharge and enter the discharge amount(s) in the units specified in the EP Regulations. This should be the amount of waste expected to be discharged over the next 12 months, expressed in the units and averaging period applicable for that waste kind (for example, g/minute or kg/day). Amounts can be measured, calculated, or estimated and can be based on data acquired over the previous 12 months, but should be based on the maximum premises capacity and not the forecast operating hours.

Where there are discharges, all prescribed waste types must be considered in the fee calculation. If a specified waste type is not present in the discharge, this must be justified using an appropriate emission estimation technique (for example, sampling data, industry sector guidance notes, National Pollution Inventory guides and emission factors).

Discharges to air			
Discharges to air	Discharge rate (g/min)	Discharges to air	Discharge rate (g/min)
Carbon monoxide		Nickel	
Oxides of nitrogen		Vanadium	
Sulphur oxides		Zinc	
Particulates (Total PM)		Vinyl chloride	
Volatile organic compounds		Hydrogen sulphide	
Inorganic fluoride		Benzene	
Pesticides		Carbon oxysulphide	
Aluminium		Carbon disulphide	
Arsenic		Acrylates	
Chromium		Beryllium	
Cobalt		Cadmium	
Copper		Mercury	
Lead		TDI (toluene-2, 4-di-iso-cyanate)	
Manganese		MDI (diphenyl-methane di-iso-cyanate)	
Molybdenum		Other waste	
Part 3 component subtotal		$	

Discharges onto land or into waters		**Discharge rate**
1. Liquid waste that can potentially deprive receiving waters of oxygen (for each kilogram discharged per day) —	(a) biochemical oxygen demand (in the absence of chemical oxygen demand limit)	
	(b) chemical oxygen demand (in the absence of total organic carbon limit)	
	(c) total organic carbon	
2. Bio-stimulants (for each kilogram discharged per day) —	(a) phosphorus	
	(b) total nitrogen	
3. Liquid waste that physically alters the characteristics of naturally occurring waters —	(a) total suspended solids (for each kilogram discharged per day)	
	(b) surfactants (for each kilogram discharged per day)	
	(c) colour alteration (for each platinum cobalt unit of colour above the ambient colour of the waters in each megalitre discharged per day)	
	(d) temperature alteration (for each 1°C above the ambient temperature of the waters in each megalitre discharged per day) — (i) in the sea south of the Tropic of Capricorn (ii) in other waters	

4. Waste that can potentially accumulate in the environment or living tissue (for each kilogram discharged per day) —	(a) aluminium	
	(b) arsenic	
	(c) cadmium	
	(d) chromium	
	(e) cobalt	
	(f) copper	
	(g) lead	
	(h) mercury	
	(i) molybdenum	
	(j) nickel	
	(k) vanadium	
	(l) zinc	
	(m)pesticides	
	(n) fish tainting wastes	
	(o) manganese	
5. *E. coli* bacteria as indicator species (in each megalitre discharged per day) —	(a) 1,000 to 5,000 organisms per 100 ml	
	(b) 5,000 to 20,000 organisms per 100 ml	
	(c) more than 20,000 organisms per 100 ml	
6. Other waste (per kilogram discharged per day) —	(a) oil and grease	
	(b) total dissolved solids	
	(c) fluoride	
	(d) iron	
	(e) total residual chlorine	
	(f) other	
Part 3 component subtotal		$
Summary – Proposed licence fee		
Part 1 Component		
Part 2 Component		
Part 3 Component		
Total proposed licence fees:		$

13.5 **Prescribed fee for registration**	
A fee of 24 units applies for an application for registration of premises, unless the occupier of the premises holds a licence in respect of the premises, in accordance with r.5B(2)(c) of the EP Regulations.	☐ (Tick to acknowledge)

13.6 **Amendment fee (works approval or licence)**
The fee prescribed for an application for an amendment to a works approval or licence is calculated in accordance with r.5BB(1)(a) of the EP Regulations: • for a single category of prescribed premises to which the works approval or licence relates, by using the fee unit number corresponding to the prescribed premises category and relevant design capacity threshold in Schedule 4 Part 1 of the EP Regulations. • for multiple categories of prescribed premises to which the works approval or licence relates, by using the highest fee unit number corresponding to the prescribed premises categories and design capacity threshold in Schedule 4 Part 1 of the EP Regulations.

Fee Units	Proposed fee
	$

13.7 **Prescribed fee for clearing permit**	
In accordance with the *Guideline: Industry Regulation Guide to Licensing* and *Procedure: Native vegetation clearing permits*, where approval to clear native vegetation is sought as part of an application for a works approval or licence, DWER may elect to either jointly or separately determine the clearing component of the application. Where DWER separately determines the clearing component of an application, the application will be deemed to be an application for a clearing permit under s.51E of the EP Act and processed accordingly. Note: If a clearing permit application has been separately submitted and accepted by DWER, a refund for the clearing permit application will not be provided where DWER determines to address clearing requirements as part of a related works approval application.	☐ (Tick to acknowledge)

13.8 **Information and data used to calculate proposed fees**	
The detailed calculations of fee components, including all information and data used for the calculations are to be provided as attachments to this application, labelled as **Attachment 10**, with an appropriate suffix (for example 10A, 10B etc.). Please specify the relevant attachment number in the space/s provided below.	
Proposed fee for works approval	Attachment No.
Details for cost of works	
Proposed fee for licence	Attachment No.
Part 1: Premises	
Part 2: Waste types	
Part 3: Discharges to air, onto land, into waters	

Part 14: Commercially sensitive or confidential information

NOTE:
Information submitted as part of this application will be made publicly available. If you wish to submit commercially sensitive or confidential information, please identify the information in Attachment 11, and include a written statement of reasons why you request each item of information be kept confidential.

Information submitted later in the application process may also be made publicly available at DWER's discretion. For any commercially sensitive or confidential information, please follow the same process as described above.

DWER will take reasonable steps to protect genuinely confidential or commercially sensitive information. However, please note that DWER cannot commit to redacting all personal information from all supporting documents. You are advised to ensure that all personal information, including signatures, are removed from supporting documents prior to submitting them to the department. Please note that all submitted information may be the subject of an application for release under the *Freedom of Information Act 1992*.

	Attached	N/A
All information which you would propose to be exempt from public disclosure has been separately placed in a redacted version of the application form and its supporting documentation. Note that this is in addition to the unredacted version(s) provided to DWER for its assessment. Grounds for claiming exemption in accordance with Schedule 1 to the *Freedom of Information Act 1992* must be specified in **Attachment 11** (located at the end of this form).	☐	☒

Part 15: Submission of application	
INSTRUCTIONS: **Check one of the boxes below to nominate how you will submit your application.** **Files larger than 50MB cannot be received via email by DWER. Files larger than 50MB can be sent via File Transfer. Alternatively, email DWER to make other arrangements.**	
A full, signed, electronic copy of the application form including all attachments has been submitted via email to info@dwer.wa.gov.au; **OR**	☒
A signed, electronic copy of the application form has been submitted via email to info@dwer.wa.gov.au and attachments have been submitted via File Transfer, or electronically by other means as arranged with DWER; **OR**	☐
A full, signed hard copy has been sent to: APPLICATION SUBMISSIONS Department of Water and Environmental Regulation Locked Bag 10 Joondalup DC WA 6919	☐

Part 16: Declaration and signature

General

I / We confirm and acknowledge that:

- the information contained in this application is true and correct;
- I / we have legal authority to sign on behalf of the applicant (where authorisation provided);
- I / we have not altered the requirements and instructions set out in this application form;
- I / we have provided a valid email address in Section 2.3 for receipt of correspondence electronically via email from DWER in relation to this application;
- that successful delivery to my / our server constitutes receipt of correspondence sent electronically via email from DWER in relation to this application; and
- I / we have provided a valid postal and/or business address in Section 2.4 for the service of all Part V documents.
- giving or causing to be given information that to my knowledge is false or misleading is an offence under s.112 of the EP Act and may incur a penalty of up to $100,000.

Publication

I / We confirm and acknowledge:

- this application (including all attachments apart from the sections identified in Attachment 11) is a public document and may be published;
- marine surveys provided in accordance with Part 5 will be published and used, for the purposes of the IMSA project, in accordance with your declaration made in the *Metadata and Licensing Statement*;
- all necessary consents for the publication of information have been obtained from third parties;
- information considered exempt from public disclosure has been noted by redaction of a separately provided copy of the completed application form and its supporting documentation (in accordance with Part 14), with reasons as to why the information should be exempt in accordance with the grounds specified in Schedule 1 to the *Freedom of Information Act 1992* (WA) being provided in Attachment 11;
- subsequent information provided in relation to this application will be a public document and may be published unless written notice has been given to DWER by the applicant, at the time the information is provided, claiming that the information is considered exempt from public disclosure; and
- the decision to not publish information will be at the discretion of the CEO of DWER and will be made consistently with the provisions of the *Freedom of Information Act 1992* (WA).

[redacted]

26/05/2025

Date

26/05/2025

Date

NOTE: This form may be signed:

- **if the applicant is an individual, by the individual;**
- **if the applicant is a corporation, by:**
  - **the common seal being affixed in accordance with the *Corporations Act 2001* (Cth); or**
  - **two directors; or**

- **a director and a company secretary; or**
- **if a proprietary company has a sole director who is also the sole company secretary, by that director; and**

- **by a person with legal authority to sign on behalf of the applicant.**

ATTACHMENT 11 – Confidential or commercially sensitive information

Request for exemption from publication			
Information which you consider should not be published, on the grounds of a relevant exemption found in Schedule 1 to the *Freedom of Information Act 1992* (WA), must be specified in this Attachment. Add additional rows as required.			
NOT FOR PUBLICATION IF GROUNDS FOR EXEMPTION ARE DETERMINED TO BE ACCEPTABLE			
Section of this form:		Grounds for claiming exemption:	
Section of this form:		Grounds for claiming exemption:	
Section of this form:		Grounds for claiming exemption:	

_____

Full Name

_____ _____

Signature Date

WESTERN AUSTRALIA

REGISTER NUMBER	
63/DP54397	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	N/A

VOLUME LR3119 FOLIO 871

RECORD OF CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

NO DUPLICATE CREATED

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

[redacted]

LAND DESCRIPTION:

LOT 63 ON DEPOSITED PLAN 54397

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: LEASEHOLD

PRIMARY INTEREST HOLDER: ROBE RIVER MINING CO PTY LTD OF 3RD FLOOR 12-14 ST GEORGES TERRACE PERTH
IN 30/100 SHARE
MITSUI IRON ORE DEVELOPMENT PTY LTD OF 24TH FLOOR FORREST CENTRE 221 ST GEORGES TERRACE PERTH
IN 20/100 SHARE
NORTH MINING LTD OF LEVEL 33/120 COLLINS STREET MELBOURNE VIC
IN 35/100 SHARE
NIPPON STEEL & SUMITOMO METAL AUSTRALIA PTY LTD
NIPPON STEEL & SUMIKIN RESOURCES AUSTRALIA PTY LTD
BOTH OF LEVEL 24/1 YORK STREET SYDNEY NSW
MITSUI IRON ORE DEVELOPMENT PTY LTD OF 9TH FLOOR 12-14 ST GEORGES TERRACE PERTH
AS JOINT TENANTS IN 5/100 SHARE
NIPPON STEEL & SUMITOMO METAL AUSTRALIA PTY LTD
NIPPON STEEL & SUMIKIN RESOURCES AUSTRALIA PTY LTD
BOTH OF LEVEL 24/1 YORK STREET SYDNEY NSW
AS JOINT TENANTS IN 10/100 SHARE
AS TENANTS IN COMMON

(AE N374670) REGISTERED 2/8/2016

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. I123390 LEASE. SUBJECT TO THE TERMS AND CONDITIONS AS SET OUT IN THE LEASE. REGISTERED 31/5/2002.
   E290233 TRANSFER OF LEASE I123390. REGISTERED 6/2/1990.
   E290235 CAVEAT AFFECTING LEASE I123390, CAVEAT BY ROBE RIVER MINING CO PTY LTD, MITSUI IRON ORE DEVELOPMENT PTY LTD, PEKO-WALLSEND OPERATIONS LTD, NIPPON STEEL AUSTRALIA PTY LTD, SUMITOMO METAL AUSTRALIA PTY LTD, ROBE RIVER LTD AS TO 5/100 SHARES OF MITSUI IRON ORE DEVELOPMENT PTY LTD, NIPPON STEEL AUSTRALIA PTY LTD AND SUMITOMO METAL AUSTRALIA PTY LTD AS JOINT

END OF PAGE 1 - CONTINUED OVER

TENANTS ONLY. LODGED 6/2/1990.

E290236 CAVEAT AFFECTING LEASE I123390, CAVEAT BY ROBE RIVER MINING CO PTY LTD, MITSUI IRON ORE DEVELOPMENT PTY LTD, PEKO-WALLSEND OPERATIONS LTD, NIPPON STEEL AUSTRALIA PTY LTD, SUMITOMO METAL AUSTRALIA PTY LTD, ROBE RIVER LTD AS TO 30/100 SHARES OF ROBE RIVER MINING CO PTY LTD ONLY. LODGED 6/2/1990.

E290237 CAVEAT AFFECTING LEASE I123390, CAVEAT BY ROBE RIVER MINING CO PTY LTD, MITSUI IRON ORE DEVELOPMENT PTY LTD, PEKO-WALLSEND OPERATIONS LTD, NIPPON STEEL AUSTRALIA PTY LTD, SUMITOMO METAL AUSTRALIA PTY LTD, ROBE RIVER LTD AS TO 10/100 SHARES OF NIPPON STEEL AUSTRALIA PTY LTD AND SUMITOMO METAL AUSTRALIA PTY LTD AS JOINT TENANTS ONLY. LODGED 6/2/1990.

E290238 CAVEAT AFFECTING LEASE I123390, CAVEAT BY ROBE RIVER MINING CO PTY LTD, MITSUI IRON ORE DEVELOPMENT PTY LTD, PEKO-WALLSEND OPERATIONS LTD, NIPPON STEEL AUSTRALIA PTY LTD, SUMITOMO METAL AUSTRALIA PTY LTD, ROBE RIVER LTD AS TO 20/100 SHARES OF MITSUI IRON ORE DEVELOPMENT PTY LTD ONLY. LODGED 6/2/1990.

E290239 CAVEAT AFFECTING LEASE I123390, CAVEAT BY ROBE RIVER MINING CO PTY LTD, MITSUI IRON ORE DEVELOPMENT PTY LTD, NIPPON STEEL AUSTRALIA PTY LTD, SUMITOMO METAL AUSTRALIA PTY LTD, ROBE RIVER LTD AS TO 35/100 SHARES OF PEKO-WALLSEND OPERATIONS LTD ONLY. LODGED 6/2/1990.

E702246 EXTENSION OF LEASE I123390. REGISTERED 16/9/1991.

L061763 CHANGE OF NAME AFFECTING LEASE I123390. REGISTERED 2/9/2009.

L061765 LEASE OF CROWN LAND AND AMALGAMATION ORDER. LAND INCLUDED INTO THE LEASEHOLD ESTATE. REGISTERED 2/9/2009.

M012210 EXTENSION OF LEASE I123390. REGISTERED 7/8/2012.

M059988 LEASE OF CROWN LAND AMALGAMATION ORDER. LAND INCLUDED INTO THE LEASEHOLD ESTATE. REGISTERED 27/9/2012.

M552773 LEASE OF CROWN LAND AND AMALGAMATION ORDER. LAND INCLUDED INTO THE LEASEHOLD ESTATE. REGISTERED 17/2/2014.

N374669 CHANGE OF NAME AFFECTING LEASE I123390. REGISTERED 2/8/2016.

N374670 CHANGE OF NAME AFFECTING LEASE I123390. REGISTERED 2/8/2016.

N374671 LEASE OF CROWN LAND AND AMALGAMATION ORDER. LAND INCLUDED INTO THE LEASEHOLD ESTATE. REGISTERED 2/8/2016.

2. F226084 EASEMENT TO THE STATE ENERGY COMMISSION OF WESTERN AUSTRALIA FOR ELECTRICITY PURPOSES. SEE INSTRUMENT F226084 AND DEPOSITED PLAN 95056. REGISTERED 23/6/1993.

3. G225391 EASEMENT TO PILBARA ENERGY PTY LTD AND BHP MINERALS PTY LTD FOR PIPELINE PURPOSES. SEE INSTRUMENT G225391 AND DEPOSITED PLAN 218558. RECORDED PURSUANT TO SECTION 19(4) OF THE PETROLEUM PIPELINES ACT 1969 AS AMENDED BY THE PILBARA ENERGY PROJECT AGREEMENT ACT 1994. REGISTERED 10/7/1996.

G893569 NOTIFICATION. THE GRANTEES OF EASEMENT G225391 ARE NOW EPIC ENERGY (PILBARA PIPELINE) PTY LTD. PURSUANT TO S20(5) OF THE PETROLEUM PIPELINES ACT 1969. RECORDED 3/9/1998.

4. N073937 EASEMENT BURDEN FOR PIPELINE PURPOSES. SEE DEPOSITED PLAN 76675. FOR THE BENEFIT OF ADJOINING LEASE M638683 ONLY. REGISTERED 27/7/2015.

5. N374667 PORTION COMPRISED IN LOT 755 ON DP76659 TO VOL 3166 FOL 478. REGISTERED 2/8/2016.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents of for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	DP54397
PREVIOUS TITLE:	LR3062-526
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	SHIRE OF ASHBURTON, CITY OF KARRATHA

END OF PAGE 2 - CONTINUED OVER

REGISTER NUMBER: 63/DP54397 VOLUME/FOLIO: LR3119-871 PAGE 3

RESPONSIBLE AGENCY: DEPARTMENT OF LANDS (SLSD)

NOTE 1:	K026751	SUBJECT TO SURVEY - NOT FOR ALIENATION PURPOSES
NOTE 2:	L004064	DEPOSITED PLAN (INTEREST ONLY) 62676 LODGED.
NOTE 3:	M012210	CORRESPONDENCE FILE 03376-1970-03RO

Form 11
Instrument of Licence

WESTERN AUSTRALIA
Mining Act 1987
(Sec. 116 Reg. 42)

MISCELLANEOUS LICENCE

No. 47/225

(a)	Name and address of holder and number of shares	(a)	ROBE RIVER MINING CO. PTY LTD C/- RIO TINTO IRON ORE LAND ASSETS DEPARTMENT GPO BOX A42 PERTH WA 6837	60
			NORTH MINING LTD C/- RIO TINTO IRON ORE LAND ASSETS DEPARTMENT GPO BOX A42 PERTH WA 6837	70
			CAPE LAMBERT IRON ASSOCIATES (REGISTERED BUSINESS NAME) C/- RIO TINTO IRON ORE LAND ASSETS DEPARTMENT GPO BOX A42 PERTH WA 6837	10
			PANNAWONICA IRON ASSOCIATES (REGISTERED BUSINESS NAME) C/- LAND ASSETS DEPARTMENT RIO TINTO IRON ORE GPO BOX A42 PERTH WA 6837	20
			MITSUI IRON ORE DEVELOPMENT PTY LTD GPO BOX 2585 PERTH WA 6001	40
			TOTAL SHARES:	200

is/are subject to the provisions of the **Mining Act, 1978** and to the conditions stated in the Schedule hereunder, authorized in accordance with Section 94 of the Act to:-

(b)	Purpose of Licence	(b)	To conduct all necessary activities for the design, planning, construction, operation and maintenance of a railway and all associated infrastructure in connection with mining operations pursuant to the provisions of the Iron Ore (Robe River) Agreement Act 1964.	
		situated at		
(c)	Locality	(c)	20 KM SOUTH OF CAPE LAMBERT	in the
(d)	Mineral Field	(d)	WEST PILBARA	Mineral Field
		containing approximately		
(e)	Area	(e)	698.36000 Hectares	
		for a term of 21 Years commencing on the date of grant of this licence		
(f)	Date Licence granted	(f)	19 JUNE 201	
(g)	Shire	(g)	ROEBOURNE	
(h)	Plan	(h)	TENGRAPH	

.....
Regi

F11_0002

[redacted]

NOTE

In addition to any specific conditions that are endorsed on this instrument, the holder in exercising the rights granted herein must first ensure that the necessary consents and permission have been obtained and compensation has been agreed to or determined in respect to certain Crown Land, Public Reserves, etc., private land and where the lawful rights of other land users is concerned.

For Schedule of Endorsements/Conditions see attached.

MISCELLANEOUS LICENCE 47/225

SCHEDULE OF ENDORSEMENTS/CONDITIONS

ENDORSEMENTS

		Start Date	End Date
1	The Licensee's attention is drawn to the provisions of the Aboriginal Heritage Act 1972 and any Regulations thereunder.	19/06/2012	
2	The Licensee's attention is drawn to the Environmental Protection Act 1986 and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004, which provides for the protection of all native vegetation from damage unless prior permission is obtained.	19/06/2012	
3	The terms and conditions contained in Statement No. 880 issued by the Minister for the Environment on 17 November, 2011 and entitled "Statement that a Proposal may be implemented" (pursuant to the provisions of the Environmental Protection Act 1986) - Cape Lambert to Emu Siding Rail Duplication.	19/06/2012	
4	Other than General Leases I123390 and I123393 the grant of this Licence does not include any private land referred to in Section 29(2) of the Mining Act 1978 except that below 30 metres from the natural surface of the land.	19/06/2012	
5	The grant of this Licence does not include land the subject of Exploration Licences 47/1248 and 47/1462, Mining Lease 47/223 and Application for Mining Lease 47/1436.	19/06/2012	
	In respect to Water Resource Management Areas (WRMA) the following endorsements apply:	19/06/2012	
6	The Licensee attention is drawn to the provisions of the: • Waterways Conservation Act, 1976 • Rights in Water and Irrigation Act, 1914 • Metropolitan Water Supply, Sewerage and Drainage Act, 1909 • Country Areas Water Supply Act, 1947 • Water Agencies (Powers) Act 1984 • Water Resources Legislation Amendment Act 2007	19/06/2012	
7	The rights of ingress to and egress from the mining tenement being at all reasonable times preserved to officers of Department of Water (DoW) for inspection and investigation purposes.	19/06/2012	
8	The storage and disposal of petroleum hydrocarbons, chemicals and potentially hazardous substances being in accordance with the current published version of the DoWs relevant Water Quality Protection Notes and Guidelines for mining and mineral processing.	19/06/2012	
	In respect to Artesian (confined) Aquifers and Wells the following endorsement applies:	19/06/2012	
9	The abstraction of groundwater from an artesian well and the construction, enlargement, deepening or altering of any artesian well is prohibited unless a current licence for these activities has been issued by the DoW.	19/06/2012	
	In respect to Waterways the following endorsement applies:	19/06/2012	
10	Advice shall be sought from the DoW if proposing any activity in respect to licence purpose in respect to licence purpose within a defined waterway and within a lateral distance of: • 50 metres from the outer-most water dependent vegetation of any perennial waterway, and • 30 metres from the outer-most water dependent vegetation of any seasonal waterway.	19/06/2012	
	In respect to Proclaimed Surface Water Areas (Pilbara shown in Tengraph as SWA 30) the following endorsements apply:	19/06/2012	
11	The abstraction of surface water from any watercourse is prohibited unless a current licence to take surface water has been issued by the DoW.	19/06/2012	
12	All activities to be undertaken with minimal disturbance to riparian vegetation.	19/06/2012	
13	No activity in respect to licence purpose being carried out that may disrupt the natural flow of any waterway unless in accordance with a current licence to take surface water or permit to obstruct or interfere with beds or banks issued by the DoW.	19/06/2012	
14	Advice shall be sought from the DoW and the relevant service provider if proposing activity in respect to licence purpose being carried out in an existing or designated future irrigation area, or within 50 metres of an irrigation channel, drain or waterway.	19/06/2012	
	In respect to Proclaimed Ground Water Areas (Pilbara shown in Tengraph as GWA 32) the following endorsement applies:	19/06/2012	
15	The abstraction of groundwater is prohibited unless a current licence to construct/alter a well and a licence to take groundwater has been issued by the DoW.	19/06/2012	

CONDITIONS

		Start Date	End Date
1	The licence is granted in accordance with the provisions of Clause 8(1)(b)(i) of the Iron Ore (Robe River) Agreement Act 1964 and construction and operation of infrastructure and other facilities on this licence proceeding in accordance with proposals approved pursuant to this Agreement.	19/06/2012	
2	Where surface disturbance activities are proposed on the licence which are not associated with development or construction proposals, the prior written approval of the Environmental Officer, DMP must be obtained before the use of drilling rigs, scrapers, graders, bulldozers, backhoes or other	19/06/2012	

MISCELLANEOUS LICENCE 47/225

SCHEDULE OF ENDORSEMENTS/CONDITIONS

		Start Date	End Date
	mechanised equipment for the proposed surface disturbance activities. Following approval, all topsoil being removed ahead of operations and separately stockpiled for replacement after backfilling and/or completion of operations.		
3	The Licensee submitting a plan of proposed operations and measures to safeguard the environment to the Executive Director, Environment Division, DMP for assessment and written approval prior to commencing any development or construction.	19/06/2012	
4	The Licensee notifying the holder of any underlying pastoral or grazing lease by telephone or in person, or by registered post if contact cannot be made, prior to undertaking airborne geophysical surveys or any ground disturbing activities utilising equipment such as scrapers, graders, bulldozers, backhoes, drilling rigs; water carting equipment or other mechanised equipment.	19/06/2012	
5	The Licensee or transferee, as the case may be, shall within thirty (30) days of receiving written notification of:- • the grant of the Licence; or • registration of a transfer introducing a new Licensee; advise, by registered post, the holder of any underlying pastoral or grazing lease details of the grant or transfer.	19/06/2012	
6	The rights of ingress to and egress from Miscellaneous Licence 47/105 being at all times preserved to the licensee and no interference with the purpose or installations connected to the licence.	19/06/2012	
7	The rights of ingress to and egress from Exploration Licence 47/1745 will at all times be preserved to the holder of Exploration Licence 47/1745 and will not interfere with the purposes of installations connected with Exploration Licence 47/1745.	19/06/2012	
8	No interference with the transmission line or the installations in connection therewith without the prior written approval of the owners, and the rights of ingress to and egress from the facility being at all times preserved to the owners thereof.	19/06/2012	
9	No mining on a strip of land 60 metres wide with the Pannawonica Railway Line as the centreline and no materials being deposited or machinery or buildings being erected on such strip of land, without the prior written consent of the owners.	19/06/2012	
10	Blasting operations being controlled so that no damage or injury can be caused by fly rock, concussion, vibration or other means.	19/06/2012	
11	No mining within 25 metres of either side of the Gas/Petroleum pipeline contained within Petroleum Pipeline Licence No. 22 as shown in TENGRAPH, without the prior written consent of the owners thereof.	19/06/2012	
12	No surface excavation approaching closer to the boundary of the Safety Zone established by condition 11 hereof than a distance equal to three times the depth of the excavation without the prior written approval of the Director Petroleum DMP	19/06/2012	
13	No interference with the drainage pattern, and no parking, storage or movement of equipment or vehicles used in the course of mining within the Safety Zone established by Condition 11 hereof without the prior approval of the operators of the Gas/Petroleum pipeline.	19/06/2012	
14	The Licensee shall not excavate, drill, install, erect, deposit or permit to be excavated, drilled, installed, erected or deposited within the Safety Zone established in Condition 11 hereof, any pit, well, pavement, foundation, building, or other structure or installation, or material of any nature whatsoever without the prior written consent of the Director Petroleum DMP	19/06/2012	
15	No explosives being used or stored within one hundred and fifty (150) metres of the Gas/Petroleum pipeline without the prior written consent of the Director Petroleum DMP.	19/06/2012	
16	Mining on the Safety Zone established in Condition 11 hereof being confined to below a depth of 50 metres from the natural surface unless otherwise approved by the Director Petroleum DMP .	19/06/2012	
17	The rights of ingress to and egress from the pipeline easement established in Condition 11 hereof being at all times preserved for employees, contractors and agents of the operators of the Gas/Petroleum pipeline.	19/06/2012	
18	Such further conditions as may from time to time be imposed by the Minister responsible for the Mining Act 1978 for the purpose of protecting the Gas/Petroleum pipeline.	19/06/2012	

ASIC
Australian Securities & Investments Commission

Current Company Extract

Name: PILBARA IRON PTY LTD
ACN: 107 216 535

Date/Time: 27 March 2025 AEST 04:23:08 PM

This extract contains information derived from the Australian Securities and Investments Commission's (ASIC) database under section 1274A of the Corporations Act 2001.

Please advise ASIC of any error or omission which you may identify.

EXTRACT

Organisation Details		Document Number
Current Organisation Details		
Name:	PILBARA IRON PTY LTD	019703948
ACN:	107 216 535	
ABN:	75107216535	
Registered in:	Western Australia	
Registration date:	28/11/2003	
Next review date:	30/09/2025	
Name start date:	23/12/2003	
Status:	Registered	
Company type:	Australian Proprietary Company	
Class:	Limited By Shares	
Subclass:	Proprietary Company	

Address Details		Document Number
Current		
Registered address:	'Central Park' Level 18, 152-158 St Georges Terrace, PERTH WA 6000	7E9777340
Start date:	29/12/2017	
Principal Place Of Business address:	Level 22 Central Park, 152-158 St Georges Terrace, PERTH WA 6000	018811563
Start date:	28/11/2003	

Contact Address	
Section 146A of the Corporations Act 2001 states 'A contact address is the address to which communications and notices are sent from ASIC to the company'.	
Current	
Address:	GPO BOX 384D, MELBOURNE VIC 3001
Start date:	15/09/2008

Officeholders and Other Roles		Document Number
Director		
Name:	[redacted]	0EEO30994
Address:		
Born:		
Appointment date:		
Name:		2EAP18037
Address:		
Born:		
Appointment date:		
Name:		7EBF46281
Address:		
Born:		
Appointment date:		
Name:		7EBW30257

Address:	[redacted]	
Born:		
Appointment date:		
Name:		7ECM63726
Address:		
Born:		
Appointment date:		

Secretary

Name:		7ECX41078
Address:		
Born:		
Appointment date:		

Appointed Auditor

Name:	KPMG	7EBH75862
Address:	Level 8 235 St Georges Terrace PERTH WA 6000	
Start date:	01/08/2020	

Ultimate Holding Company

Name:	RIO TINTO LIMITED	7E2066062
ACN:	004 458 404	
ABN:	96004458404	

Share Information

Share Structure

Class	Description	Number issued	Total amount paid	Total amount unpaid	Document number
ORD	ORDINARY SHARES	764	764.00	0.00	020811734
ORD1	ORDINARY SHARES	1	1.00	0.00	018811563
REDP	REDEEMABLE PREFERENCE SHARES	235	235.00	0.00	020811734

Members

Note: For each class of shares issued by a proprietary company, ASIC records the details of the top twenty members of the class (based on shareholdings). The details of any other members holding the same number of shares as the twentieth ranked member will also be recorded by ASIC on the database. Where available, historical records show that a member has ceased to be ranked amongst the top twenty members. This may, but does not necessarily mean, that they have ceased to be a member of the company.

Name: HAMERSLEY HOLDINGS LIMITED
ACN: 008 446 222
Address: 'Central Park' Level 18, 152-158 St Georges Terrace, PERTH WA 6000

Class	Number held	Beneficially held	Paid	Document number
ORD	764	yes	FULLY	7E9777981

Name: HAMERSLEY HOLDINGS LIMITED
ACN: 008 446 222
Address: 'Central Park' Level 18, 152-158 St Georges Terrace, PERTH WA 6000

Class	Number held	Beneficially held	Paid	Document number
ORD1	1	yes	FULLY	7E9777981

Name: MNS IRON PTY LTD
ACN: 111 522 920
Address: Level 26 Exchange Plaza, 2 The Esplanade, PERTH WA 6000

Class	Number held	Beneficially held	Paid	Document number
REDP	235	yes	FULLY	020811734

Financial Reports

Balance date	Report due date	AGM due date	Extended AGM due	AGM held date	Outstanding	Document number
31/12/2004	30/04/2005			15/04/2005	no	017310340
31/12/2005	31/05/2006			07/07/2006	no	023134202
31/12/2006	31/05/2007				no	023791610
31/12/2007	30/04/2008				no	024705751
31/12/2008	30/04/2009				no	024600768
31/12/2009	30/04/2010				no	7E3153163
31/12/2010	30/04/2011				no	7E3691840
31/12/2011	30/04/2012				no	028148921
31/12/2012	30/04/2013				no	028535060
31/12/2013	30/04/2014				no	028977244
31/12/2014	30/04/2015				no	7E6913208
31/12/2015	30/04/2016				no	7E7916232
31/12/2016	30/04/2017				no	7E9006522
31/12/2017	30/04/2018				no	8E0130821
31/12/2018	30/04/2019				no	7EAK83594
31/12/2019	30/04/2020				no	7EAW05239
31/12/2020	30/04/2021				no	7EBH75862
31/12/2021	30/04/2022				no	7EBS31779

31/12/2022	30/04/2023				no	7ECD36687
31/12/2023	30/04/2024				no	7ECR68499

Documents

Note: Where no Date Processed is shown, the document in question has not been processed. In these instances care should be taken in using information that may be updated by the document when it is processed. Where the Date Processed is shown but there is a zero under No Pages, the document has been processed but a copy is not yet available.

Date received	Form type	Date processed	Number of pages	Effective date	Document number
11/04/2022	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	11/04/2022	2	11/04/2022	7EBR45534
12/05/2022	388H (FR 2021) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	12/05/2022	39	31/12/2021	7EBS31779
12/09/2022	484A1 Change To Company Details Change Officeholder Name Or Address	12/09/2022	2	12/09/2022	7EBW30257
29/11/2022	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	29/11/2022	2	29/11/2022	7EBY97296
19/01/2023	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	19/01/2023	2	19/01/2023	7ECA38146
28/04/2023	388H (FR 2022) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	28/04/2023	41	31/12/2022	7ECD36687
07/08/2023	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	07/08/2023	2	07/08/2023	7ECG79631
30/08/2023	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	30/08/2023	2	30/08/2023	7ECH84746
14/12/2023	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	21/12/2023	2	14/12/2023	7ECM63726
19/12/2023	492 Request For Correction	UNPROCESSED	2	19/12/2023	7ECM87428

15/01/2024	484A1 Change To Company Details Change Officeholder Name Or Address	15/01/2024	2	15/01/2024	7ECN43581
30/04/2024	388H (FR 2023) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	30/04/2024	43	31/12/2023	7ECR68499
26/08/2024	484A1 Change To Company Details Change Officeholder Name Or Address	26/08/2024	2	26/08/2024	7ECX41078
10/10/2024	388C Financial Report Financial Report - Supplementary - Company	16/10/2024	41	10/10/2024	7ECZ69754
13/10/2024	388C Financial Report Financial Report - Supplementary - Company	16/10/2024	41	13/10/2024	7ECZ76944
20/01/2025	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	20/01/2025	2	20/01/2025	7EDF11499

*****End of Extract of 5 Pages*****

RioTinto

Level 18, Central Park
152-158 St Georges Terrace
PERTH WA 6000

Tel: +61 (0) 8 6279 6469

Private and confidential

The Manager, Resource Industries
Department of Water and Environmental Regulation
Locked Bag 10
Joondalup DC WA 6919

29 January 2024

Our reference: RTIO-HSE-0343145

To the Manager

Agents Authority: Applications for approvals administered by the Department of Water and Environmental Regulation

As a Director of Pilbara Iron Pty Ltd, Pilbara Iron Company (Services) Pty Ltd, Hamersley Iron Pty. Limited, Hamersley HMS Pty Ltd, Hamersley Iron – Yandi Pty Limited, Hamersley Resources Limited and Hamersley WA Pty Limited, I hereby provide authorisation for the persons listed below to allow them to:

- Apply for Licences and Works Approvals (including the provision of associated documentation) administered by the Department of Water and Environmental Regulation (**DWER**) under the *Environmental Protection Act 1986* (WA) on behalf of any of the above listed companies; and
- Apply for any other environmental approvals from the DWER on behalf of any of the above listed companies.

Persons to which this authorisation applies:

- [redacted]

RioTinto

- [redacted]

If you have any questions in relation to this authorisation, please contact [redacted] in the first instance.

[redacted]

500,500mE
510,000mE
510,500mE
511,000mE
7,700,500mN
7,700,000mN
7,699,500mN

I123300
I123393
I123390
24 Km
25 Km
L47/00225
Cherratta Road

Legend

- Prescribed Premises Boundary

Rail Network

- Chainage Point
- Railway

Roads and Tracks

- Minor Road
- Rail Access Road
- Track

Drainage

- Minor Creekline

Mining Act Tenure

- Rio Tinto Live Mining Act Tenure

Land Act Tenure

- Rio Tinto Live Land Act Tenure

Drawn: M.Ludovico
Plan: RTIO-1009582v2
Date: March 2025

Checked by:
Proj: GDA 1994 MGA Zone 50
GIS.Team@riotinto.com

RioTinto

Attachment 2: Prescribed Premise Boundary

0 50 100 150 200
metres
Scale: 1:6,000 @A3

N

Amendment application fee calculator (effective as of 1 July 2022)

Instrument No.	
Unit value ($)	[redacted]

Categories	Units
12 - Screening, etc. of material: More than 500 000 but not more than 5 000 000 tonnes per year	
61A - Solid waste facility: More than 100 000 tonnes per year	

Note: Amendment fee is determined by the category with the largest fee units

Fee Payable [redacted]

RioTinto

Rio Tinto Iron Ore
Central Park,
152-162 St Georges Terrace
Perth, 6000,
Australia

Attachment 8

Works Approval Supporting Documentation

RTIO Railway Arches North Laydown

Railway Land Administration Act Lease I123390 and Miscellaneous Licence L47/225

May 2025

RTIO-1100130

Contents

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1 Licensee Information

1.1 Occupier Details

The occupier (the Licensee) of the land subject to this Works Approval application is:

Pilbara Iron Pty Ltd
Level 18, Central Park 152-158 St Georges Tce
Perth WA 6000
ACN: 107 216 535

The proposed works are being undertaken in the City of Karratha.

The contact person for the Works Approval application is as follows:

[redacted]
Specialist, Government Approvals East
Rio Tinto Iron Ore
Level 12, Central Park
152-158 St Georges Terrace
Perth WA 6000

Telephone: M: +61 459 346 729
Email: carmen.lebreton@riotinto.com

2 Premise Details

2.1 Prescribed Activity Overview

Pilbara Iron Pty Ltd ("PI") and the participants in the Robe River Joint Venture ("Robe River JV") separately own various sections of the Rio Tinto Group integrated railway network ("Integrated Rail Network" or "IRN"). The IRN comprises approximately 1,980 kilometres (km) of heavy freight railway network for the transportation of iron ore from Rio Tinto's 17 mining operations in both the East and West Pilbara Regions of Western Australia (WA) to either the Cape Lambert, Parker Point or East Intercourse Island port facilities for export. The first rail lines were operational in 1965 and have since developed to support the current operations. Pilbara Iron Pty Ltd, also a member of the Rio Tinto Group, has been appointed to operate, maintain and manage construction works associated with the IRN.

The IRN is primarily operated and maintained by Railway Division within the Iron Ore group, which comprises three main areas. These are the Rail Operations, Rail Maintenance, and Rail Engineering.

The IRN currently incorporates eight mainlines, of which, one is the Deepdale Mainline (DDML) running for approximately 236km from Robe Valley mine site to Cape Lambert Port Operations.

This Works Approval application is for the commissioning and operation of a mobile crushing and screening plant and stockpiling of offsite material, of which, has been removed from the IRN for ongoing rail maintenance purposes.

The area referred to as Arches North Strategic Laydown (Arches North) is located at about the 24-kilometre (km) mark on Rio Tinto Iron Ore's (RTIO) Deepdale Mainline (DDML) (Refer Figure 1).

Concrete sleepers may be temporarily stockpiled in this location during sleeper replacement programmes but will not be crushed or screened at Arches North.

The crushing and screening activities are required to support the repurposing and reuse of removed degraded rail civil material during ballast cleaning works and major rail renewal programmes across the Rio Tinto Iron Ore rail network.

2.2 Legal Land Description

The mobile crushing and screening plant and stockpiling activities will be located within the City of Karratha local government district and within Railway Land Administration Act Lease I123390 and Miscellaneous Licence L47/225 (Refer Table 1).

Pilbara Iron Pty Ltd (a subsidiary of Rio Tinto) provides the operation, maintenance and management of construction works associated with the port, rail and power assets of Hamersley Iron. Pilbara Iron Pty Ltd is therefore the occupier for any Licences or Permits required under Part V of the *Environmental Protection Act 1986* (Western Australia (WA)) (EP Act) associated with this Works Approval.

Table 1: Tenure Details

Tenement	Holder Details	Grant Date	Expiry Date
Railway Land Administration Act Lease I123390	Hamersley Iron Pty Limited (Iron Ore (Hamersley Range) Agreement Act 1963)	01/11/1970	31/10/2033
Miscellaneous Licence L47/225		19/06/2012	18/06/2033

2.3 Location and Setting

The proposed mobile crushing and screening plant and stockpiling of degraded rail civil material will be located on the DDML, within the proposed Prescribed Premises boundary (Refer Figure 2) at Arches North.

Arches North is located approximately 24km south of the RTIO Cape Lambert Port on the DDML, between RTIOs Robe Valley mine site and Cape Lambert Port Operations, within the Pilbara region of northern Western Australia (Refer Figure 1). The Northwest Coastal Highway is located approximately 4km north of Arches North, and the township of Roebourne, approximately 5km northeast at its closest point (Refer Figure 3)

Access to the proposed Prescribed Premises is via RTIO Railway Land Administration Act Lease I123390 and Miscellaneous Licence L47/225. Arches North sits primarily adjacent to Mt Welcome Station, an Indigenous owned pastoral lease, except for a very small intercept on the southern boundary. With respects to this small interception, Mt Welcome is the underlying tenure and consultation has been undertaken.

The proposed mobile crushing and screening plant and stockpiling of degraded rail civil material will be utilised over the next 10 years as Rails 5Y and 10Y network maintenance renewal plans are executed. The proposed Prescribed Premises measures approximately 16.3ha and includes a long access track into the facility. The proposed Prescribed Premises boundary includes the rail formation, as side-casting from the eastern railway line may prove advantages for degraded ballast offloading in some instances.

The proposed Prescribed Premises occurs within the Pilbara Bioregion (Chichester sub-region) as classified by the Interim Biogeographic Regionalisation for Australia (IBRA). The Chichester subregion is comprised of Archaean granite and basalt plains.

The Department of Agriculture produced mapping of the State, which broadly classifies land systems (van Vreeswyk, 2004) where the units broadly describe regions by their physiographic classification. The proposed Prescribed Premises boundary occurs across two land systems:

- Horseflat Land System: Gilgaied clay plains supporting tussock grasslands and minor grassy snakewood shrublands. This land system is represented by red/brown non-cracking clay and self-mulching cracking clay. This land system makes up 15.5ha (95.4%) of the proposed Prescribed Premises boundary.
- Ruth Land System: Hills and ridges of volcanic and other rocks supporting hard spinifex (occasionally soft spinifex) grasslands. This land system is associated with stony soils. This land system makes up 0.8ha (4.6%) of the proposed Prescribed Premise boundary.

Two vegetation types are mapped over the proposed Prescribed Premises, as well as cleared areas where the rail access road intersects the proposed Prescribed Premise (GHD, 2023b):

- Cw: *Corymbia* woodland represented 11.8ha (72.42%) of the proposed Prescribed Premises.
- Etg: *Eragrostis* tussock grassland represented 3.6ha (21.7%) of the proposed Prescribed Premises.
- Cleared: areas devoid of native vegetation represented 0.96ha (5.9%) of the proposed Prescribed Premises.

Figure 1: Regional Location Map

Figure 2: Area Location Context

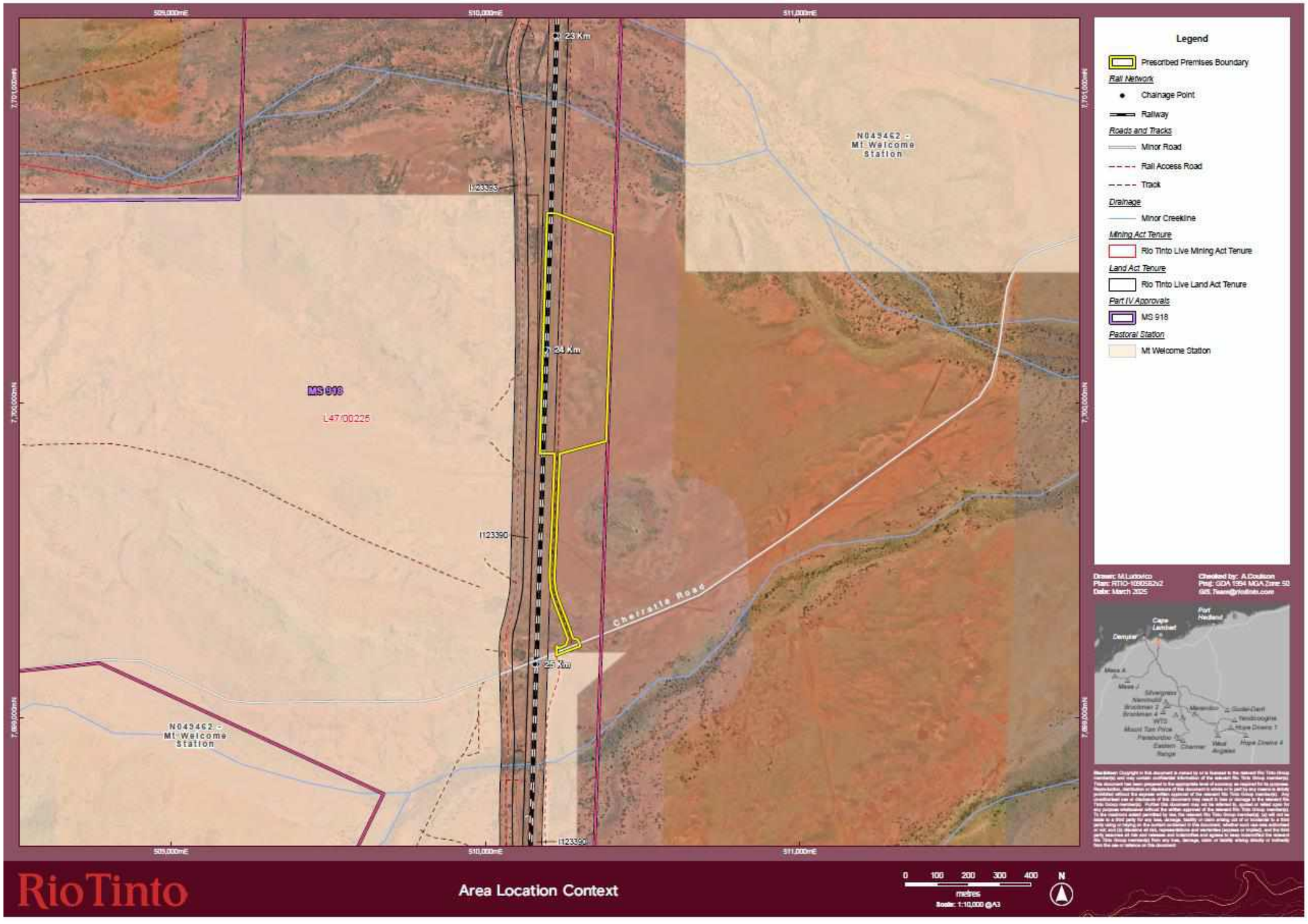
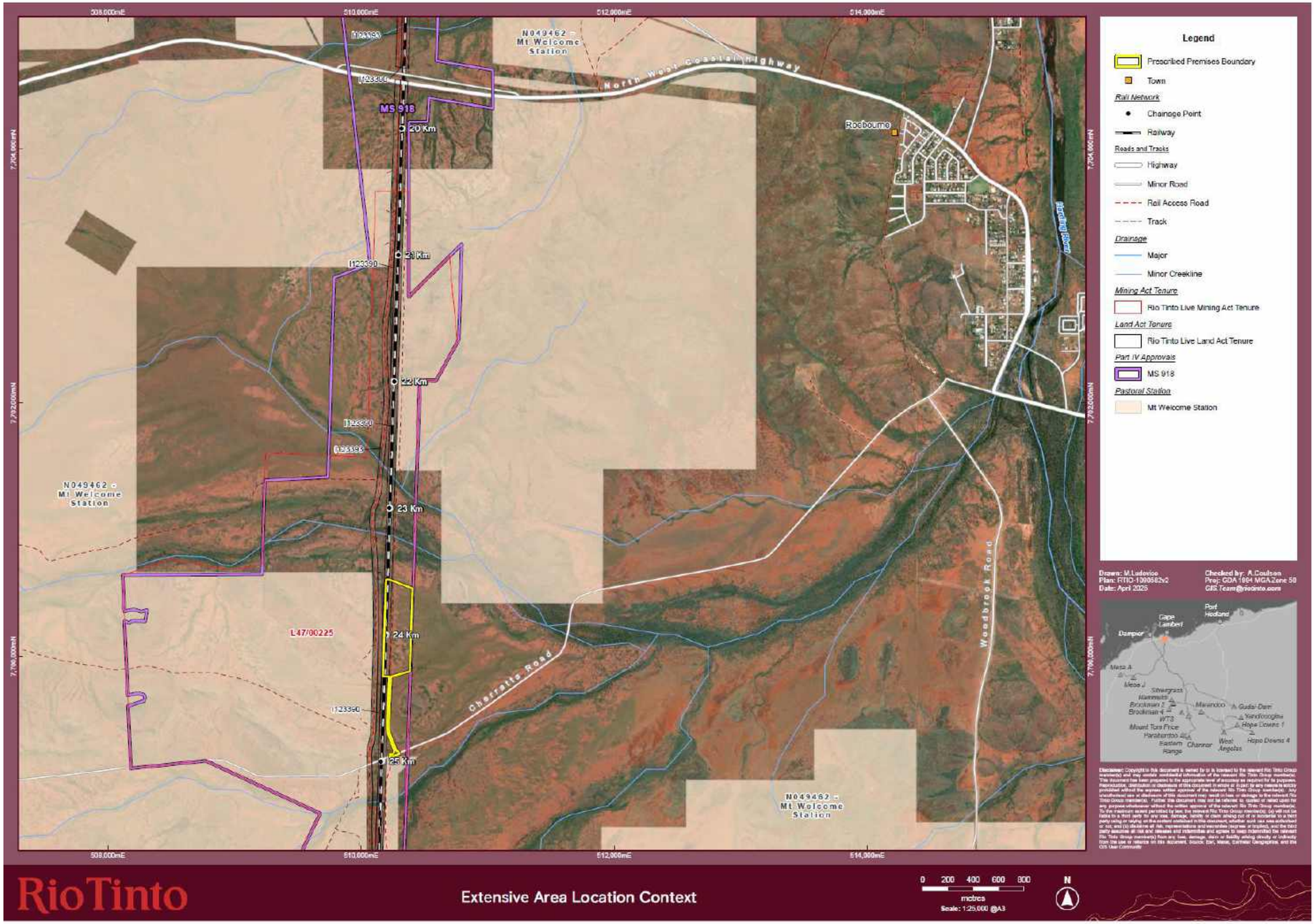


Figure 3: Extensive Area Location Context



2.4 Sensitive Land Uses

The mobile crushing and screening plant and stockpiling will be located within the proposed Prescribed Premises boundary. The distances listed in Table 2 represent the sensitive land uses within the vicinity of the proposed Prescribed Premises boundary (Refer Figure 4).

Table 2: Sensitive Land Uses

Mobile Crush and Screening Plant and Stockpiling	
Sensitive Land Uses	**Distance from Prescribed Activity**
Closest residential zoned premises: Roebourne	Approximately 4.8km northeast
Closest recreation zoned premises: Roebourne	Approximately 4.8km northeast
Harding Dam Public Drinking Water Source Area Priority 1 (PDWSA)	Located approximately 17.5km south
Roebourne Water Reserve (Abolished)	Located approximately 4.44km east
Harding Wellhead/Reservoir Protection Zone (RPZ)	Located approximately 17.5km south
Millstream Chichester National Park	Located approximately 39.4km south
Mt Welcome Station Pastoral Lease (DEWITL 00265, Lease ID N049462)	Surrounds the proposed Prescribed Premises boundary to the south and west, with a small portion intercepting Mt Welcome Station in the south, on an existing access track.
Old Woodbrook Station Ruins	Located approximately 11.46km south
Cooya Pooya Station Homestead	Located approximately 25.46km south
Cheeditha Aboriginal Community	Located approximately 5.2km north-northeast
Mingullatharndo Aboriginal Community	Located approximately 11.8km east

2.5 Specified Ecosystems

The distances to specified ecosystems within the vicinity are shown in Table 3 and Figure 4.

Table 3: Specified Ecosystems

Mobile Crushing and Screening Plants	
Sensitive Land Uses	**Distance from Prescribed Activity**
Department of Biodiversity, Conservation and Attractions - Parks and Wildlife managed tenure: Millstream Chichester National Park	Located 39.4km south
Department of Biodiversity, Conservation and Attractions – Murujuga Aboriginal Corporation jointly managed tenure: Murujuga National Park	Located 35.5km northwest
TEC & PEC	No TECs occur within the Prescribed Premises PEC buffer: Horseflat Land System of the Roebourne Plains buffer boundary (P3) covers Arches North
Significant flora	No Threatened flora species occur within 5km of the Prescribed Premises boundary One Priority flora species occurs within the Prescribed Premises boundary, *Euphorbia inappendiculata* var. *inappendiculata* (P3) (AECOM, 2024). One individual was recorded on orange brown sandy clay loam (Refer Section 2.13)
Significant fauna	No Threatened or Priority fauna species occur within the Prescribed Premises boundary

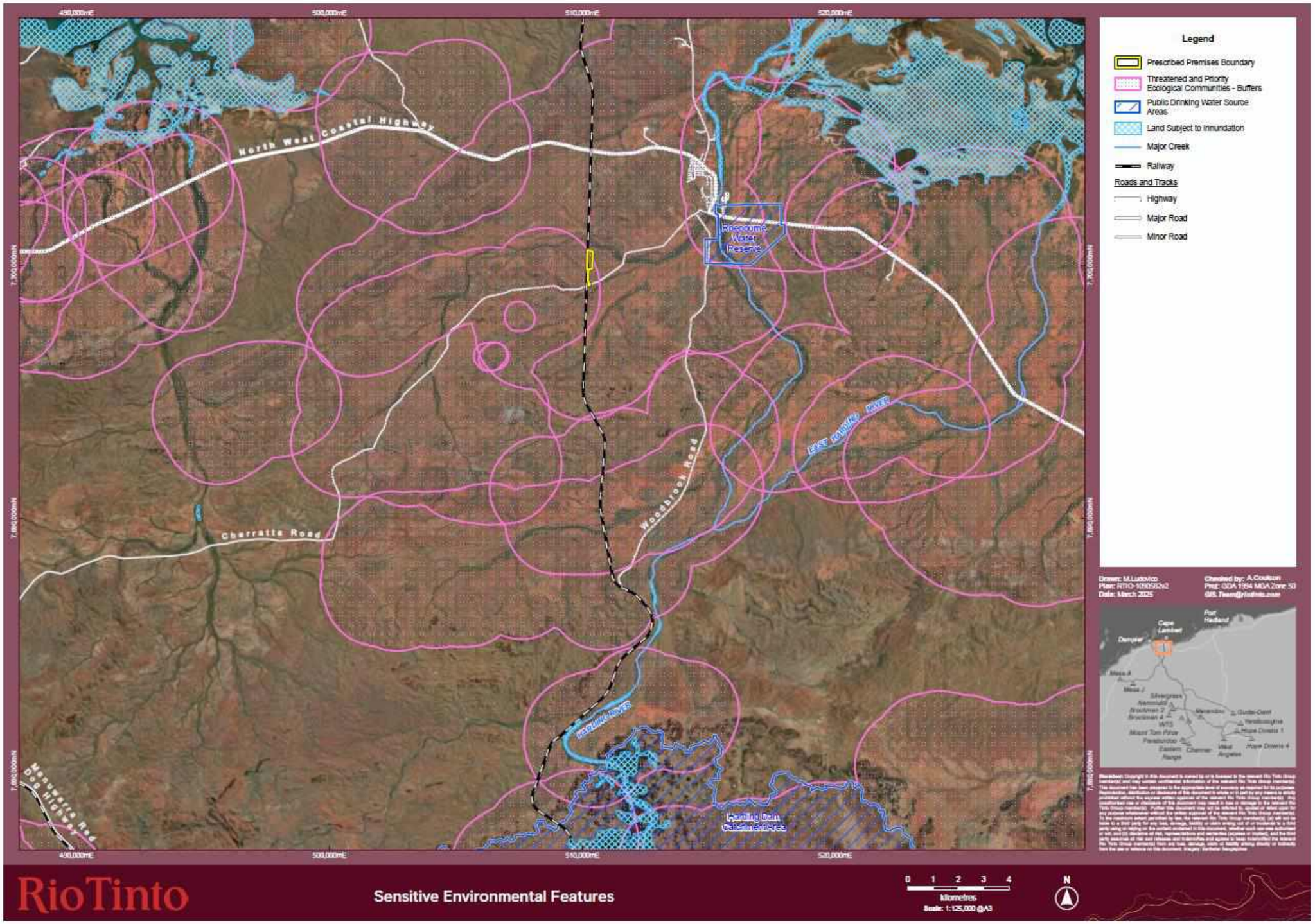
2.6 Other Environmental Receptors

Other environmental receptors relevant to this Works Approval are provided in Table 4 and Figure 3 and Figure 4.

Table 4: Other Landscape Features or Receptors

Mobile Crushing and Screening Plant	
Other receptors or areas of concern	**Location**
Groundwater	Depth to groundwater in the immediate area is unknown but based on historical hydrogeological reports is understood to range between 8m below ground level (bgl) and 14m bgl, based on nearby RTIO supply bores RCE2 and CLEM23 drilled in 2012. CLEM23 is located approximately 0.6km north of the site, and RCE2 located approximately 0.8km west. The site is underlain by the Pilbara - Fractured Rock, based on the DWER aquifer boundaries. The closest bores are RTIO supply bores (maintenance) RCE2 and CLEM23.
Surface Water (250k non perennial watercourses)	No major or minor watercourses occur within the proposed Prescribed Premises boundary. Unnamed watercourses located approximately 0.35km north of Arches North and approximately 0.35km south, feeding into the Harding River approximately 5km east.
Conservation Significant Fauna and Flora	No features of elevated conservation value have been identified inside and within the vicinity of the proposed Prescribed Premises.

Figure 4: Sensitive Environmental Features



2.7 Topography

Broadly, the area includes gilgai clay plains that support a broad suite of mixed Acacia shrublands over spinifex and plains supporting tussock grasslands.

Arches North is located within the Chichester subregion of the Pilbara bioregion, which is described as follows:

> "The Chichester subregion (PIL 1) comprises the northern section of the Pilbara Craton. Undulating Archaean granite and basalt plains include significant areas of basaltic ranges. Plains support a shrub steppe characterised by *Acacia inaequilatera* over *Triodia wiseana* (formerly *Triodia pungens*) hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges. The climate is Semi-desert-tropical and receives 300mm of rainfall annually", (Kendrick, 2001).

Slope gradient mapping indicates Arches North as relatively flat with a gradient over the area ranging between 20 and 18m above mean sea level, and gently sloping to the northeast.

2.8 Hydrology and Hydrogeology

Two unnamed watercourses located 0.35km north and 0.35km south of Arches North run in an easterly direction, feeding into the Harding River approximately 5km east of Arches North. No drainage lines intercept the proposed Prescribed Premises Boundary. There are no permanent water bodies adjacent to Arches North.

Rivers in the Pilbara region are ephemeral and flow only occasionally. Sheet flow areas characteristically occur where there is poorly defined drainage and low gradients, or in flat or gently undulating areas where ponding occurs. Arches North falls within the Harding River Catchment, which is dominated by three main tributaries: Western Creek, Harding River and Harding River East. This catchment covers an area of approximately 1,100km^2 and runoff is high due to intense rainfall events and the relatively impervious nature of the catchment. Streams in the lower reaches of the catchment are wide and braided, often with many parallel and interlinked branches (Ruprecht & Ivanescu, 2000).

Within the Harding River Catchment area there is a Priority 1 Public Drinking Water Source Area (PDWSA); however, Arches North is located north of the PDWSA and does not intercept the area. It is to be noted that the now Abolished Roebourne Water Reserve is located approximately 4.44km east.

The groundwater occurrences in the area are described as limited to shallow unconfined alluvial or fractured rock aquifers and are generally hydraulically connected. It is also considered there is significant surface water to groundwater interaction (Aquaterra, 2008).

Groundwater flow in the alluvial aquifer is generally in the same direction as stream flow. Drainage channels provide recharge to the underlying fractured rock aquifers during periods of river flow, in between rainfall events the subsurface flow and groundwater levels will likely follow a recession pattern. The groundwater quality in fractured rock and alluvial aquifers ranges from fresh to brackish (Aquaterra, 2008).

Along all creeks and rivers in the Pilbara, where riverine vegetation has established, it is likely that this vegetation is supported by groundwater in the river alluvium (Aquaterra, 2008).

Arches North is located within the Pilbara Surface Water Area declared under the *Rights in Water and Irrigation Act 1914* (RIWI Act).

There are no 'Wetlands of National significance' or 'Wetlands of subregional significance' occurring within the area.

Because of the low impact nature of the proposed clearing and subsequent rehabilitation, the proposed activities are unlikely to significantly impact on the quality of surface or groundwater resources in the area. Furthermore, because of the small area of any proposed clearing in relation to the total size of the Catchment, it is unlikely that the removal of native vegetation will impact catchment hydrology.

2.9 Flood Modelling

Rio Tinto Iron Ore Rail Engineering have run flood modelling scenarios to estimate the potential flood risk at the location of Arches North.

The catchment was modelled as a 2D domain with 1D drainage crossings using Tuflow software. This model adopts generic Pilbara runoff characteristics. Storm events at a 12hr duration and Annual Exceedance Probability (AEP) of 1:5yr, 1:10yr, 1:20yr, 1:50yr & 1:100yr were assessed (Refer Figure 5).

Modelling indicates that all AEP events resulted in flooding on the western extent of the railway line, with the east remaining relatively flood free. The west side of track is very low lying, with the presence of the rail access road functioning like a drain in all rainfall events. The eastern side is similarly low lying but shielded to an extent from flooding by the rail formation structure itself.

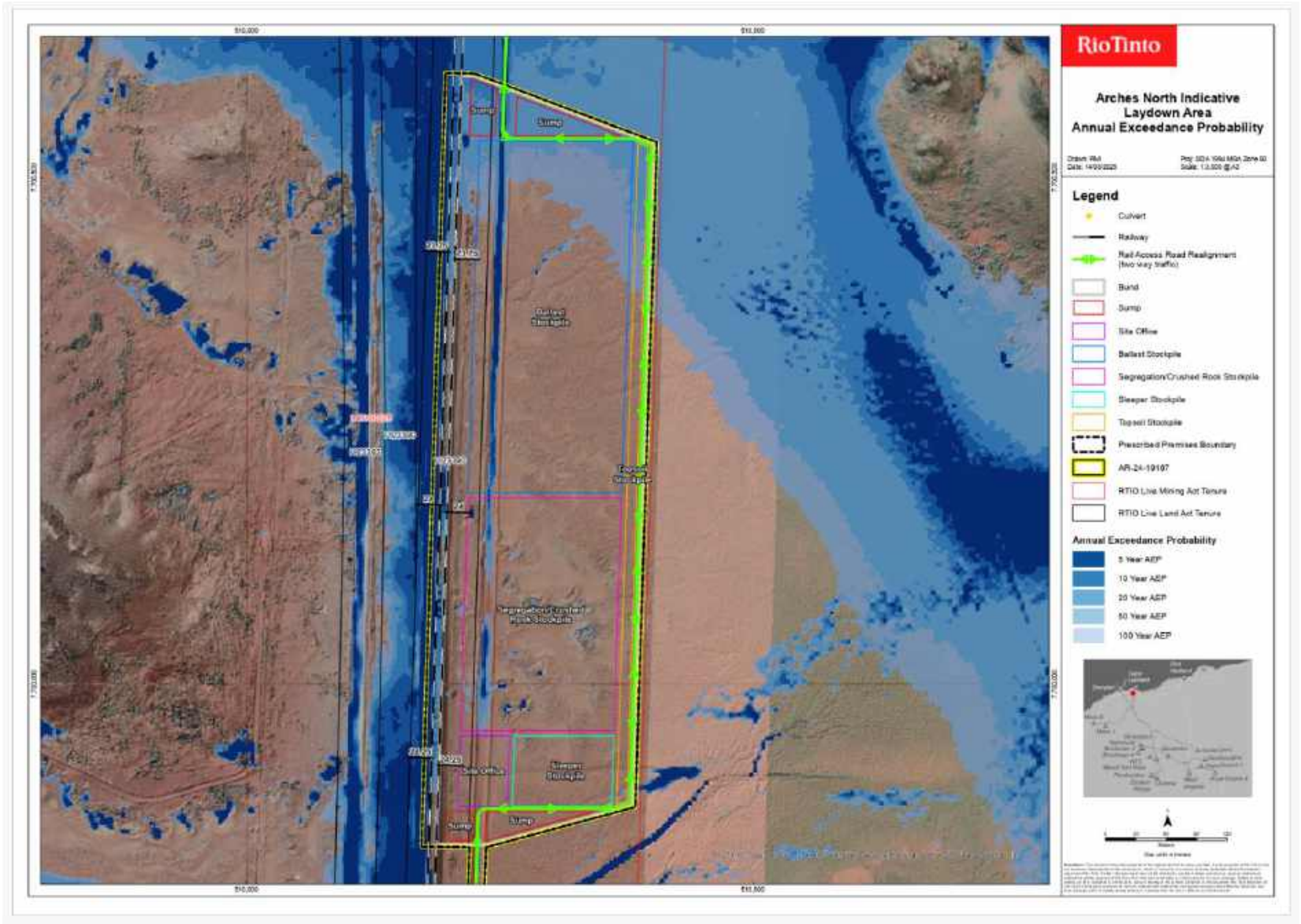
In general, rail culverts and bridges are designed appropriately to allow for continued flow; however, some backflow or slow in velocities during flood events may occur. Mitigation measures to prevent potential flooding of Arches North (on the east) will include earthen bunding around the proposed Prescribed Premises boundary at a generic height of approximately 0.4m above ground level, preventing ingress of any surplus water during significant rainfall events.

Consideration of the internal bunded area capturing any incidental runoff has also been given and will include diverting internal surface water runoff to appropriately sized internal sumps, for collection and evaporation. Final earthen bunding height and sump sizing will be based on final engineering design processes and constructed to manage potential surface water runoff.

2.10 Public Drinking Water Source Area

Arches North does not intersect with any public drinking water supply areas.

Figure 5: Flood Modelling Data AEP



2.11 Geology

In general, the geology is predominantly Archaean basement variably overlain by Quaternary-Recent sediments along drainage channels and topographic lows; drainage channels typically coincide with regional scale faults. Archaean basement rocks are predominantly mafic and ultramafic volcanics with minor clastic sediments and granitic intrusions. The Cleaverville Formation, exposed north and west of Roebourne, comprises bonded iron formation, chert, shale and minor volcaniclastic rocks. Units are typically metamorphosed and/or retrogressed to low grade assemblages although many mafic extrusive rocks preserve primary magmatic structure. There are potential acid sulphate soils in the coastal area and in areas close to the estuarine, river and wetland systems (Aquaterra, 2008).

Soils have been reported as comprising gilgaied and non-gilgaied clays, stony soils, calcareous shallow loams and red shallow loams ((Van Vreeswyk et al 2004).

2.12 Fauna and Fauna Habitat

A single-phase detailed fauna survey was conducted partially over the proposed Prescribed Premise (Biota, 2008), and a desktop assessment of fauna values was conducted over the entirety of the Prescribed Premises (GHD, 2023a).

No Threatened or Priority fauna taxa have been recorded within the proposed Prescribed Premises boundary.

Two fauna habitats were mapped within the proposed Prescribed Premises boundary, as well as cleared areas (GHD, 2023a):

- Claypans on alluvial plains represented 11.0 ha (67.7%) of the Prescribed Premises.
- Hills, ridges and stony footslopes represented 0.1 ha (0.3%) of the Prescribed Premises.
- Cleared areas represented 2.5 ha (32.0%) of the Prescribed Premises.

The habitats of the proposed Prescribed Premises do not represent specific habitat that species are dependent upon.

No significant fauna microhabitats such as caves, waterholes, significant creek lines, gorges, large tree hollows or termite mounds were observed within the area that would constitute locally or regionally significant habitat for fauna indigenous to the area. The habitats are therefore not considered to be of elevated conservation significance (Refer Figure 6).

2.13 Vegetation and Flora

Beard (1975) mapped the vegetation of the Pilbara at a scale of 1:1,000,000. The proposed Prescribed Premises lies in the Abydos Plain – Chichester system. This vegetation system is described as hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana*.

A flora and vegetation desktop assessment mapped two vegetation types within the proposed Prescribed Premises, as well as cleared areas (GHD, 2023b):

- Cw: *Corymbia* woodland represented 11.8ha (72.4%) of the proposed Prescribed Premises.
- Etg: *Eragrostis* tussock grassland represented 3.6ha (21.7%) of the proposed Prescribed Premises.
- Cleared: areas devoid of native vegetation represented 0.96ha (5.9%) of the proposed Prescribed Premises.

The vegetation types recorded were representative of the Beard (1975) vegetation mapping.

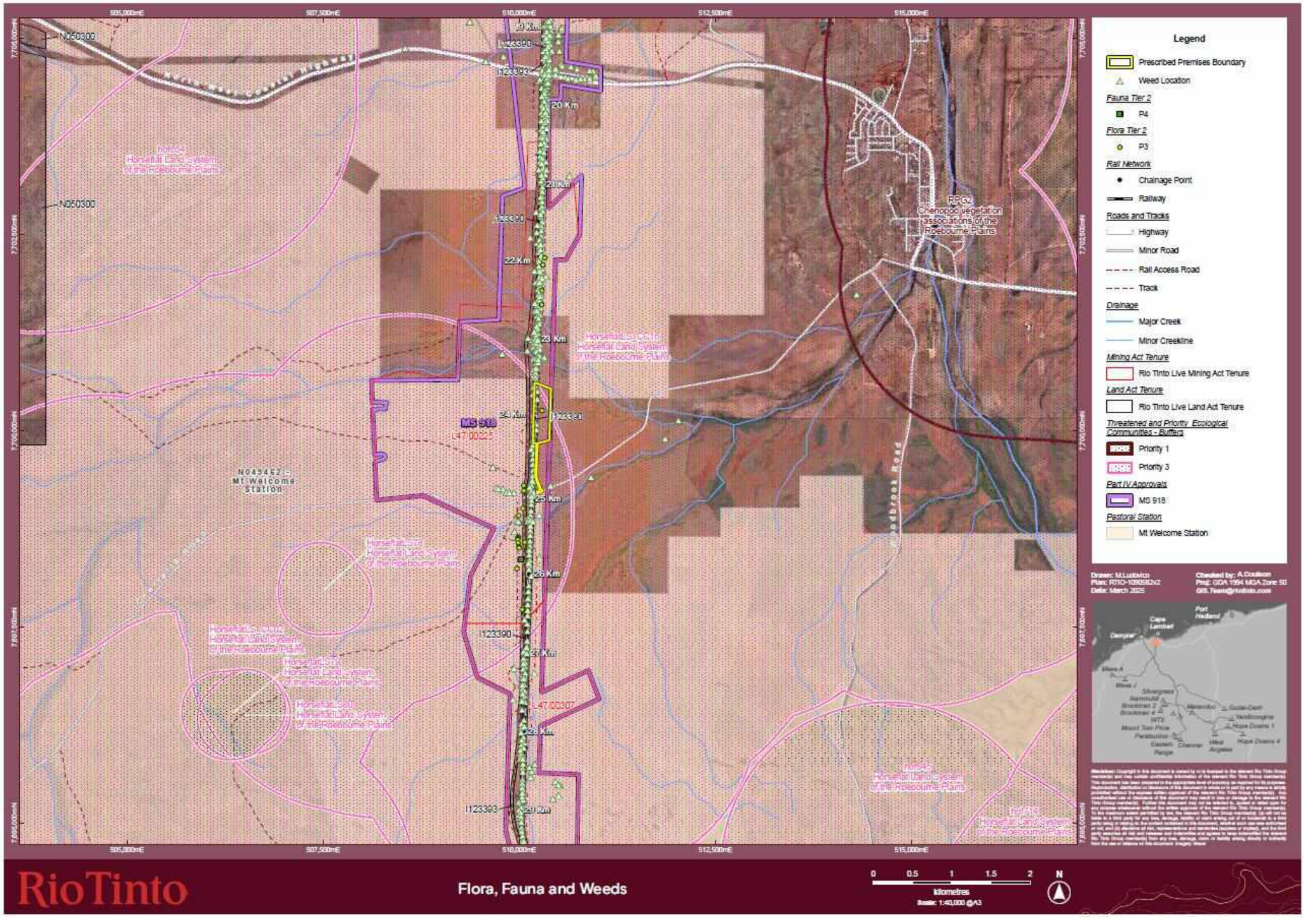
The entirety of the Prescribed Premises is mapped as representative of the Horseflat Land System of the Roebourne Plains (Priority 3) PEC by Department of Biodiversity, Conservation and Attractions (DBCA).

One Priority flora species has been recorded within the proposed Prescribed Premises boundary, *Euphorbia inappendiculata* var. *inappendiculata* (P3).

Three introduced flora species have been recorded within the proposed Prescribed Premises boundary, **Aerva javanica*, **Cenchrus ciliaris*, and **Cenchrus setiger*.

It is to be noted that during recent biological surveys (Aug-2024) the above Priority 3 (P3) species, Euphorbia inappendiculata var. inappendiculata was recorded; however, with no relevant MS 918 Conditions regarding Priority flora, it is most likely that this specimen will be removed during site preparation works (Refer Figure 6).

Figure 6: Flora and Fauna



3 Stakeholder and Community Consultation

3.1 DWER

Consultation with the Department of Water and Environmental Regulation – Regulatory Services Environment branch regarding this application has been undertaken during previous DWER and RTIO Quarterly Meetings (Feb-2025) and will continue to be discussed at these meetings if required.

3.2 Community Consultation

The Licensee has a long-term commitment to working with Pilbara communities and recognises that local communities have a direct interest in their activities.

The mobile crushing and screening plant and stockpiling activity is not expected to directly affect any communities and therefore no specific community consultation has been undertaken. Given a small area of the proposed Prescribed Premises boundary intercepts Mt Welcome Pastoral Station (access track) and as per tenement conditions, Mt Welcome have been notified regarding the intended works (Refer Section 3.13 below).

Arches North will be enclosed by an earthen bund, demarcating the area and preventing entry from any cattle that may be loose in the area.

3.3 Aboriginal Heritage

Arches North is located within the traditional lands of the Ngarluma People. The identification and management of cultural heritage within the traditional lands of the Ngarluma Traditional Owners is in accordance with the principles and practices outlined within Rio Tinto's Communities and Social Performance Guidelines, the Rio Tinto Cultural Heritage Group Procedure.

Heritage surveys were previously conducted across the area and along the railway line in 2012.

Arches North does not intercept any Registered Aboriginal cultural heritage sites, as per the Department of Planning, Lands and Heritage (DPLH) Aboriginal Cultural Heritage Inquiry System (ACHIS) (Refer Appendix A). The closest Registered heritage site in proximity of Arches North is site Woodbrook (7974) located approximately 2.86km east (Refer Figure 7).

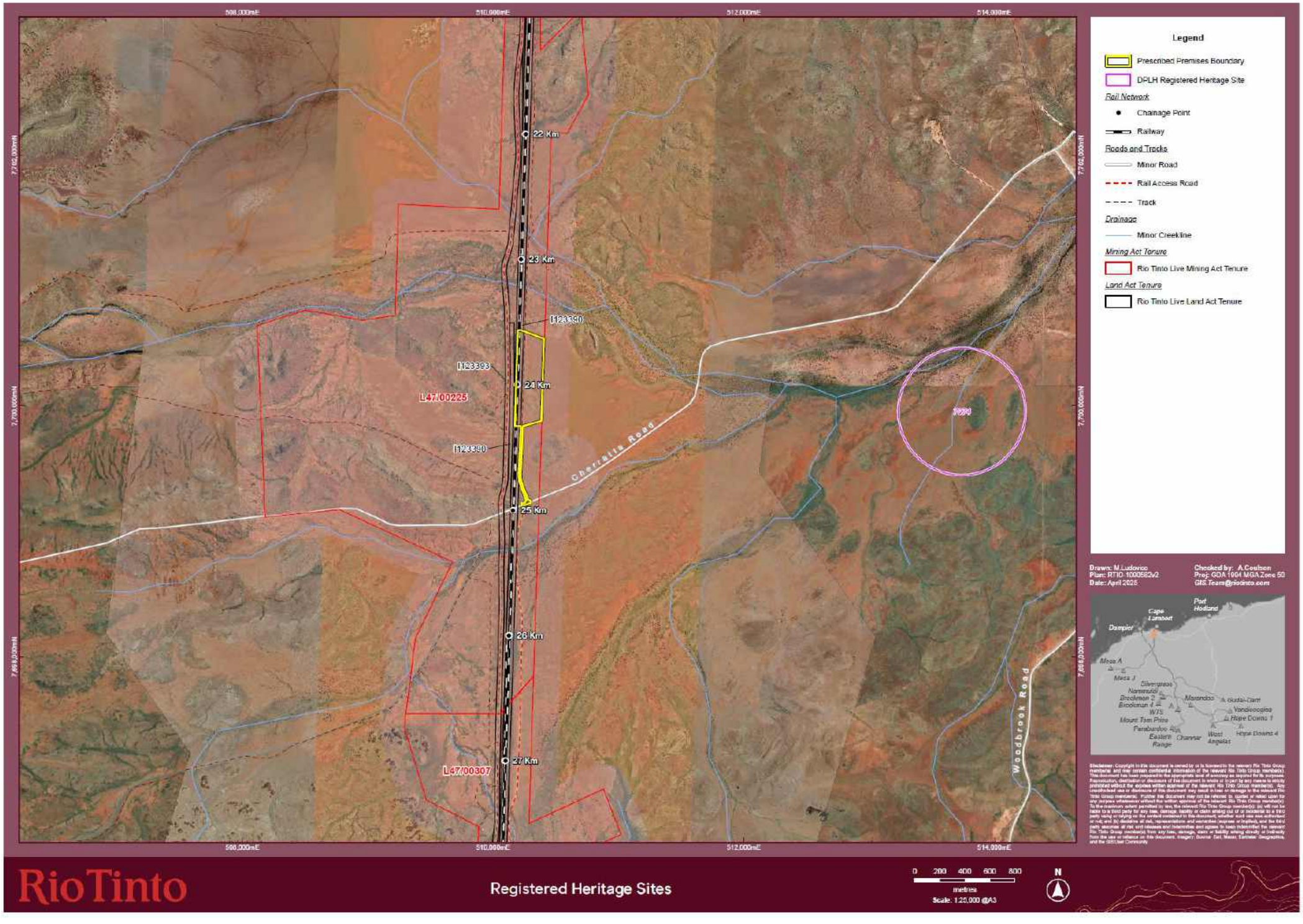
Heritage sites will be actively managed in relation to the proposed activities to avoid impact during the operation of the mobile crushing and screening plant and all obligations met as required under the Aboriginal Heritage Act 1972.

The following engagement steps with Mt Welcome Station and Ngarlulma Aboriginal Corporation have been undertaken.

Rio Tinto Pastoral Team Manager reached out to Dave Rutherford (Karratha & Mt Welcome Stations Manager).	November 2024	It was advised that this small location wouldn't affect any grazing country for cattle.
RTIO Ngarluma Traditional Owner Engagement Lead (Danial Strachan) and Ngarluma Elder	21 November 2024	No concerns were raised by Ngarluma at the time about this area or proposed works.

Keith Churnside, visited the proposed location.		
RTIO Ngarluma Traditional Owner Engagement Lead (Danial Strachan) reached out to Ngarluma during October and November	October and November 2024. Specific dates recorded: 9/10, 22/10, 4/11, 11/11, 19/11, 28/11.	No response received.
RTIO letter notification dated 9-Dec-24 sent to Ngarluma asking for comment and acknowledgement of notification.	16 and 17 December 2024 (phone call)	No response received by the requested date of, 13 December 2024.

Figure 7: Registered Aboriginal Heritage Sites (DPLH)



4 Prescribed Premise Category

The proposed facilities are considered Prescribed Premises as defined by Schedule 1 of the Environmental Protection Regulations 1987 (WA) (Refer Table 5).

Table 5: Prescribed Premise Category

Category number	Category Description	Category	Premises Production or Design Capacity
12	Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	50,000 tonnes or more per year	820,000 tonnes per annual year
61A	Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.	1000 tonnes or more per year	820,000 tonnes

The proposed Prescribed Premises boundary coordinates (GDA 1994 MGA Zone 50) are shown in Table 6.

Table 6: Proposed Prescribe Premise Boundary Coordinates

ID	Easting	Northing
1	510225.175	7700602.554
2	510404.861	7700534.763
3	510383.606	7699878.374
4	510236.248	7699838.492
5	510234.709	7699802.261
6	510224.518	7699562.246
7	510219.765	7699456.281
8	510220.138	7699429.845
9	510222.812	7699407.874
10	510227.24	7699388.84
11	510234.146	7699369.589
12	510260.189	7699301.841
13	510277.942	7699252.106
14	510287.614	7699248.769
15	510293.692	7699246.662
16	510301.833	7699226.765
17	510231.114	7699199.911
18	510225.942	7699197.146

ID	Easting	Northing
19	510226.919	7699227.322
20	510232.128	7699219.957
21	510254.589	7699228.752
22	510262.824	7699248.333
23	510242.13	7699303.99
24	510219.094	7699365.004
25	510212.147	7699385.784
26	510207.725	7699403.329
27	510206.098	7699418.396
28	510205.234	7699429.657
29	510204.178	7699455.62
30	510206.119	7699514.884
31	510210.919	7699609.079
32	510220.055	7699838.636
33	510172.607	7699839.057
34	510196.212	7700603.143

4.1 Current EP Act (Part V, Div 3) Licences/Works Approvals

There are presently no Part V Licences or Works Approvals in place for the mobile crushing and screening plant or stockpiling of offsite material within Arches North.

4.2 Rights in Water and Irrigation Act 1914

Any water required to support crush and screening and stockpiling activities will be sourced from a Rio Tinto Licenced bore. It is anticipated that nearby groundwater bore CLEM23, located approximately 0.6km north of Arches North will be utlised as a water source. Groundwater abstraction and utilisation will comply with Conditions of RIWI Act 5C Licence GWL176810(2) (RTIO-HSE-0168653), that expires on 18/01/2028.

4.3 Part IV of the EP Act 1986

The Arches North area is covered by Ministerial Statement 918. Any clearing required will be undertaken under MS 918, and it is estimated that up to 12ha of clearing maybe undertaken.

4.4 Part V (Div 2) of the EP Act 1986

No clearing under Part V of the EP Act will be undertaken at Arches North.

4.5 Local Government and Department of Health Approvals

The construction and operation of the mobile crushing and screening plant is not subject to Local Government or Department of Health approvals.

4.6 Mining Act 1978

The area and activities are covered by the Strategic Rail Mining Proposal (REG ID 113115) approved 23 May 2023. All Tenement Conditions will be complied with.

5 Process Description

5.1 Facility Overview

As the Railway Division undertakes ballast cleaning and rail renewal works across the IRN, degraded ballast/rail civil materials are removed from track and from the rail formation.

The entire IRN requires ballast cleaning/renewal to maintain safe operations and to extend the life of the asset. Ballast degradation occurs over time due to normal rail activities as edges of the ballast become rounded and less effective. Thus, ballast renewal must occur, as required, throughout the life of the IRN. Annually, the Railway Division could replace up to 625,000 tonnes of ballast across the rail network depending on planned maintenance activities and volume of degraded material to be removed. The track renewal programme will at times also capture sub ballast capping material, which forms part of the rail formation. These removed civil materials or products have been geotechnically tested for reuse in other civil related projects within the Railway Division, and our wider Pilbara operations producing a circular economy and reuse of materials.

Rio Tinto has determined degraded ballast/rail civil material to be a product, as it has an ongoing use and therefore will not be treated as a waste at this time.

Track renewal programmes also include the removal and replacement of concrete sleepers, of which, maybe temporary stockpiled at Arches North as required; however, will not be crushed and screened.

The degraded ballast/rail civil material will be temporarily stockpiled at Arches North for crushing and screening, and later repurposing within our Railway Division and our wider Pilbara Operations.

Refer to Figure 8 for an overview of the facilities indicate layout.

5.2 Mobile Crushing and Screening Plant – Category 12

The material will be pre-screened via the Heavy-Duty Screen 883+ unit removing any foreign objects (rail clips and pads etc) and over/undersize material.

No civil material will be flagged as waste during the screening process, rather it is anticipated that due to the various repurposing options within our business and ability to mix material to meet Rio Tinto engineering specifications, all material will be reused.

The first screen in the process, the 883+ can theoretically operate at 400-500TPH if split evenly across all 3 belts. However, the feed material and screen sizes will determine this split. It is expected that most material will report to the midgrade belt and that a throughput of 200TPH would be representative. Under Category 12 the proposed annualised crush and screen volume is estimated at 820,000 tonnes per annual period, which is primarily driven by the material handling and storage capacity limits of the laydown area.

The mobile crush and screen plant will facilitate the reuse of rail degraded ballast/civil material for large rail renewal maintenance projects, resheeting of rail access road, rehabilitation, mine pit backfill, grade separation projects, mine haul road maintenance, track ramp construction and other Rio Tinto projects where the material has a use.

The indicative mobile crushing plant components comprise Cone Crusher, Heavy Duty first screen, and final screen. A Terex Finlay plant has been used for throughput calculations and work planning associated with this project. However, it should be noted that this specific make of plant is subject to change based on the contractor availability. If a different make is used, it will be of similar specification and with the same environmental controls. Basic specifications and process diagrams are provided in Appendix B.

The mobile crushing and screening plant will be located within the bounds of Arches North (Refer Figure *8*). The area has previously been partially disturbed during fibre optic installation and the creation of rail maintenance access tracks.

The process and specifications are as follows:

Step	Description
Step 1 – Initial Screen	The material will be pre-screened via the Heavy Duty Screen 883+ unit removing any foreign objects and over/undersize material. No material will be flagged as waste during the screening process, rather it is anticipated that due to the various repurposing options and ability to mix material to meet Rio Tinto engineering specifications, all material will be reused. Material will be fed into the initial screening unit via an excavator or front-end loader. The first screen in the process, the 883+ can theoretically operate at 400-500TPH if split evenly across all 3 belts. However, the feed material and screen sizes will determine this split. It is expected that most material will report to the midgrade belt and that a throughput of 200TPH would be representative.
Step 2 – Cone Crusher	It is proposed that the material will then be crushed through a diesel powered Cone Crusher unit. However, if a different make is used, it will be of similar specifications. C1545S throughput is determined mainly by how tight the cone is closed and this is determined by the feed material bulk density and the final product size, which will change depending on the target Rio Tinto Specification that material is being repurposed for. If material was to be crushed at 20mm then this may be 180-190TPH (including the recirculation load from the 696 screen). If the product was just 40mm then it would be likely a 230-240TPH throughput. However, in this instance given much of the civil material to be crushed is in excess of 40mm Rio Tinto have assumed a maximum 200TPH throughput. Material will be fed into the crushing unit via an excavator or front-end loader.
Step 3 – Final Screen	The final screen will occur through the Incline Ascreeen 696 2-deck unit to ensure product size is as required depending on the reuse/repurposing of the material. The 696 screen can handle 400-500TPH across it but considering the recirculating loads may impact throughput, and also the final product sizes as smaller sizes, could result in more recirculating load to the screen. The proposed annualised crush and screening volume is estimated at 820,000 tonnes per annum under Cat 12.

The mobile crushing and screening plant will be fitted with dust suppression, including dust covers should they be required. Water will be sourced from RTIO Licenced supply bore CLEM23, located approximately 0.6km north. It is proposed that a watercart will take water from the supply bore and fill a holding tank located onsite. This water will then be used to feed the crush and screen plant and used for dust suppression as required.

The plant is preconfigured for use so the only modifications required during setup is the setting of the crusher aperture to deliver product of the required size, testing of dust suppression systems, and installing the screens required to produce materials of the desired size. During setup, dust suppression sprays will be tested to ensure functionality. The setup period will be completed within a month of mobilising the crushing and screening plant to site.

The mobile crushing and screening plant will be a standalone unit powered by self-contained diesel engines. Diesel refuelling will be supplied periodically by a Rail Service Truck and subject to the hydrocarbon transfer/handling controls detailed in the RTIO Integrated Rail Network Environmental Management Plan April 2023 (RTIO-0978875), Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877), and RTIO Environmental Design Criteria - Permanent and Temporary Facilities (RTIO-AM-0032910). Other key procedures include Emergency Response Plan (RTIO-HSE-0304308), Spill Response Procedure (RTIO-HSE-0010867), Notification of Environmental Incidents Procedure (RTIO-HSE-0076061). Procedures are available upon request.

The crush and screened material under this Works Approval may also be blended with imported clean material ensuring Rio Tinto Railway Division Engineering Specifications are met for various repurposing options.

The crush and screen activity under Category 12 will be required for approximately 10 years as ballast cleaning and track renewals are undertaken across the entire rail network.

Once the majority of the ballast cleaning has been completed, crushing and screening of degraded material will be significantly reduced and the requirement to repurpose material will be reviewed.

5.3 Stockpiling of Offsite Material – Category 61A

Annually, the Railway Division could replace up to 625,000 tonnes of ballast across the rail network depending on planned maintenance activities and volume of degraded material to be removed. Stockpiling of degraded rail material from across the IRN will be necessary at Arches North prior to the crush and screen activities for reuse in the Railways Division maintenance programmes and across our Rio Tinto Pilbara Operations where required and allows for consolidation and control of this material in a strategic location rather than a multitude of smaller laydown areas across the network.

The stockpiling will also include other rail civil material such as concrete sleepers, sub-ballast capping (SBC) material and formation where track renewal maintenance programmes warrant its renewal.

The volume of degraded material identified for stockpiling at Arches North, is estimated at approximately 820,000 tonnes, which also reflects the facilities holding capacity and is not a annualise throughput volume.

Approximately 30,000 (9,900 tonnes) used concrete sleepers[1] will also be temporarily stockpiled here as the Railway Division assess options for reuse or disposal.

Baseline soil samples across Arches North will be collected and analysed prior to crush and screen and stockpiling works commencing.

[1] Total concrete sleeper volume excluded from the total assessed design capacity of 820,000 tonnes under Cat 61A.

An indicative stockpile management and design for Arches North has been developed and will be implemented prior to the commencement of any stockpiling activities (Refer Figure 8) and include:

1. Typical slope angle of 3:1 or approximately 18 degrees, with multiple lifts;
2. A maximum height of ≤14m above ground level;
3. An erosion resistant earthen bund at approximately 0.4m in height surrounding the degraded material stockpiles or at a height as per detailed engineering design determines;
4. A total facility capacity of 820,000 tonnes of stockpiled degraded ballast. With indicative material stockpile areas comprising:
    a. Ballast/Crushed Rock stockpile.
    b. Segregation stockpile (for degraded material removed during emergency/urgent maintenance works, awaiting sampling and analytical results) and Crushed Rock product.
5. A total facility capacity of up to 30,000 (9,900 tonnes) temporary used concrete sleepers[2]; and
6. Earthen sumps to collect any stockpile runoff and sediment following large rainfall events.

Arches North Strategic Laydown Operational Management Plan will be developed to capture site specific management, internal accountabilities and controls.

The stockpile area will be contained via the construction of earthen bunding at approximately 0.4m high containing stockpile surface water runoff and sediment mitigation during rainfall events. Small collection sumps will also be constructed for surface water runoff collection and evaporation. The stockpiled area will be inspected following large rainfall events to ensure integrity of these management processes and systems. Based on the completed risk assessment and analytical sampling for each ballast cleaning programme of work, an earthen liner may be constructed for the stockpiling area.

The Licensee will undertake record keeping and recording of material movements to Arches North for stockpiling, volumes of material crush and screened, and volumes removed for repurposing. Records will be available upon request.

Dust management will be undertaken to minimise and manage the potential for dust lift off from stockpiles and will include water carts or other approved dust suppression agents if required. Stockpiles shall be inspected regularly to ensure potential dust generation events and dusting of surrounding vegetation is minimised.

5.4 Material Characteristics

Rio Tinto has completed significant background sampling and leachate testing of degraded ballast/rail civil material to understand its characteristics and any potential risks the material may pose to the environment and developed our own internal sampling and stockpiling decision and reuse decision process guidelines. Prior to any degraded ballast or rail civil material being removed from the network the material is sampled at regular intervals and analysed by an accredited laboratory. Analytical results are reviewed by the Rio Tinto Contaminated Sites and Waste Specialist/Rio Tinto Rail Environmental Site Advisor to confirm the material is suitable for repurposing and stockpiling (as per our Rail Degraded Ballast Decision Process Flow Chart and Post Renewal Material Management Plan 2024) or whether the material poses an unacceptable environmental risk and is to be disposed of at an appropriate licenced facility. Testing includes asbestos concentrations.

Rio Tinto is treating this material as a product as it has multiple reuse options across our operations, therefore we have developed our own internal sampling, stockpiling and reuse decision process procedures.

[2] Total concrete sleeper volume excluded from the total assessed design capacity of 820,000 tonnes under Cat61A.

Rio Tinto has consulted with DWER on this approach and confirmed that degraded civil material is not considered a waste but rather a product as long as it has genuine reuse options.

5.5 Timescale for Construction/Operation

It is expected that the crushing and screening plant will be mobilised to Arches North in July 2025 and is expected to be operating when required over the next 10 years to support the rail maintenance renewal activities undertaken within this area of the rail network.

5.6 Setup and Reporting

The plant is preconfigured for use so the only modification required during setup is the setting of the crusher aperture to deliver product of the required size, testing of dust suppression systems, and installing the screens required to produce materials of the desired size. During setup, dust suppression sprays will be tested to ensure functionality. The setup period will be completed within a month of mobilising the crushing and screening plant to site.

Other activities such as boundary demarcation and earthen bund construction, and sump installation will also be undertaken at this time, preparing the area for crush and screen and stockpiling movements.

An Operating Licence will be required as mobile crushing and screening activities will be required for a period of at least 10 years.

Given the short setup period required and no commissioning as such, it is requested the completion of an environmental construction compliance report be sufficient.

5.7 Inspection and Servicing

Routine servicing of the mobile crushing and screening plant will be undertaken as required. Servicing includes replacement of wear plates and parts, running mechanical repairs, engine servicing and lubricant change out.

Figure 8: Arches North Indicative Laydown Area

6 Risk Identification and Assessment

A risk assessment has been prepared to identify the potential emissions from the proposed activities and the potential sources, pathways and receptors of those emissions, and proposed controls to manage potential emissions to determine a risk rating. The risk assessment has been based on the DWER Guidance Statement: Risk Assessments (released by the then named Department of Environmental Regulation in 2017) and the Company risk assessment process, based on the following risk rating matrix (Table 7):

Table 7: Risk Rating Matrix

	Consequence				
Likelihood	**Slight**	**Minor**	**Moderate**	**Major**	**Severe**
Almost Certain	**Medium**	**High**	**High**	**Extreme**	**Extreme**
Likely	**Medium**	**Medium**	**High**	**High**	**Extreme**
Possible	**Low**	**Medium**	**Medium**	**High**	**Extreme**
Unlikely	**Low**	**Medium**	**Medium**	**Medium**	**High**
Rare	**Low**	**Low**	**Medium**	**Medium**	**High**

Risk = consequence x likelihood

The following criteria from the DWER Guidance Statement: Risk Assessments are used to determine the consequence and likelihood of a risk event occurring (Table 8 and Table 9).

Table 8: Consequence Matrix

Consequence	**Consequence description**	
	Environment	**Health**
Severe	On-site impacts: catastrophic Off-site impacts (local scale): high level Off-site impacts (wider scale): mid level Mid to long term or permanent impact to an area of high conservation value or special significance	**Loss of life** **Adverse health effects: high level or ongoing medical treatment** **Local scale impacts: permanent loss of amenity**
Major	On-site impacts: high level Off-site impacts (local scale): mid level Off-site impacts (wider scale): low level Short term impact to an area of high conservation value or special significance	**Adverse health effects: mid level or frequent medical treatment** **Local scale impacts: high level impact to amenity**
Moderate	On-site impacts: mid level Off-site impacts local scale: low level Off-site impacts wider scale: minimal	**Adverse health effects: low level or occasional medical treatment** **Local scale impacts: mid level impact to amenity**

Consequence	Consequence description	
Minor	On-site impacts: low level Off-site impacts (local scale): minimal Off-site impacts (wider scale): not detectable	Local scale impacts: low level impact to amenity
Consequence	**Consequence description**	
	Environment	**Health**
Slight	On-site impacts: minimal	Local scale impacts: minimal impacts to amenity

Table 9: Likelihood Matrix

Likelihood	Likelihood description
Almost certain	The risk event is expected to occur in most circumstances.
Likely	The risk event will probably occur in most circumstances.
Possible	The risk event could occur at some time.
Unlikely	The risk event will probably not occur in most circumstances.
Rare	The risk event may only occur in exceptional circumstances.

The potential emissions, sources, pathways and receptors that have been identified for the commissioning and operation of the crush and screen plant are outlined in Table 10. This table also identifies the potential impacts, proposed controls and associated risk ratings. A detailed risk assessment will be undertaken for any activity which has been identified as having a 'Medium' risk rating or higher. Detailed risk assessment includes:

1. A description of the potential emissions, sources, pathways and receptors;
2. Any controls that have been identified for the risk event;
3. An assessment of the consequence and likelihood; and
4. Risk rating.

Table 10: Risk Assessment

Source		Potential Emission	Pathway	Potential Receptors	Potential Impacts	Proposed Controls	Consequence	Likelihood	Risk Rating	Detailed Assessment Required?
Category 12 Crushing and Screening (offsite Rail material)	Operation of crushing and screening equipment at Arches North Laydown	Dust	Air (windborne)	Residential/Communities Priority fauna and habitats of elevated conservation significance Flora of elevated conservation significance PEC Buffer: Horseflat Land System Plains (P3) Areas of conservation/environmental significance Surface water or permanent waterbodies Asbestos	No sensitive land use such as towns or communities in close proximity therefore potential dust impacts on communities and visibility/inhalation is not anticipated. Dust impacts on surrounding priority flora/vegetation, including reduced ability for photosynthesis due to smothering. No priority fauna or habitats of elevated conservation significance recorded within or in close proximity to the site. Dust impacts to PEC buffer Horseflat Land System Plains (P3) reducing ability for photosynthesis and smothering the ecosystem. Dust impacts on Priority (P3) flora species reducing ability for photosynthesis due to smothering. No TECs within the Site or in close proximity. No significant creeklines/waterways or surface waterbodies in close proximity. No potential impacts from asbestos as material is tested for asbestos prior to removal from the rail network.	Dust suppression via the application of crusting and stabilising agents or water on trafficable areas including water sprays, water trucks, control of vehicle movements/restricted speeds. Spraying the crushing and screening feed stockpile with water prior to being fed into the screen if necessary. Use of angle-adjustable stockpiling conveyors to minimise drop heights. The crush & screen plant will be fitted with a hose and water sprays for dust suppression, including dust covers should they be required. Any exclusion areas and areas of significance (PEC), as per RT internal ArcMap GIS system, will be specifically managed/avoided and are demarcated. Progressive rehabilitation of disturbed areas no longer needed for operational purposes. As per RT Rehabilitation Management Plan (RTIO-HSE-0058421) and Rehabilitation Handbook (RTIO-HSE-0011608). The Integrated Rail Network EMP incorporates management of fibrous material through Rio Tinto procedures: – Fibrous Minerals Management Plan (RTIO-PDE-0062061); and – Asbestos Work Management Practice (RTIO-HSE-0138640). – Material is tested for asbestos prior to removal from the rail network. Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877) 1x priority flora species has no relevant MS 918 condition for management/protection and therefore is like to be removed during site preparation works.	Slight	Unlikely	Low	Risk pathway is low, detailed assessment is not required.
		Noise	Air (windborne)	Residential/Communities Fauna	No sensitive land use such as towns or communities in close proximity therefore potential noise impacts on communities is not anticipated. Impacts and disruption to native fauna feeding and predatory interactions.	Crush and screening is not planned for night time operation. Compliance with Environmental Regulations such as, Environmental Protection (Noise) Regulations 1997, where applicable. Application of Section 6 of the Australian Standard 2436-1981 "Guide to Noise Control on Construction, Maintenance and Demolition Sites", where applicable.	Slight	Unlikely	Low	Risk pathway is low, detailed assessment is not required.
		Light	Air	Residential/Communities Impacts on nocturnal fauna species and fauna species of	No sensitive land use such as towns or communities in close proximity therefore potential light	Crushing and screening is not planned for nighttime operation.	Slight	Unlikely	Low	Risk pathway is low, detailed assessment is not required.

Source		Potential Emission	Pathway	Potential Receptors	Potential Impacts	Proposed Controls	Consequence	Likelihood	Risk Rating	Detailed Assessment Required?
				elevated conservation significance	impacts on communities is not anticipated. Impacts and disruption to native nocturnal fauna feeding and predatory interactions.					
		Discharge of wash water or process water potentially hydrocarbon contaminated or/sediment laden	Discharge to water	Permanent surface water body Significant creeklines/waterways PDWSA Groundwater ecosystems and water quality Freshwater ecosystems and water quality	No complete pathway to permanent surface waters due to distance (PDWSA/Harding Dam/RPZ located approximately 17.5km south). Potential direct impacts to ephemeral creeks due to spills, leading to downstream impacts to freshwater ecosystems and water quality. Surface water runoff causing sedimentation impacts to ephemeral creeks Infiltration through soil to groundwater causing impacts to groundwater quality and downgradient receptors. No Station wells within 1km (inferred upgradient).	No planned discharge of water from site. Plant and stockpiling will be located 350m away from closest ephemeral drainage lines. Potentially contaminated stormwater runoff will be retained onsite via bunds and diverted into sumps for containment and evaporation. Groundwater depth is unknown at thesSite but a nearby RTIO maintenance supply bore located 0.6km north reported groundwater ranging at between 8m and 14m bgl. Diversion of clean surface water around the work area via installation of earthen bund. Compliance with: – RTIO Environmental Design Criteria - Permanent and Temporary Facilities Procedure (RTIO-AM-0032910) which includes discharge, crush and screening plants (mobile) and hydrocarbon management. – Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877) Internal procedures in place to ensure spills are prevented as much as possible. Any spills that do occur are managed using RTIO Procedures, cleaning up the spill as soon as practicable. Spill kits will be located near any potential contamination/refuelling points so that they are available for immediate use	Slight	Unlikely	Low	Risk pathway is low, detailed assessment is not required.
			Discharge to land	Terrestrial ecosystems Soil quality	Direct discharge to soil within the premises impacting soil and terrestrial ecosystems. Surface water runoff causing impacts to vegetation, soil quality and terrestrial ecosystems.	No planned discharge of land from site. Potentially contaminated stormwater runoff will be retained onsite via bunds and diverted into sumps for containment and evaporation. Groundwater depth is unknown at the Site but a nearby RTIO maintenance supply bore located 0.6km north reported groundwater ranging at between 8m and 14m bgl. Diversion of clean surface water around the work area via installation of earthen bund. Compliance with: – RTIO Environmental Design Criteria - Permanent and Temporary Facilities Procedure (RTIO-AM-0032910) which includes discharge, crush and	Minor	Possible	**Medium**	Detailed assessment provided in Section 6.

Source		Potential Emission	Pathway	Potential Receptors	Potential Impacts	Proposed Controls	Consequence	Likelihood	Risk Rating	Detailed Assessment Required?
						screening plants (mobile) and hydrocarbon management. – Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877) Internal procedures in place to ensure spills are prevented as much as possible. Any spills that do occur are managed using RTIO Procedures, cleaning up the spill as soon as practicable. Spill kits will be located near any potential contamination/refuelling points so that they are available for immediate use				
		Discharge of hydrocarbons from vehicles and plant spills, and during refuelling operations	Discharge to land	Terrestrial ecosystems Soil quality	Uncontrolled / unplanned hydrocarbon spills from burst hydraulic hose, during refuelling directly releasing to ground leading to direct soil and terrestrial ecosystem impacts (Maximum Reasonable Outcome is a spill volume of up to 200L resulting from a refuelling spill or burst hydraulic hose).	Crush & Screen plant will be required to be well maintained and leak free prior to and during operations on a RTIO site. Regular servicing and daily inspections are required to identify any potential wear and tear defects pre-failure. Crush & Screen plant will require in the form of Vehicle Pre-start Checks, Take 5, and JHA processes, which increases the chances of identify any potential defects or equipment operation concerns/failures. Rio Tinto Procedures such as: – Spill Response Procedure (RTIO-HSE-0010867). – Local Emergency Management Plan (RTIO-HSE-0012507). – Ballast Cleaning Pilbara, Standard Work Procedure, Refuelling. – Iron Ore Notification of Environmental Incidents Procedure (RTIO-HSE-0076061). – Critical Risk Management (CRM) process. – RTIO Environmental Design Criteria - Permanent and Temporary facilities (RTIO-AM-0032910) which includes discharge, crush and screening plants (mobile) and hydrocarbon management. – Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877) The refuelling service trucks are bunded. Fitted with dry brake coupler (won't allow fuel flow until it's locked in place), pressure valve regulators, over fill protection, 25,000L max fuel level. Spill kit and drip pads used during infield refuelling. Visual inspection of plant daily for leaks in accordance with Rio Tinto standards. Provision for spill response equipment during any refuelling of mobile plant and equipment on site.	Minor	Possible	**Medium**	Detailed assessment provided in Section 6.

Source		Potential Emission	Pathway	Potential Receptors	Potential Impacts	Proposed Controls	Consequence	Likelihood	Risk Rating	Detailed Assessment Required?
						Weekly inspections of mobile equipment/generator/refuelling truck tank integrity and any potential leaks/damage to hydrocarbon related infrastructure/equipment. Field-based machinery refuelling from mobile fuel trucks, drip tray used at the transfer point.				
Cat 61A Stockpiling offsite material	Ongoing stockpiling/unloading of offsite degraded rail civil material	Dust	Air (windborne)	Residential/Communities Priority fauna and habitats of elevated conservation significance Flora of elevated conservation significance PEC Buffer: Horseflat Land System Plains (P3) Areas of conservation/environmental significance Surface water or permanent waterbodies Asbestos	Increase in localised dust generated during unloading of degraded rail civil material, driving/vehicle movements on unsealed roads/surfaces, dust liftoff from stockpiles. No sensitive land use such as towns or communities in close proximity therefore potential dust impacts on communities is not anticipated. Dust impacts on surrounding priority flora/vegetation, including reduced ability for photosynthesis due to smothering. No priority fauna or habitats of elevated conservation significance recorded within or in close proximity to the site. Dust impacts to PEC buffer Horseflat Land System Plains (P3) reducing ability for photosynthesis and smothering the ecosystem. Dust impacts on Priority (P3) flora species reducing ability for photosynthesis due to smothering. No TECs within the Site or in close proximity. No significant creeklines/waterways or surface waterbodies in close proximity. No potential impacts from asbestos as material is tested for asbestos prior to removal from the rail network.	Degraded rail civil material stockpiles will be inspected regularly to ensure no elevated dust emission concerns or environmental impacts resulting from dust lift. Dust suppression via the application of crusting and stabilising agents or water on stockpiles and trafficable areas including water sprays, water trucks, control of vehicle movements/restricted speeds. During unloading of rail civil material and ongoing stockpiling dust emissions will be managed by water trucks. Progressive rehabilitation of disturbed areas no longer needed for operational purposes. No stockpiling will occur within 350m of a creekline or waterway. Any exclusion areas and areas of significance (PEC), as per RT internal ArcMap GIS system, will be specifically managed/avoided and are demarcated. Progressive rehabilitation of disturbed areas no longer needed for operational purposes. As per RT Rehabilitation Management Plan (RTIO-HSE-0058421) and Rehabilitation Handbook (RTIO-HSE-0011608). The Integrated Rail Network EMP incorporates management of fibrous material through Rio Tinto procedures: – Fibrous Minerals Management Plan (RTIO-PDE-0062061); and – Asbestos Work Management Practice (RTIO-HSE-0138640). Material is tested for asbestos prior to removal from the rail network. Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877) 1x priority flora species has no relevant MS 918 condition for management/protection and therefore is like to be removed during site preparation works.	Slight	Unlikely	Low	Risk pathway is low, detailed assessment is not required.
		Discharge of contaminates	Discharge to land	Terrestrial ecosystems Flora and fauna	Impacts on watercourses from impacted stockpile sediment runoff into drainage lines.	Implementation of Ballast Sampling and Post Renewal Material Management Plan (2024). In situ rail civil material sampling and analytical	Minor	Possible	Medium	Detailed assessment provided in Section 6.

Source		Potential Emission	Pathway	Potential Receptors	Potential Impacts	Proposed Controls	Consequence	Likelihood	Risk Rating	Detailed Assessment Required?
				Residential/Communities Fauna and flora of elevated conservation significance Areas of conservation/environmental significance Soil impacts	Stockpiling of degraded ballast/rail civil material resulting in soil impacts and impacting on terrestrial ecosystems, flora and fauna. No sensitive land use such as towns or communities in close proximity. Direct discharge to land impacting soil and terrestrial ecosystems. Surface water runoff from stockpiles causing direct impact to terrestrial and groundwater ecosystems.	analysis completion prior to ballast cleaning/removal works commencing to determine if rail civil material is suitable for stockpiling or is to be disposed of at an approved disposal location as removed from track. Decision process includes: – Undertake testing of degraded ballast in accordance with the Ballast Sampling and Disposal Management Decision Process and Post Renewal Material Management Plan – Final determination for reuse, stockpiling or landfill disposal. – Maintain a register of stockpiled degraded ballast, tracking source, quantity, test work, disposal and/or reuse locations. – Routine inspection of the stockpiles will occur bi-annually and post significant rainfall events, assessing stockpile stability and any potential environmental impacts associated with runoff, dust impacts and/or erosion. Earthen bund will prevent ingress of clean surface water runoff from into the general crush and screen and stockpiling area and egress. Earthen bunds required for the stockpile area, retaining all surface water runoff onsite. Earthen sumps to collect stockpile surface water/sediment runoff following large rain events, and disposal via evaporation. Based on the completed risk assessment for each programme of work, a liner may be required for the stockpiling area. Compliance with: – RTIO Environmental Design Criteria - Permanent and Temporary facilities (RTIO-AM-0032910) which includes discharge, crush and screening plants (mobile) and hydrocarbons. – Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877)				
			Discharge to water	Permanent surface water body Significant creeklines/waterways PDWSA Groundwater Freshwater ecosystems and water quality	No complete pathway to permanent surface waters due to distance (PDWSA/Harding Dam/RPZ located approximately 17.5km south). Potential direct impacts to ephemeral creeks due to spills, leading to downstream impacts	Implementation of Ballast Sampling and Disposal Management Decision Process flowchart and draft Post Renewal Material Management Plan. In situ rail civil material sampling and analytical analysis completion prior to ballast cleaning/removal works commencing to determine if rail civil material is suitable for stockpiling or is to be disposed of at an approved disposal location as removed from track	Slight	Unlikely	Low	Risk pathway is low, detailed assessment is not required.

Source		Potential Emission	Pathway	Potential Receptors	Potential Impacts	Proposed Controls	Consequence	Likelihood	Risk Rating	Detailed Assessment Required?
					to freshwater ecosystems and water quality. Surface water runoff causing sedimentation impacts to ephemeral creeks Infiltration through soil to groundwater causing impacts to groundwater quality and downgradient receptors. No Station wells within 1km (inferred upgradient). Potential direct impacts to ephemeral creeks due to spills, leading to downstream impacts to freshwater ecosystems and water quality. Reduction of drinking / groundwater quality as a result of impacts from ballast / civil material stockpiles. Disrupted surface water drainages.	Decision process includes: – Undertake testing of degraded ballast in accordance with the Ballast Sampling and Disposal Management Decision Process and draft Post Renewal Material Management Plan. – Comparison against Uncontaminated Fill Guidelines (DWER, 2019) and statistical evaluation. – If required, comparison against applicable Tier 1 Screening Criteria (DWER, 2021) to evaluate site data with established assessment guidelines. – If required, risk characterization of stockpile and/disposal locations based on the development of a Site Conceptual Model to determine the likelihood for complete exposure pathways and risk assessment. – Final determination for reuse, stockpiling or landfill disposal. – Maintain a register of stockpiled degraded ballast, tracking source, quantity, test work, disposal and/or reuse locations. – Routine inspection of the stockpiles will occur bi-annually and post significant rainfall events, assessing stockpile stability and any potential environmental impacts associated with runoff, dust impacts and/or erosion. Earthen bunds required for the stockpile area. Earthen sump to collect stockpile runoff following large rain events. RTIO Environmental Design Criteria - Permanent and Temporary facilities (RTIO-AM-0032910) which includes discharge, crush and screening plants (mobile) and hydrocarbons				
Non-prescribed activities	General wastes operation of the prescribed facilities	Solid / Liquid Waste	Discharge to land	Terrestrial ecosystems Soil quality	Soil / groundwater contamination. Windblown litter (amenity). Increase in feral animals.	General wastes will be managed via standard operating procedures including: – sufficient recycling and general waste collection areas will be established and labelled with the relevant waste type to facilitate the management of waste; – recyclable materials will be separated from other waste and recycled wherever possible; and – non-recyclable materials will be transported to, and disposed of, at an approved off-site facility by a licensed contractor. Rio Tinto Procedures such as: – Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)	Minor	Unlikely	Low	Risk pathway is low, detailed assessment is not required.

Source		Potential Emission	Pathway	Potential Receptors	Potential Impacts	Proposed Controls	Consequence	Likelihood	Risk Rating	Detailed Assessment Required?
						– Controlled Waste Guidelines (RTIO-HSE-0012439). – Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877) – IRN Environmental Management Plan April 2023 All rubbish generated will be removed off site and disposed of at an appropriately licenced landfill by an approved contractor.				

7 Emission Management

Rio Tinto has a Health, Safety, Environment and Quality Management System (HSEQMS) that ensures environmental controls are developed for key environmental aspects, legal compliance is maintained, and continuous improvement is achieved through a formal review process.

The Integrated Rail Network Environmental Management Plan (RTIO-0978875) and Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877) are in place, which details environmental management commitments necessary to mitigate the environmental impacts associated with these activities.

In addition, a site specific Management Plan will be developed to define the environmental controls associated with the crush and screen and stockpiling activities.

7.1 Air Emissions (not including dust)

7.1.1 Mobile Crushing and Screening

There is not expected to be significant air emissions, generated during the setup and operation of the mobile crushing and screening plant.

7.1.2 Stockpiling

There is not expected to be significant air emissions, generated during the stockpiling of material or sleepers.

7.2 Dust Emissions

7.2.1 Mobile Crushing and Screening

Dust emissions from the proposed mobile crushing and screening plants are point source emissions that will be managed through the use of an in-built dust suppression spray system. The mobile plant will arrive on site with an installed system of dust suppression sprays that will be plumbed into a site water supply. Dust from the mobile plant shall also be managed by:

- Spraying the feed stockpile with water prior to being fed into the screen if necessary;
- Use of dust suppression on stockpiles as required;
- Water carts to dampen work areas, access roads and stockpiles to minimise dust lift- off during storage and handling of material and screened material as required;
- If fitted, use of hydraulically angle-adjustable stockpiling conveyors to minimise drop heights; and
- If fitted, belt sprayers will be employed to dampen crushed material as necessary.

The site-specific Management Plan will include the requirement for regular documented inspections to be undertaken to ensure the dust suppression system is fully functional during operation.

Further detail on controls, environmental criteria and monitoring is provided in the attached IRN Environmental Management Plan and RTIO Mobile Crush & Screening Management Plan (Appendix C), it is not expected additional requirements would be required via the Works Approval.

7.2.2 Stockpiling

Dust off lift from the stockpiles will be managed by the use of water carts or other approved dust suppression agents/systems if required.

Material is sampled prior to removal from track for asbestos concentrations. No degraded ballast material with detected asbestos will be stockpiled at this facility. Material found to contain asbestos prior to removal from track will be managed as per RTIO Health and Safety and Environmental procedures.

Stockpiles shall be inspected regularly to ensure potential dust generation events and any dusting of surrounding vegetation is minimised.

7.3 Vehicle Movements

There is the potential for dust emissions from vehicle and mobile equipment movements within the Site. This will be managed by the use of water carts or dust reduction agents to dampen/bind vehicle tracks to reduce generation of dust emissions from both a safety and environmental perspective.

7.4 Noise Emissions

Given the remote location of the activities and the lack of receptors and complete pathways, the risk to the environment/communities from potential noise emissions from the mobile crushing and screening plant and stockpiling is low.

7.5 Odour Emissions

No significant odour emissions are expected to be produced from the setup or operation of the mobile crushing and screening plant. Site general waste will be managed as per RTIO Waste Management procedures and removed offsite regularly during plant operational periods.

7.6 Light Emissions

The mobile crushing and screening plant will be operated during daylight hours. There is no risk of light emissions from the mobile crushing and screening plants.

7.7 Discharge to Water

There are no planned or permitted discharges to water during setup or operation of the mobile crushing and screening plant. The plant and stockpiles will be located at least 350m from any drainage line.

7.8 Discharges to Land

There are no contaminated discharges to land expected from the setup and operation of the mobile crushing and screening plant or stockpiling activities. The proposed Prescribed Premises boundary will be earthen bunded so that any potential sediment laden water is retained within the confines of site. Clean surface water will be diverted around the work area by construction of the bund. The mobile plant shall also be situated in a suitable location such that they are located at least 350m from any drainage line. Onsite surface water runoff will be contained within the proposed collection sumps, where water will be managed via evaporation.

The risk to the environment from discharges to land from the mobile crushing and screening plant and stockpiling is considered low given the distance to any sensitive receptors and material sampling prior to removal from track and analytical results review undertaken and the significant controls to be implemented.

7.9 Hydrocarbon and Chemical Storage

The mobile crushing and screening plant will be refuelled via a mobile service truck so there is no requirement to store chemicals or hydrocarbons at the operating site. All fuel transfer points will be secondarily contained with drip drays to prevent spills and spill kits should they be required.

Any hydraulic spills from burst hydraulic hoses or minor hydrocarbon spills will be cleaned up and contaminated soil bagged for removal from site to an appropriately licensed facility. Further the prescribed premises boundary will be demarcated with a earthen bund and sumps, containing any spills.

Clean surface water will be diverted around the work area by installation of an earthen bund.

7.10 Solid/Liquid Waste

There are no routine solid or liquid waste by-products generated by the mobile crushing and screening plant during setup or operation.

All waste handling procedures will align with the approved the IRN EMP.

7.11 Flora and Fauna

While some area of Arches North has been historically cleared, some new disturbance is required for the setup of the mobile crushing and screening plant and stockpiling. However, because of the low impact nature of the proposed clearing and subsequent rehabilitation, and the small area of any proposed clearing, it is unlikely that the disturbance of any remaining native vegetation or native fauna will be significantly impacted. Access will be via an existing access track.

All clearing of native vegetation has been assessed and authorised via Ministerial Statement 918.

8 Rehabilitation and Closure

Once the crush and screening and stockpiling activities have ceased, areas that have been cleared and are no longer required for operational use will be rehabilitated.

All stockpiled materials and structures will be removed from the site as per RTIO Rehabilitation procedures.

9 Project Costs

Table 11: Project Costs Associated with the Deployment and Installation of the Mobile Crushing and Screening Plant

Project Description	Projected Cost $ AUD
Cost of works	
Supply and install	[redacted]
Crush Screen and Stockpile	
TOTAL COST	

10 References

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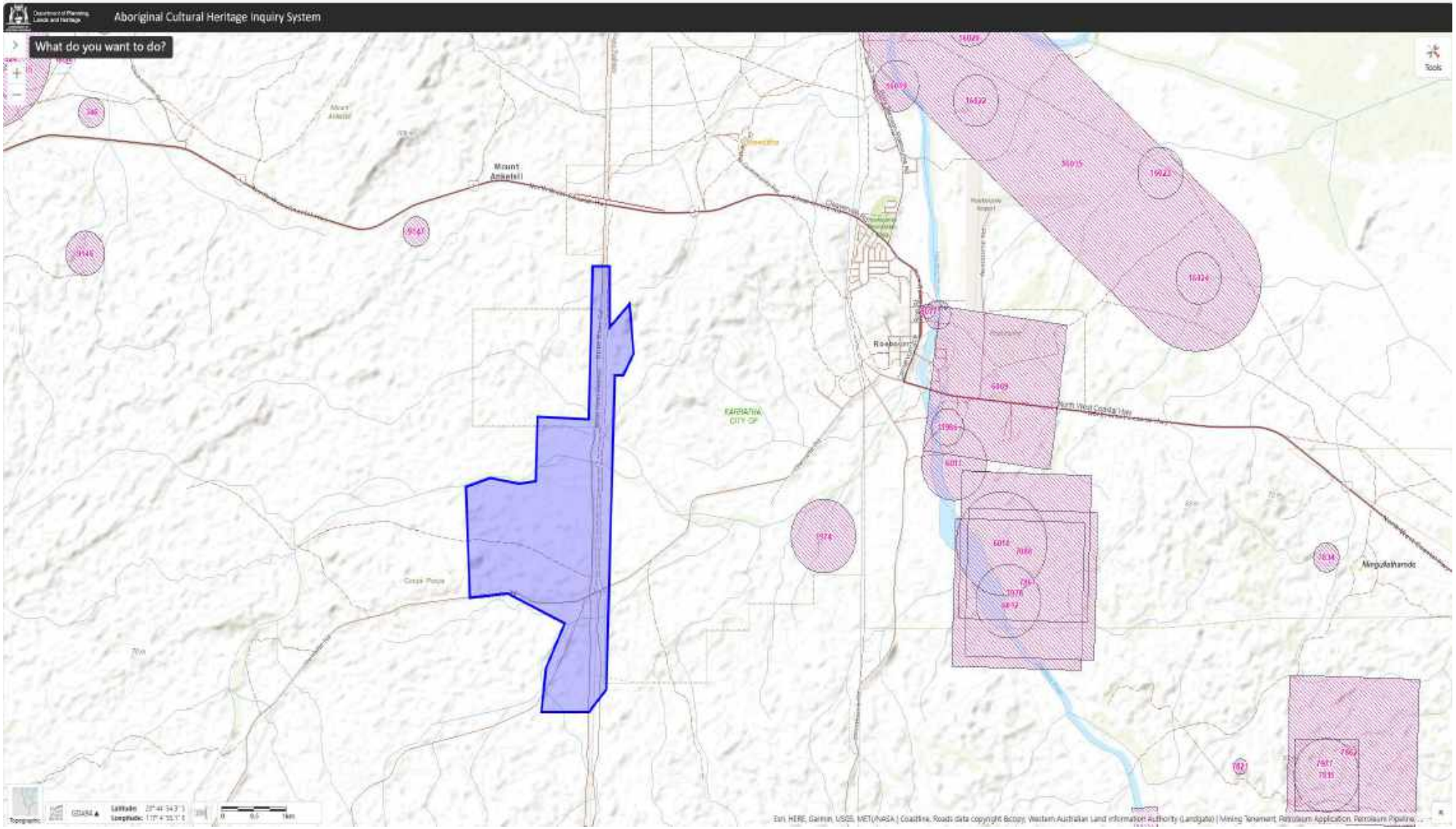
Appendix A: Aboriginal Cultural Heritage Inquiry System



Appendix B: Typical Mobile Crushing and Screening Plant

696 inclined screen

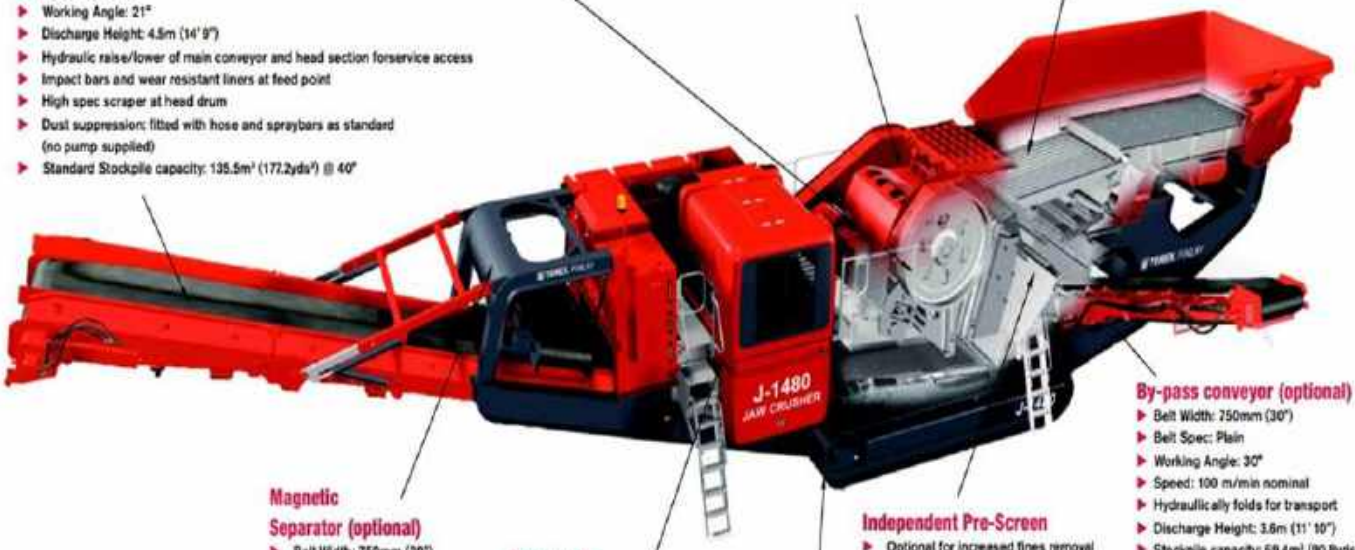
C-1545 cone crusher

Platforms
- Galvanised catwalks and ladders for full maintenance and service access
- Catwalk access on both sides of the machine with access to both sides of the powerunit and to the rear of the machine
- Compact folding for transport

Jaw Chamber
- Terex JW55 chamber single toggle jaw crusher
- Inlet width: 1415mm (55")
- Inlet gape: 820mm (32")
- Under jaw clearance: 380mm nominal
- Drive arrangement: Hydrostatic
- Maximum Closed Side Settings (CSS): 225mm (9")
- Minimum Closed Side Settings (CSS): 75mm (3") Demolition and Recycle applications. 85mm (3 1/4") Quarry applications
- Reverse action for clearing blockages
- Full hydraulic closed side setting adjust
- Standard Liner Profile: S-Tooth (18% Manganese)

Hopper and Feeder
- Hopper capacity: 10m³ (13yd³)
- Feed height: 4.67m (15' 5")
- Material: 15mm wear resistant steel
- Width at rear with standard flares: 2.88m (9' 5")
- Width at rear with standard flares and extensions: 3.76m (12' 5")
- Locking mechanism: hydraulic
- Independent Hydraulic Prescreen as standard
- Prescreen grizzly aperture: 75mm (Options 100mm / 125mm)
- Prescreen wire mesh aperture: 38mm (Other options available upon request)
- Feeder speed range: variable, 450-900 rpm
- Prescreen dims: 2.3m (7' 6") long x 1.36m (4' 6") wide
- Hopper extensions (Optional): 12m³ (15.6yd³)

Main Conveyor
- Belt Width: 1.4m (55")
- Belt Spec: Plain
- Working Angle: 21°
- Discharge Height: 4.5m (14' 9")
- Hydraulic raise/lower of main conveyor and head section forservice access
- Impact bars and wear resistant liners at feed point
- High spec scraper at head drum
- Dust suppression: fitted with hose and spraybars as standard (no pump supplied)
- Standard Stockpile capacity: 135.5m³ (177.2yds³) @ 40°



By-pass conveyor (optional)
- Belt Width: 750mm (30")
- Belt Spec: Plain
- Working Angle: 30°
- Speed: 100 m/min nominal
- Hydraulically folds for transport
- Discharge Height: 3.6m (11' 10")
- Stockpile capacity: 69.4m³ (90.8yds³) @ 40°

Magnetic Separator (optional)
- Belt Width: 750mm (30")
- Belt Spec: Cleated
- Belt Speed: Variable
- Drive: Hydraulic

Powerpack
- Tier 3 / Stage IIIA: Caterpillar C13 Engine Power: 328kW (440hp) Engine Speed: 1800 rpm
- Stage IIIA Constant Speed: Scania DC13 Engine Power: 331kW (450hp) Engine Speed: 1800 rpm
- Tier 4F / Stage IV: Scania DC13 Engine Power: 331kW (450hp) Engine Speed: 1800 rpm

Independent Pre-Screen
- Optional for increased fines removal

Undercarriage
- Shoe Width: 500mm (20")
- Sprocket Centres: 4.2m (13' 9")
- Dual speed tracking with 'soft start'
- Speed: 1.0 km/h (maximum speed)
- Gradeability: 25°

WORKING DIMENSIONS

883 heavy duty screen

The high performance Terex Finlay 883 is designed to work after a primary crusher or on it's own as a frontline tracked mobile screening machine. Applications include quarrying, mining construction and demolition debris, topsoil, recycling, sand, gravel, coal and aggregates. The plant has the capacity to process at a rate of up to 500 tonnes per hour and can be fed either by a tracked mobile crusher or an excavator.

Features:

- Aggressive screen box can accept bofor bars, speedharps woven mesh, punch plate, tines and cascade fingers.
- Modular configuration screen box with 4.8m x 1.5m (16' x 5') top deck and 3.65m x 1.5m (12' x 5') bottom deck screen.
- Screen box angle can be hydraulically adjusted to an angle between 13° to 19°.
- Screen box discharge end can be hydraulically raised 500mm to facilitate efficient and easy media access and changing.
- All stockpiling conveyors are hydraulic angle adjustable.

Transport Dimensions

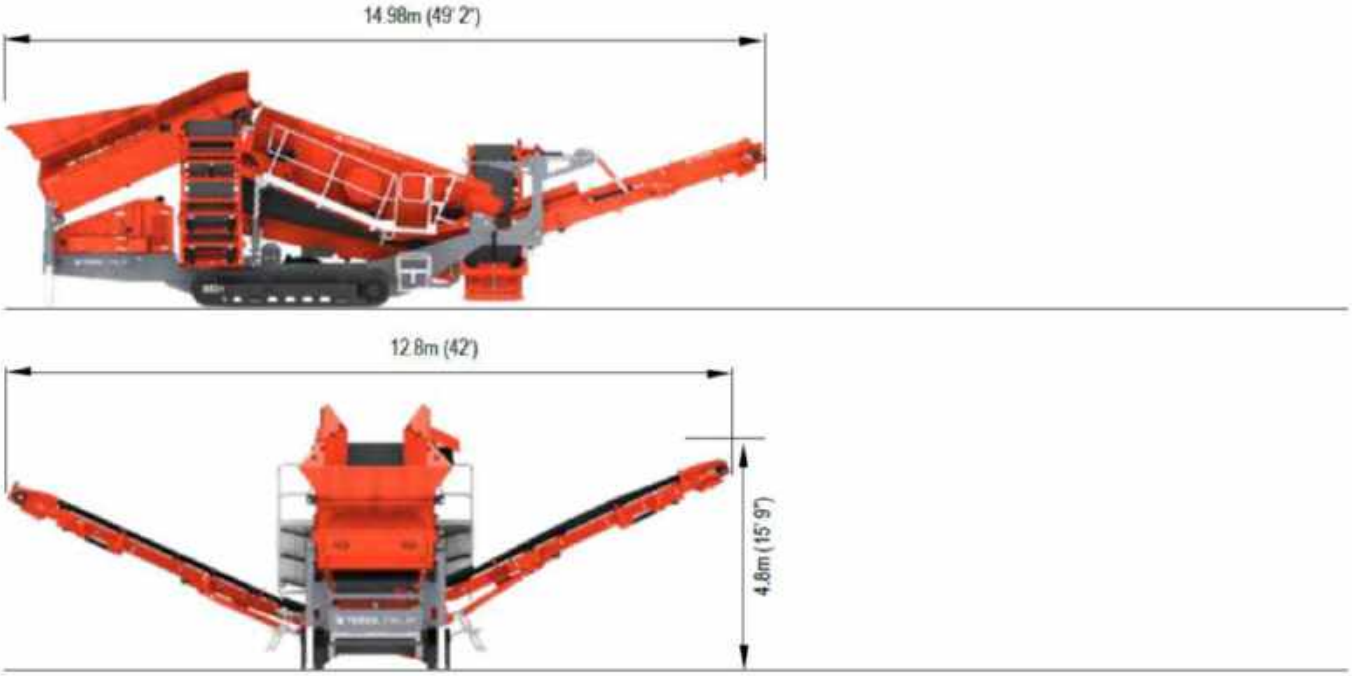
Working Dimensions

Maximum Plant Capacity:	tph**	Stph**
	500	551

**Material is based on pit run sand/gravel with bulk density 1.15T/cu.m. Screening capacity depends upon mesh sizes and relates to dry screening in optimal material conditions.

Machine Weight: 32,000Kg (70,547lbs)* *Standard Machine configuration

Working Dimensions



Appendix C: Integrated Rail Network Environmental Management Plan and RTIO Mobile Crush & Screening Management Plan

Iron Ore (WA)

Integrated Rail Network Environmental Management Plan

April 2023

RTIO-0978875
Final - Revision 1
April 2023

Document Status

Rev	Author	Reviewer/s	Date	Approved for Issue	
				To Whom	Date
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1	[redacted] / Rio Tinto		April 2023	DMIRS	April 2023

Contents

Tables

Acronyms

ALARP	As Low As Reasonably Practicable
ASS	Acid Sulphate Soils
ATP	Automatic Train Protection
CO_2	Carbon dioxide
DBCA	Department of biodiversity, Conservation and Attractions
DED	Dragging Equipment Detector
DMA	Decision Making Authorities
DWER	Department of Water and Environmental Regulation
EMP	Environmental Management Plan
EP Act	Environmental Protection Act 1986
GIS	Geographical Information System
HBD	Hot Bearing Detectors
HSEQ	Health Safety Environment and Quality
HSEQMS	Health Safety Environment and Quality Management System
IRN	Integrated Rail Network
LA Act	Land Administration Act 1997
Mining Act	Mining Act 1978
NOx	Nitrous oxides
ODS Scanners	Obstruction Detection System Scanners
OWTS	Oily Water Treatment Systems
PDWSA	Public Drinking Water Source Area
PFAS	Per- and Poly-Fluoroalkyl Substances
RNM	Rail Network Maintenance
Rail BAM	Rail Bearing Acoustic Monitoring
RNR	Rail Network Renewals
Rio Tinto	Rio Tinto Iron Ore
SDS	Safety Data Sheets
SOx	Sulfurous oxides
WRC	Western Rail Corridor
WWTP	Wastewater Treatment Plant
WQPN	Water Quality Protection Note

1 Introduction

1.1 Background

Rio Tinto Iron Ore (Rio Tinto) in conjunction with its joint venture partners, own and operate the 1979km long Integrated Rail Network (IRN), in the Pilbara region of Western Australia, to transport iron ore from its mine sites to its ports at Dampier and Cape Lambert. The IRN is primarily operated and maintained by three divisions within Rio Tinto.

Rail Operations is accountable for the planning, scheduling and operation of trains across the network. It holds the primary responsibility for integrating the rail network with the wider Iron Ore operation between mines and ports.

Rail Maintenance executes maintenance of the rail assets of rolling-stock, track and infrastructure such as the wayside signalling system. Within the scope of Rail Maintenance is the operation of condition monitoring systems and scheduling of maintenance for the assets, typically within a one-year time horizon. The Rail Network Maintenance (RNM) department completes the day-to-day maintenance of track and signalling infrastructure, including minor tamping and surface alignment. Larger track maintenance tasks are completed by the Rail Network Renewals (RNR) department, which completes large-scale activities such as ballast cleaning, sleeper and turnout replacement and re-rail activities.

Rail Engineering is responsible for providing technical engineering support across the rail network and also determines the long-term maintenance planning for the network, typically greater than a one-year time horizon. Long-term maintenance priorities are determined from a combination of condition monitoring data provided from Rail Maintenance as well as from engineering investigations to determine the optimum maintenance cycles and process.

Larger projects initiated from Rail Operations, Rail Maintenance or Rail Engineering are delivered through the support of Sustaining Capital, which provides expert project management services to all parts of Rio Tinto.

1.2 Purpose

The purpose of this IRN Environmental Management Plan (EMP) is to provide an over-arching management tool for Rio Tinto's rail operations and maintenance activities to avoid unauthorised environmental impacts. In particular, to:

- Communicate to all Rio Tinto Rail personnel, including contractors, the environmental sensitivities adjacent to the IRN and the risks associated with undertaking rail operations and maintenance activities;
- Identify the environmental management controls that must be implemented and procedures that must be followed when undertaking operations and rail maintenance activities;
- Communicate to external stakeholders, including Regulators, Traditional Owners and other interested parties, Rio Tinto's Health, Safety, Environment and Quality Management System (HSEQMS) framework and the operational controls within this framework to reduce environmental risks associated with undertaking rail operations and maintenance activities to As Low As Reasonably Practicable (ALARP); and
- Provide supporting information to Decision Making Authorities (DMAs) when seeking regulatory approvals in relation to rail operations and maintenance activities.

All personnel working on the IRN must adhere to this EMP to ensure that impacts on the environment are managed in accordance with Rio Tinto's legal obligations and HSEQMS Policy commitments.

1.3 Scope

This EMP applies to:

- All existing rail mainlines that comprise the IRN across all *Land Administration Act 1997* (LA Act) and *Mining Act 1978* (Mining Act) tenure and Special Rail Licences issued pursuant to the respective State Agreements.
- All rail infrastructure that either directly forms part of the rail lines (e.g. tracks, sidings, turn-outs, bridges and so on) or is used to support rail operations and maintenance activities (e.g. access roads, borrow pits, rail camps, rail yards, laydown areas and so on).
- Rail operations i.e. the transport of ore from the mines and the ports; transport of bulk diesel to the mines; and transport of other materials to support Rio Tinto's Pilbara operations.
- Rail maintenance and renewal activities undertaken across the IRN, including actions that interface with future rehabilitation and closure (e.g. topsoil stockpiling and management).
- Other activities undertaken to support the operation and maintenance of the IRN.
- Environmental sensitivities and risks and management controls.
- All Rio Tinto Rail personnel, including contractors, undertaking rail operations, maintenance and related support activities.

The scope of this EMP excludes:

- Rail terminals located at the mines and the ports; and
- Construction of future rail lines (including duplications of existing rail lines).

2 Summary of environmental risks

The *Iron Ore – Management System Standard Element 3 – Hazard Identification and Risk Management* (RTIO-HSE-0062207) provides the framework to identify and manage HSEQ risks. Rio Tinto has created an IRN HSEQ Risk Register, based on a Level 2 (formal workshop-based) risk assessment, that assesses environmental, heritage and community risks associated with operating and maintaining the IRN. A summary of the environmental risks associated with Rio Tinto's existing IRN operations and maintenance activities in presented in Table 1.

Table 1 Summary of IRN environmental risks

Hazard	Risk pathway(s)	Key receptor(s)
Acid Sulfate Soils (ASS)	Exposure of potential ASS during ground disturbance, drilling or excavations in coastal areas	• Flora, soil quality, surface water quality
Air and Greenhouse Gas Emissions	Combustion emissions from rail locomotives, vehicles and machinery contributing to atmospheric NOx/SOx and CO_2 concentrations	• Air quality • Flora, fauna and ecosystems
Clearing / Land Disturbance	Unauthorised ground disturbance (clearing beyond permitted areas)	• Millstream-Chichester National Park • Karijini National Park • Threatened and Priority Ecological Communities • Threatened or Priority Flora • Threatened or Priority Fauna • Aboriginal heritage sites
Degraded ballast / civil material	Poor storage and management of degraded ballast leading to discharge of ballast sediment or contaminated leachate	• Surface water quality, groundwater quality, soil quality • Millstream-Chichester National Park • Karijini National Park • Harding Dam Catchment Area • Millstream Water Reserve • Bungaroo Water Reserve • Paraburdoo Water Reserve • Marandoo Water Reserve
Dust	Dust emissions generated during: • Ore transport via rail; • Rail maintenance works • Vehicle and machinery movements	• Millstream-Chichester National Park • Karijini National Park • Threatened and Priority Ecological Communities • Threatened or Priority Flora • Threatened or Priority Fauna • Local communities • Rio Tinto employees and contractors

Hazard	Risk pathway(s)	Key receptor(s)
Fibrous materials	Liberation of fibrous materials during excavation e.g. of borrow material or railway cuttings, leading to airborne fibres hazardous to local communities	• Local communities • Soil quality • Rio Tinto employees and contractors
Hazardous wastes	Inadequate on-site management and / or disposal of: • waste oil; • oily rags; • empty hydrocarbon drums; • washdown bay wastewater and sediments Poor storage and management of used creosote-treated wooden sleepers for extended periods leading to environmental contamination Spill or leaks from the storage and handling of used batteries leading to environmental contamination	• Soil quality • Surface water • Groundwater quality
Hydrocarbons	Uncontrolled / unplanned release of hydrocarbons from: • Bulk transport of diesel via rail to mines; • Stationary bulk fuel storages; • Vehicles, fixed and mobile plant; • Refuelling	• Surface water, groundwater, soil quality • Millstream-Chichester National Park • Karijini National Park • Threatened and Priority Ecological Communities • Threatened or Priority Flora • Harding Dam Catchment Area • Millstream Water Reserve • Bungaroo Water Reserve • Paraburdoo Water Reserve • Marandoo Water Reserve
Infrastructure	Alteration of natural surface water flows as a result of the construction / installation of infrastructure leading to erosion, inundation or sedimentation	• Soil (erosion) • Surface water drainages (erosion or sedimentation) • Vegetation and flora (erosion or inundation)
Light	Light emissions necessary for the safe operation and maintenance of the railway network leading to disturbance of wildlife or attraction of feral fauna	• Native fauna • Feral fauna • Local communities
Noise	Noise and vibration emitted near noise sensitive locations during rail transport operations or maintenance activities	• Local communities • Noise-sensitive fauna (e.g. Pilbara Leaf-nosed Bats)
Rehabilitation	Inadequate progressive rehabilitation of no longer operational (disturbed) land (e.g. used borrow pits) leading to weed infestations, erosion or poor rehabilitation outcomes	• Post-rehabilitation vegetation and flora assemblages

Hazard	Risk pathway(s)	Key receptor(s)
Sewerage wastes	Sewage spills leading to environmental contamination	• Harding Dam Catchment Area • Millstream Water Reserve • Bungaroo Water Reserve • Paraburdoo Water Reserve • Marandoo Water Reserve
	Release of treated wastewater to irrigation field leading to excessive nutrient loadings to soil and potentially groundwater	• Soil quality • Groundwater quality
Topsoil / subsoil stripping and stockpiling	Inadequate collection or storage and / or inappropriate use of soil resources leading to poor rehabilitation outcomes	• Post-rehabilitation vegetation and flora assemblages
Trenching / excavations	Trenching and excavations leading to injury or death of native fauna	• Native fauna
Vehicles	Vehicle interactions with wildlife leading to injury or death of native fauna	• Native fauna
Wastes (scrap metal, wood, carboard, general rubbish)	Inadequate on-site management and / or disposal of non-mineral waste leading to contamination of the environment	• Soil quality • Surface water quality • Native Fauna • Feral fauna
Water storage	Uncontrolled / unplanned release of large volumes of freshwater from pipelines, water storage tanks or turkey's nest dams resulting in overland flow, erosion and inundation of native vegetation	• Soil • Vegetation and flora
Weeds	Introduction or spread of weeds from: • Ground disturbance during track maintenance Light vehicle and machinery movements • works • Use of borrow material from pits containing weeds	• Vegetation and flora • Millstream-Chichester National Park • Karijini National Park • Threatened and Priority Ecological Communities • Threatened or Priority Flora • Threatened or Priority Fauna
Wildfire	Fires started by: • hot works (e.g. rail grinding); • rail or road vehicle ignition sources, or • discarded cigarette butts	• Flora and fauna • Millstream-Chichester National Park • Karijini National Park • Threatened and Priority Ecological Communities • Threatened or Priority Flora • Threatened or Priority Fauna

3 Environmental operational controls

3.1 Clearing / ground disturbance

Objectives:

(a) Minimise clearing / ground disturbance;
(b) Comply with all issued approval conditions within Approval Request Permits, Clearing Permits and Ministerial Statements, ensuring that ground disturbance complies with relevant legal provisions;
(c) Successfully remove, store, manage and reuse cleared vegetation, topsoil and subsoil resources for quality rehabilitation; and
(d) Ensure clearing and rehabilitation data is collected and reported in accordance with internal and external requirements.

Rio Tinto's management actions to control the impacts of clearing and ground disturbance are presented in Table 2.

Table 2 Clearing / ground disturbance management

Action	Responsibility	References
Pre-Works		
All personnel involved in clearing / ground disturbance shall complete Land Clearing General Awareness induction prior to undertaking works.	General Manager/Manager	Land Disturbance Work Practice (RTIO-HSE-0123835)
Prior to ground disturbance activities, an Approvals Permit must be obtained.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656) Land Disturbance Work Practice (RTIO-HSE-0123835)
Prior to ground disturbance activities, a Clearing Permit must be obtained.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835)
Ground disturbance activities shall be planned so as to: • Avoid Priority/Threatened Flora/Fauna and their associated habitats and heritage sites, where possible. • Minimise disturbance by using existing tracks and disturbed areas, where available. • Avoid disturbance of creek crossings, where practicable.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656) Land Disturbance Work Practice (RTIO-HSE-0123835) Clearing Permit/Sheet Guidance Note (RTIO-HSE-0147850) Clearing Sheet Template (RTIO-HSE-0147848) Survey Management of Land Clearing Work Practice (RTIO-HSE-0149120) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
The requirements of the Land Disturbance Work Practice (RTIO-HSE-0123835) are communicated to the Supervisor and mobile	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835)

Action	Responsibility	References
equipment Operator undertaking the work.		
All land disturbance activity areas shall be surveyed and pegged in accordance with the Survey Management of Land Clearing Work Practice (RTIO-HSE-0149120).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835) Survey Management of Land Clearing Work Practice (RTIO-HSE-0149120)
Critical boundaries identified on the Land Clearing Permit shall be walked by the Supervisor and the Operator prior to the commencement of ground disturbing works.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835)
Ground disturbance activities in the vicinity of Aboriginal heritage sites shall be carried out in accordance with the Heritage Delineation Procedure (RTIO-HSE-0097223).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Heritage Delineation Procedure (RTIO-HSE-0097223) Refer to Section 3.3
Emergency clearing activities (e.g. for fire, flood protection) must follow the Approvals Coordination Emergency Procedure.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel/ Site Environmental Advisor	Emergency Approvals Permit Procedure (RTIO-CR-0001029)
During Works		
Critical boundaries identified on the Land Clearing Permit shall only be disturbed during daylight hours, using GPS and in the presence of the Supervisor.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835)
Sensitive fauna habitat areas requiring protection from light, noise and vibration shall be demarcated as exclusion zones to protect conservation significant fauna. The use of artificial light during night works will be planned and managed in the following ways: • Only illuminate work areas. • Minimise light overspill. • Turn off lights when not required. • Lights to be kept close to the ground whilst still allowing for works to be undertaken safely. • Lights are operating at the required intensity. • Not illuminating habitat that has been identified as being sensitive outside of work areas.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656) Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)

Action	Responsibility	References
Vegetation, topsoil and subsoil shall be recovered, stockpiled and managed in accordance with the Soil Resource Management Work Practice (RTIO-HSE-0011596).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Soil Resource Management Work Practice (RTIO-HSE-0011596) Refer to Section 3.2
Post Works		
Land disturbance shall be inspected for conformance with the Land Clearing Permit.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835)
Clearing or ground disturbance that beyond the boundary authorised under the Clearing Permit shall be reported as an incident in Prospect.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)
Land disturbance shall be surveyed and reconciled with the applicable Approval Permit and Clearing Permit. Areas that are to remain post works which require external artificial lighting will be of the form that is motion sensitive or of a low intensity unless it needs to be of another type to meet the requirements of a written Act or Law.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835) Clearing Permit/Sheet Guidance Note (RTIO-HSE-0147850) Disturbance and Rehabilitation Data Acquisition and Reporting Work Practice (RTIO-HSE-0059592)

3.2 Topsoil and subsoil

Objectives:

a) To recover and stockpile topsoil and subsoil during clearing / ground disturbance and maintain its availability for use in land rehabilitation.

Rio Tinto's management actions to manage topsoil and subsoil recovered and stockpiled during clearing and ground disturbance are presented in Table 3.

Table 3 Topsoil and subsoil management

Action	Responsibility	References
Pre-Works		
Topsoil and subsoil recovery shall be planned at the beginning of all activities involving ground disturbance and documented through the completion of a Land Clearing Permit.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Land Disturbance Work Practice (RTIO-HSE-0123835) Clearing Permit/Sheet Guidance Note (RTIO-HSE-0147850) Soil Resource Management Work Practice (RTIO-HSE-0011596)

Action	Responsibility	References
Topsoil and subsoil stockpile locations shall be flat, clear of drainage lines or areas prone to flooding, and appropriately sited to minimise erosion. If deemed necessary, bunding, sediment fencing or other erosion management measures may be installed to capture sediment / stockpiled materials during and post intense rainfall events.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Soil Resource Management Work Practice (RTIO-HSE-0011596)
All areas to be cleared shall be assessed for weeds. Topsoil and subsoil from weed infested areas shall be stockpiled separately from weed free topsoil and subsoil.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Soil Resource Management Work Practice (RTIO-HSE-0011596)
During Works		
Topsoil and subsoil shall be recovered and stockpiled according to the specifications stipulated in the Soil Resource Management Work Practice (RTIO-HSE-0011596).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Soil Resource Management Work Practice (RTIO-HSE-0011596)
Vegetation, topsoil and subsoil shall be recovered and stockpiled separately.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Soil Resource Management Work Practice (RTIO-HSE-0011596)
All soil to be removed during the installation of buried infrastructure (e.g. Fibre Optic Cable) shall be stored in appropriate zones (topsoil and subsoil) and directly returned in correct order over the buried infrastructure.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Soil Resource Management Work Practice (RTIO-HSE-0011596)
Post Works		
Topsoil and subsoil stockpiles shall be actively monitored for weeds and erosion, following the Soil Stockpile Inspection Procedure.	Site Environmental Advisor/ Rehabilitation and Closure Team	Soil Resource Management Work Practice (RTIO-HSE-0011596): Appendix 3 – Soil Stockpile Inspection

3.3 Heritage

Objectives:

a) Avoid unauthorised disturbance to heritage sites; and
b) Maintain Traditional Owner access to heritage sites throughout IRN.

Rio Tinto's management actions to control impacts on heritage sites (in addition to the clearing and ground disturbance controls outlined in Section 3.1) are presented in Table 4.

Table 4 Heritage management

Action	Responsibility	References
Pre-Works		

Action	Responsibility	References
All personnel involved in clearing / ground disturbance shall complete Heritage Awareness and Cultural Awareness training prior to undertaking works.	General Manager/Manager	Iron Ore Management System Standard – Element 6 – Training, Competency and Awareness (RTIO-HSE-0084278)
A risk assessment shall be carried out at the beginning of a delineation program.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Heritage Delineation Procedure (RTIO-HSE-0097223) Iron Ore Management System Standard – Element 3 – Hazard Identification and Risk Management
Site-specific requirements for heritage delineation shall be determined and communicated to personnel undertaking the works.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Heritage Delineation Procedure (RTIO-HSE-0097223)
Heritage delineation requirements shall be installed prior to commencing ground disturbing activities.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Heritage Delineation Procedure (RTIO-HSE-0097223)
Where appropriate, the installation of heritage delineation will be monitored by the Heritage team or Traditional Owner representatives.	Heritage Team	Heritage Delineation Procedure (RTIO-HSE-0097223)
During Works		
Where identification of possible cultural material is recognised, the works shall be stopped immediately, and the relevant Supervisor notified immediately. The Heritage team shall also be notified immediately and consulted for confirmation of cultural material.	Mobile Equipment Operators Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Heritage Delineation Procedure (RTIO-HSE-0097223) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)
Unauthorised disturbance of an Aboriginal heritage site shall be reported to the Heritage Team immediately as an incident and works will be stopped until further instruction.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Heritage Delineation Procedure (RTIO-HSE-0097223) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)
Post Works		
Temporary heritage delineation will be removed in accordance with AR conditions, where applicable.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Heritage Delineation Procedure (RTIO-HSE-0097223)

3.4 Hydrocarbons and hazardous materials

Objectives:

a) To ensure that hydrocarbons and hazardous materials are transported, stored and handled correctly in order to prevent contamination of soils, surface water and groundwater; and
b) Comply with applicable licenses and permits.

Rio Tinto's management actions to control impacts associated with the transport, storage and handling of hydrocarbons and hazardous materials are presented in Table 5.

Table 5 Hydrocarbons and hazardous materials management

Action	Responsibility	References
Pre-Works		
Facilities for the transport, storage and handling of hydrocarbons and hazardous materials shall meet the requirements of: • Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). • WQPN 56 – Tanks for fuel and chemical storage near sensitive water resources. • WQPN 65 – Toxic and hazardous substances.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2018) WQPN 56 – Tanks for fuel and chemical storage near sensitive water resources; and DWER (2015) WQPN 65 – Toxic and hazardous substances
Dangerous goods licenses shall be obtained, where required, and copies held on site	Site Environmental Advisor	Regulatory Approvals User Guide (RTIO-CR-0009656) Iron Ore Management System Standard – Element 15 – Data and Records Management (RTIO-HSE-0197649)
Hazardous materials shall be pre-approved by Rio Tinto prior to being stored and used on site. A Hazardous Materials Register shall be maintained of all hazardous materials approved for use.	Site Environmental Advisor	Hazardous Substances Work Practice (RTIO-HSE-0121452)
Hazardous materials Safety Data Sheets (SDSs) shall be available at all locations where hazardous materials are stored and used.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Hazardous Substances Work Practice (RTIO-HSE-0121452)
During Works		
Hazardous materials inventory and storage areas shall be audited through routine workplace inspections and targeted audits.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Hazardous Substances Work Practice (RTIO-HSE-0121452)

Action	Responsibility	References
Prevention and mitigation of hydrocarbon spills from bulk rail transport shall include: • Train and rail line condition and safety monitoring i.e. HBD, ATP, DED, Rail BAM (acoustic monitoring), Auto Roll-By, ODS scanners, Broken rail detectors, Stream flow detectors. • Procedures and speed limits implemented when high water is detected on track. • Inspections and testing of fuel rail cars at statutory intervals. • Spill response procedures.	Rail Maintenance General Manager/ Rail Operations General Manager/ Rail Engineering Manager	Rio Tinto Rail operational procedures relating to train and rail line safety and integrity monitoring (various) Emergency Response Plan (RTIO-HSE-0304308) Spill Response Procedure (RTIO-HSE-0010867) Harding Dam Emergency Spill Response Procedure (RTIO-HSE-0196930)
Prevention and mitigation of hydrocarbon spills from rail vehicles and mobile plant and equipment shall include: • Planned vehicle maintenance at designated workshops. • Pre-start vehicle, plant and machinery inspections. • Use of self-bunded mobile plant. • Spill response procedures.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Emergency Response Plan (RTIO-HSE-0304308) Spill Response Procedure (RTIO-HSE-0010867). Harding Dam Emergency Spill Response Procedure (RTIO-HSE-0196930)
Refuelling shall be attended at all times. Where mobile refuelling is conducted: • 'Snap on – fast fill', auto-shut-off nozzles, dry-break couplings or approved equivalent, and drip trays shall be used. • Spill response equipment shall be available at fuel storage and refuelling areas. • Refuelling shall not occur within 30m of a watercourse.	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943)
Spill response shall be carried out in accordance with the Rio Tinto: • Spill Response Work Practice (RTIO-HSE-0010867). • Harding Dam Emergency Spill Response Procedure (RTIO-HSE-0196930) (where applicable).	Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Approval Request Coordinator	Spill Response Procedure (RTIO-HSE-0010867). Emergency Response Plan (RTIO-HSE-0304308) Harding Dam Emergency Spill Response Procedure (RTIO-HSE-0196930)

Action	Responsibility	References
Spills shall be reported in accordance with: • Rio Tinto Notification of Environmental Incidents Procedure (RTIO-HSE-0076061). • DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Spill Response Procedure (RTIO-HSE-0010867). Harding Dam Spill Procedure (RTIO-HSE-0196930) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan
Post Works		
Spills and potentially contaminating activities to be recorded in the Potentially Contaminated Sites Register	Site Environmental Advisor	Potentially Contaminated Sites Register (RTIO-HSE-0109618)

3.5 Wastes

Objectives:

a) To ensure that waste materials are transported, stored and handled correctly in order to prevent contamination of soils, surface water and groundwater; and
b) Comply with applicable licenses and permits.

Rio Tinto's management actions to manage wastes are presented in Table 6.

Table 6 Waste management

Action	Responsibility	References
Pre-Works		
All wastes generated through IRN operations and maintenance shall be managed in accordance with the: • Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578). • Non-Mineral Waste Management Work Practice (RTIO-HSE-0010849). • Controlled Waste Guidelines (RTIO-HSE-0012439) (where applicable)	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Environmental Advisor/ Site Personnel	Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578) Non-Mineral Waste Management Work Practice (RTIO-HSE-0010849) Controlled Waste Guidelines (RTIO-HSE-0012439)
Facilities for the temporary storage of maintenance wastes shall meet the requirements of the Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910).	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Environmental Advisor	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
No landfills requiring licensing or registration under the EP Act shall be constructed along the IRN.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Environmental Advisor	Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578) Controlled Waste Guidelines (RTIO-HSE-0012439)
During Works		
Wastes generated during maintenance works shall be segregated at source, stored in dedicated storage bins / facilities and disposed of to a licensed facility regularly to prevent loss to the environment.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Environmental Advisor/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578) Non-Mineral Waste Management Work Practice (RTIO-HSE-0010849)
Areas where wastes are stored shall be inspected weekly to enforce appropriate housekeeping.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	Non-Mineral Waste Management Work Practice (RTIO-HSE-0010849)

Action	Responsibility	References
Controlled wastes shall be transported offsite by a licensed controlled waste contractor and disposed of at a licensed facility.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578) Controlled Waste Guidelines (RTIO-HSE-0012439) DWER (2018) Controlled waste category list
Wastes released to the environment or not stored in designated areas shall be reported as an incident in Prospect.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)
Records of waste stream volumes and disposal shall be maintained.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Environmental Advisor	Non-Mineral Waste Management Work Practice (RTIO-HSE-0010849) Controlled Waste Guidelines (RTIO-HSE-0012439) Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)
Post Works		
Upon completion of maintenance works, the work site will be inspected to ensure it has been left in an acceptable state and there is no increased risk of environmental contamination.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Standard Work Procedure. Rail Network. Clean Up Site (RTIO-LO-0099447) Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943)
Spills and potentially contaminating activities to be recorded in the Potentially Contaminated Sites Register (RTIO-HSE-0109618).	Site Environmental Advisor	Potentially Contaminated Sites Register (RTIO-HSE-0109618)

3.6 Fire prevention and management

Objectives:

a) Minimise the potential for rail operations and maintenance activities to cause fires.

Rio Tinto's management actions to prevent the occurrence of fires in relation to its rail operations and maintenance activities are presented in Table 7.

Table 7 Fire prevention and management

Action	Responsibility	References
Pre-Works		
Hot works shall be carried out under a Hot Works Permit System. A fire risk assessment shall be carried out prior to the commencement of hot works in accordance with the Hot Work Safety Work Practice (RTIO-HSE-0049936).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Hot Work Safety Work Practice (RTIO-HSE-0049936) Fire Risk Assessment - Mainline Rail Grinding Standard Work Procedure. Rail Network. Profile Grind Weld (RTIO-LO-0100292) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Vegetation spraying or management shall be carried out periodically on the formation, embankment and immediately adjacent to track to reduce the fuel load.	Site Environmental Advisor /Rail Operations Superintendent/ Rail Network Maintenance Superintendent/ Rail Earthworks Superintendent	Weed Management Strategy (RTIO-HSE-0143151) Railways Division Weed Action Plan (RTIO-SE-0151581)
During Works		
The lighting of unauthorised fires shall be prohibited.	Superintendent /Supervisor/ Project Manager	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Fire management controls to be implemented shall include: • Daily review of fire risk. • Fire tender machine works in conjunction with the rail grinder. • A spotter shall be present during hot works. • Parking on dense vegetation to be avoided. • Vehicles shall be checked regularly for build-up of trapped vegetation. • All light vehicles/ maintenance vehicles/ on-track maintenance machinery shall carry an appropriate working fire extinguisher and fire-fighting equipment as required. Mobile equipment shall be fitted with both fire extinguishers and/or fire suppression.	Superintendent/ Supervisor/Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Hot Work Safety Work Practice (RTIO-HSE-0049936) Fire Risk Assessment - Mainline Rail Grinding Fire Risk Reduction with the Rail Grinder under Normal Operation (RTIO-LO-0002082) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)

Action	Responsibility	References
• All flammable storage areas shall have appropriate and adequate fire suppression equipment available.		
Refuelling of vehicles and equipment shall be conducted within designated refuelling areas or appropriately cleared areas.	Superintendent/ Supervisor/ Project Manager	
Smoking shall only be permitted in designated, cleared smoking areas only. Cigarette butts must be extinguished and disposed into flame resistant sealed containers and must not be thrown onto the ground.	Superintendent/ Supervisor/ Project Manager	
On days where the declared fire danger rating is High or Extreme, prestart meetings must discuss bushfire hazard and suppression management strategies.	Superintendent/ Supervisor/ Project Manager/ Site Personnel	
Without endangering personnel/equipment or undertaking unauthorised clearing, accidental scrub fires shall be extinguished by utilising appropriate fire extinguishers, water cannons, water tenders and/ or earthmoving equipment, depending on the scale of the blaze and risk to existing infrastructure.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Emergency Approval Permit Procedure (RTIO-CR-0001029)
Firefighting foams containing per- and poly-fluoroalkyl substances (PFAS) are not to be used anywhere on the IRN.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	
Out-of-control bush fires resulting from Rio Tinto's activities shall be reported to the relevant shire authority and DFES, as per the Emergency Response Plan (RTIO-HSE-0304308).	Superintendent/ Supervisor/ Project Manager	Emergency Response Plan (RTIO-HSE-0304308)
Post Works		
Work areas shall be checked to ensure that no potential ignition sources or smouldering flammable material remains that could result in a fire.	Superintendent/ Supervisor/ Project Manager/ Site Personnel	Fire Risk Assessment - Mainline Rail Grinding

3.7 Working in National Parks and other areas of conservation significance

Objectives:

Manage IRN operations and maintenance activities to minimise environmental impacts when working in:

a) Areas reserved or protected for nature conservation, such as national parks, nature reserves and conservation parks;
b) Environmentally sensitive areas declared under section 51B of the *Environmental Protection Act 1986* (EP Act); and
c) Areas designated as proposed conservation reserves/areas.

Rio Tinto's additional management actions to control impacts when working in areas of conservation significance are presented in Table 8.

Table 8 Management of works in areas of conservation significance

Action	Responsibility	References
Project notification and engagement		
The Department of Biodiversity, Conservation and Attractions (DBCA) shall be notified at least 7 days prior to undertaking works in conservation significant areas.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Social Performance and Communities team	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
During works, Rio Tinto shall facilitate site inspections by the DBCA, upon request.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Social Performance and Communities team	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Upon completion of works in conservation significant areas, a Close-Out Report shall be provided to the DBCA.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Social Performance and Communities team	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Clearing / ground disturbance		
Ground disturbance activities shall be planned so as to: • Avoid Priority/Threatened Flora/Fauna and their associated habitats and heritage sites, where possible. • Minimise disturbance by using existing tracks and disturbed areas, where available. • Avoid disturbance of creek crossings, where practicable.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656) Land Disturbance Work Practice (RTIO-HSE-0123835) Clearing Permit/Sheet Guidance Note (RTIO-HSE-0147850) Clearing Sheet Template (RTIO-HSE-0147848) Survey Management of Land Clearing Work Practice (RTIO-HSE-0149120) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)

Action	Responsibility	References
Prior to undertaking ground disturbance, the Earthworks Supervisor shall provide a prestart briefing to the equipment operators to emphasise the importance of conforming to specified areas of disturbance and compliance with the Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0296537).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
During earthworks, the Earthworks Supervisor shall regularly inspect the work site to ensure that clearing / ground disturbance is being conducted in accordance with applicable internal permits and in accordance with the Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Hydrocarbon and chemical management		
Fuel storage facilities shall be lined and bunded, and all bunding must comply with Australian Standard 1940-2017 “The Storage and Handling of Flammable and Combustible Liquids”.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Australian Standard 1940-2017 The Storage and Handling of Flammable and Combustible Liquids Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Vehicles shall be refuelled outside of conservation significant areas, where practicable Refuelling shall not occur within drainage lines or within high water marks of Public Drinking Water Source Areas (PDWSA).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653) DWER (2015) Water Quality Protection Notice 65: Toxic and hazardous substances
Chemicals shall be stored as per requirements of safety data sheets and all liquid chemicals shall be bunded.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653) Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Vehicles shall be serviced outside of conservation significant areas at designated facilities, where practicable.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)

Action	Responsibility	References
Wash down of mobile equipment shall be conducted outside of conservation significant areas at designated wash down facilities.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Spills shall be managed in accordance with Rio Tinto spill response procedures.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Spill Response Procedure (RTIO-HSE-0010867) Harding Dam Emergency Spill Response Procedure (RTIO-HSE-0196930) Emergency Response Plan (RTIO-HSE-0304308)
Spills shall be reported as an incident in accordance with: • Rio Tinto Notification of Environmental Incidents Procedure (RTIO-HSE-0076061). • DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Spill Response Procedure (RTIO-HSE-0010867). Harding Dam Spill Procedure (RTIO-HSE-0196930) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan
Waste management		
Wastes shall be removed from work areas and disposed of at appropriately licensed facilities.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653) Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578) Non-Mineral Waste Management Work Practice (RTIO-HSE-0010849)
Weed management		
All earthmoving and mobile construction equipment shall be inspected for weeds prior to mobilisation to site in accordance with the Rio Tinto Equipment Hygiene Inspections Procedure (RTIO-HSE- 0036005).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Equipment Hygiene Inspections Procedure (RTIO-HSE- 0036005) Equipment Hygiene Inspection Certificate (Appendix 1 of the Procedure) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)

Action	Responsibility	References
Weed hygiene inspections will be completed for equipment entering the work area, and when moving from a weed infested location within the work area. Actions arising from weed hygiene inspections shall be implemented prior to the equipment gaining access to or leaving the work area.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Equipment Hygiene Inspections Procedure (RTIO-HSE- 0036005) Equipment Hygiene Inspection Certificate (Appendix 1 of the Procedure) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Where an area is infested with weeds, ground engaging equipment/ mobile maintenance machines/ mobile equipment (e.g. front-end loaders, graders, track equipment and out riggers) shall be washed down. Hygiene wash down facilities shall be designed to prevent run off to the surrounding environment.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Equipment Hygiene Inspections Procedure (RTIO-HSE- 0036005) Equipment Hygiene Inspection Certificate (Appendix 1 of the Procedure) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
If new weeds are accidentally introduced through clearing activities, then weed spraying/removal will be undertaken. DBCA shall be informed of any new weed species, or spread of existing weed species.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Social Performance and Communities team/ Site Environmental Advisor	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Weed Management Strategy (RTIO-HSE-0143151) Railways Division Weed Action Plan (RTIO-SE-0151581)
Weed infestations shall be internally reported to the Site Environmental Advisor, demarcated and recorded in the Rio Tinto Geographical Information System (GIS) database.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Social Performance and Communities team/ Site Environmental Advisor	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Weed Management Strategy (RTIO-HSE-0143151) Railways Division Weed Action Plan (RTIO-SE-0151581) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)
All newly disturbed areas within areas of conservation significance shall be inspected in the Rio Tinto annual IRN weed spraying program.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Social Performance and Communities team/ Site Environmental Advisor	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Weed Management Strategy (RTIO-HSE-0143151) Railways Division Weed Action Plan (RTIO-SE-0151581)
Rio Tinto shall hold a biannual, on-site meeting with DBCA regarding weed management.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Social Performance and Communities team/ Site Environmental Advisor	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Weed Management Strategy (RTIO-HSE-0143151)

Action	Responsibility	References
		Railways Division Weed Action Plan (RTIO-SE-0151581)
Fire risk management		
Hot works shall be carried out under a Hot Works Permit System. A fire risk assessment shall be carried out prior to the commencement of hot works in accordance with the Hot Work Safety Work Practice (RTIO-HSE-0049936).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/	Hot Work Safety Work Practice (RTIO-HSE-0049936) Fire Risk Assessment - Mainline Rail Grinding Standard Work Procedure. Rail Network. Profile Grind Weld (RTIO-LO-0100292) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Fire management controls to be implemented shall include: • Daily review of fire risk. • Fire tender machine works in conjunction with the rail grinder. • A spotter shall be present during hot works. • Parking on dense vegetation to be avoided. • Vehicles shall be checked regularly for build-up of trapped vegetation. • All light vehicles shall carry an appropriate working fire extinguisher. Earthmoving equipment shall be fitted with both fire extinguishers and fire suppression.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Hot Work Safety Work Practice (RTIO-HSE-0049936) Fire Risk Assessment - Mainline Rail Grinding Fire Risk Reduction with the Rail Grinder under Normal Operation (RTIO-LO-0002082) Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE-0286653)
Without endangering personnel/equipment or undertaking unauthorised clearing, accidental scrub fires shall be extinguished by utilising appropriate fire extinguishers, water cannons, water tenders and/ or earthmoving equipment, depending on the scale of the blaze and risk to existing infrastructure.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Emergency Approval Permit Procedure (RTIO-CR-0001029)
Firefighting foams containing per- and poly-fluoroalkyl substances (PFAS) are not to be used anywhere on the IRN.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	
Out-of-control bush fires resulting from Rio Tinto's activities shall be reported to the relevant shire authority and DBCA, as per the Emergency Management Plan (RTIO-HSE-0304308).	Superintendent/ Supervisor/ Project Manager/ Social Performance and Communities team	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Emergency Response Plan (RTIO-HSE-0304308)

Action	Responsibility	References
Rehabilitation		
Cleared areas no longer required for works shall be rehabilitated, including: • Removal of all wastes. • Re-establishment of landform and drainage patterns. • Re-spreading of stockpiled soil and vegetation. • Shallow ripping along contour; • Weed management. • Monitoring.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Rehabilitation Handbook (RTIO-HSE-0011608) Rehabilitation Management Plan (RTIO-HSE-0058421)

3.8 Fauna

Objectives:

a) Minimise direct and indirect impacts on native fauna; and
b) Avoid unauthorised impacts on conservation significant fauna.

Rio Tinto's management actions to control impacts to fauna are presented in Table 9.

Table 9 Fauna management

Action	Responsibility	References
Pre-Works		
Fauna and fauna habitat areas that are sensitive to noise, vibration and light shall be identified during the Approval Request process, with controls and conditions detailed on Approval Permits to protect conservation significant fauna.	Biological Team	Regulatory Approvals User Guide (RTIO-CR-0009656)
Interactions between Rio Tinto personnel and fauna shall be managed in accordance with the Rio Tinto Wildlife Interactions Guidelines (RTIO-HSE-0013116).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Wildlife Interactions Guidelines (RTIO-HSE-0013116)
Works in areas of conservation significance shall be planned and implemented in accordance with the management actions outlined in Section 3.7.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537)
During Works		
Sensitive fauna habitat areas requiring protection from light, noise and vibration shall be demarcated as exclusion zones to protect conservation significant fauna. The use of artificial lighting during night works will be planned and managed in the following ways: • Only illuminate work areas. • Minimise light overspill. • Turn off lights when not required. • Lights to be kept close to the ground whilst still allowing for works to be undertaken safely. • Lights are operating at the required intensity. • Not illuminating habitat that has been identified as being sensitive outside of work areas.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656) Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Vehicles and equipment shall be restricted to designated roads/tracks and shall comply with applicable speed limits to prevent fauna strikes.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	

Action	Responsibility	References
Sites of potential fauna entrapment (e.g. trenches) shall be inspected at the beginning and end of each shift and shall be closed as soon as possible. Any trapped wildlife shall be recovered and released by trained wildlife handlers.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	
Structures with the potential for fauna entrapment (e.g. trenches, sumps and turkey's nest dams) shall be ramped at the ends or egress structures provided to allow fauna egress.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Wildlife injuries or fatalities shall be reported as an incident in Prospect.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)
Post Works		
Disturbed areas that are no longer required for operational purposes shall be rehabilitated to facilitate the recovery of fauna habitat complexity. Areas that are to remain post works which require external artificial lighting will be of the form that is motion sensitive or of a low intensity unless it needs to be of another type to meet the requirements of a written Act or Law.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Rehabilitation Handbook (RTIO-HSE-0011608) Rehabilitation Management Plan (RTIO-HSE-0058421)

3.9 Water resources

Objectives:

a) Minimise the impact of IRN infrastructure on natural surface water drainage; and
b) Minimise the impact of IRN operations and maintenance activities on surface water and groundwater quantity and quality.

Rio Tinto's management actions to control impacts on surface water and groundwater resources are presented in Table 10.

Table 10 Management of water resources

Action	Responsibility	References
Water supply		
Water supply, storage and distribution systems shall be designed and constructed in accordance with Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). Water storages shall be fitted with valves to automatically shut-off when full.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Water shall only be sourced from approved, appropriately licensed sources.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656)
Water abstraction shall be monitored in accordance with applicable licences.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656) Conditions set by applicable groundwater abstraction licences
Water supply, storage and distribution systems shall be regularly inspected and maintained.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	
Surface water		
Infrastructure within the IRN infrastructure corridor, including access roads, shall be designed, situated, operated and maintained in accordance with: • Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). • WQPN 83 – Infrastructure corridors near sensitive water resources. • WQPN 44 – Roads near sensitive water resources.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources DWER (2006) WQPN 44 – Roads near sensitive water resources

Action	Responsibility	References
Infrastructure shall be designed, situated and constructed so as to minimise disruption of natural surface water flows.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) Regulatory Approvals User Guide (RTIO-CR-0009656) DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources
Surface water management infrastructure (culverts, drains, diversions, containment structures) shall be regularly inspected and maintained.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources
Materials, equipment and vehicles shall not be placed, stockpiled or parked within creek beds / drainage footprints.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources
The use of herbicides shall be carried out in accordance with WQPN 83 – Infrastructure corridors near sensitive water resources.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources
Firefighting foams containing per- and poly-fluoroalkyl substances (PFAS) are not to be used anywhere on the IRN.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	
Groundwater drainage		
A minimum vertical separation of 2m shall be maintained between infrastructure and the highest seasonal groundwater standing water level.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources

3.10 Working in Public Drinking Water Supply Areas

Objectives:

a) To manage IRN operations and maintenance activities to minimise environmental impacts on Public Drinking Water Supply Areas.

Rio Tinto's additional management actions to control impacts when working in PDWSAs are presented in Table 11.

Table 11 Management of works in PDWSAs

Action	Responsibility	References
Pre-Works		
Works undertaken in Public Drinking Water Source Areas (PDWSAs) shall be planned to comply with: • WQPN 25 – Land use compatibility tables for public drinking water source areas. • Rio Tinto Approvals Permits and Clearing Permits. • Rio Tinto Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943). • WQPN 83 – Infrastructure corridors near sensitive water resources.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER (2021) WQPN 25 – Land use compatibility tables for public drinking water source areas Regulatory Approvals User Guide (RTIO-CR-0009656) Land Disturbance Work Practice (RTIO-HSE-0123835) Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943) DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources
Infrastructure within the IRN infrastructure corridor, including access roads, shall be designed, situated, operated and maintained in accordance with: • Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). • WQPN 83 – Infrastructure corridors near sensitive water resources. • WQPN 44 – Roads near sensitive water resources. The establishment of laydowns or rail infrastructure works to occur within the Harding Dam Reservoir Protection Zone (RPZ), will require further consultation with DWER-Water. No stockpiling of Rail degraded ballast / civil material within Well Head Protection or Reservoir Protection Zones. No stockpiling of Rail degraded ballast / civil material for longer than 2 months within a P1, PDWSA unless expressly approved by DWER-Water and Water Corporation, demonstrating	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel / Contaminated Land and Waste Specialist / Approvals Rail SME	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources; and DWER (2006) WQPN 44 – Roads near sensitive water resources

Action	Responsibility	References
risk avoidance and compliance with WQPN 25, *Contaminated Sites Act 2003* and draft State Planning Policy 2.9. Stockpiling of Rail degraded ballast / civil material may be stockpiled within a P2 PDWSA for longer than 2 months subject to appropriate controls such as material testing, environmental risk assessment, ongoing environmental monitoring, acceptable storage capacity and stockpile design, appropriate stockpile storage time frames and a demonstration of risk minimisation and compliance with WQPN 25, *Contaminated Sites Act 2003* and draft State Planning Policy 2.9.		
Facilities for the transport, storage and handling of hydrocarbons and hazardous materials shall meet the requirements of: • Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). • WQPN 56 – Tanks for fuel and chemical storage near sensitive water resources. • WQPN 65 - Toxic and hazardous substances.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2018) WQPN 56 - Tanks for fuel and chemical storage near sensitive water resources DWER (2015) WQPN 65 - Toxic and hazardous substances
During Works		
Works undertaken in PDWSAs shall be implemented in accordance with: • Rio Tinto Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943). • WQPN 83 – Infrastructure corridors near sensitive water resources.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943) DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources
Mobile vehicle and machinery washing and servicing shall not be carried out within PDWSAs.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER (2013) WQPN 29 – Mobile mechanical servicing and cleaning
The use of pesticides/herbicides shall be carried out in accordance with state-wide Policy 2 Pesticide use in public drinking water source areas.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources WRC (2000) Policy 2 Pesticide use in public drinking water source areas
Spill response shall be carried out in accordance with the Rio Tinto Spill Response Work Practice	Superintendent/ Supervisor/ Project Manager/ Approval	Spill Response Procedure (RTIO-HSE-0010867).

Action	Responsibility	References
(RTIO-HSE-0010867) and, where applicable, the Harding Dam Spill Procedure (RTIO-HSE-0196930).	Request Owner/ Approval Request Manager/ Site Personnel	Harding Dam Spill Procedure (RTIO-HSE-0196930)
Spills shall be reported as an incident in accordance with: • Rio Tinto Notification of Environmental Incidents Procedure (RTIO-HSE-0076061). • DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Spill Response Procedure (RTIO-HSE-0010867). Harding Dam Spill Procedure (RTIO-HSE-0196930) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) The DWER 24 hour Pollution Watch Hotline (1300 784 782) and the Water Corporation Pollution Hotline (1300 483 246) shall be contacted in accordance with WQPN 10 Containment spills – emergency response plan.
Works undertaken in PDWSAs shall be inspected and audited periodically to ensure that it complies with the relevant Approval Permit, Clearing Permit and Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943).	Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Environmental Advisor	Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943)
Post Works		
Upon completion of works in PDWSAs, the work site will be inspected to ensure it has been left in an acceptable state and there is no increased risk to water quality.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943)
Disturbed areas that are no longer required for operational purposes shall be rehabilitated.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	DWER (2009) WQPN 84 Rehabilitation of disturbed land in public drinking water supply areas Rehabilitation Handbook (RTIO-HSE-0011608) Rehabilitation Management Plan (RTIO-HSE-0058421)
Rehabilitation of disturbed land within PDWSAs shall planned and implemented in a manner consistent with WQPN 84 Rehabilitation of disturbed land in public drinking water supply areas.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER (2009) WQPN 84 Rehabilitation of disturbed land in public drinking water supply areas Rehabilitation Handbook (RTIO-HSE-0011608)

3.11 Sewage, wastewater and stormwater

Objectives:

a) Prevent pollution of the air, land and water from sewerage, wastewater and potentially contaminated stormwater; and
b) Ensure compliance with approved licenses, permits and legal provisions.

Rio Tinto's management actions to manage sewage, wastewater and stormwater are presented in Table 12.

Table 12 Sewage, wastewater and stormwater management

Action	Responsibility	References
Sewage		
A Works Approval shall be obtained from the DWER prior to the construction of any Wastewater Treatment Plant (WWTP).	State Agreement and Approvals Team	Regulatory Approvals User Guide (RTIO-CR-0009656) Environmental Protection Regulations 1987
An Operating Licence or Registration, as applicable, shall be obtained from the DWER prior to the operation of any WWTPs.	State Agreement and Approvals Team	Regulatory Approvals User Guide (RTIO-CR-0009656) Environmental Protection Regulations 1987
WWTPs and portable toilets shall meet the design requirements of the Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910).	Manager/ Superintendent/ Supervisor/ Project Manager	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
The siting of WWTPs and portable toilets shall comply with: • WQPN 22 – Irrigation with nutrient rich wastewater. • WQPN 25 – Land use compatibility tables for public drinking water source areas	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656) DWER (2008) WQPN 22 – Irrigation with nutrient rich wastewater DWER (2021) WQPN 25 – Land use compatibility tables for public drinking water source areas
WWTPs shall be operated in accordance with a WWTP Operations and Maintenance Manual and any relevant licence conditions.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel/ Site Environmental Advisor	DWER (2010) WQPN 33 – Nutrient and irrigation management plan Operating Licence or Registration (as applicable)
WWTP biosolids shall be removed by a licenced contractor and disposed of an approved location in accordance with the Rio Tinto Controlled Waste Guidelines (RTIO-HSE-0012439).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Controlled Waste Guidelines (RTIO-HSE-0012439)

Action	Responsibility	References
Spills shall be reported as an incident in accordance with: • Rio Tinto Notification of Environmental Incidents Procedure (RTIO-HSE-0076061). • DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Spill Response Procedure (RTIO-HSE-0010867). Harding Dam Spill Procedure (RTIO-HSE-0196930)Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan
Wastewater		
Wash bays shall meet the design requirements of • Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). • WQPN 68 – Mechanical equipment wash down.	Manager/ Superintendent/ Supervisor/ Project Manager	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2013) WQPN 68 – Mechanical equipment wash down
The siting of wash bays shall comply with: • WQPN 25 - Land use compatibility tables for public drinking water source areas. • Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). • WQPN 68 – Mechanical equipment wash down.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Regulatory Approvals User Guide (RTIO-CR-0009656) DWER (2021) WQPN 25 - Land use compatibility tables for public drinking water source areas Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2013) WQPN 68 – Mechanical equipment wash down
Equipment washdown shall be conducted only in approved designated areas. Wash down of equipment shall not be carried out within PDWSAs.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER (2021) WQPN 25 - Land use compatibility tables for public drinking water source areas DWER (2013) WQPN 29 – Mobile mechanical servicing and cleaning DWER (2013) WQPN 68 – Mechanical equipment wash down
Oily Water Treatment Systems (OWTS) shall meet the design requirements of the Rio Tinto Oily Water Treatment Systems Standard Specification SS-N103 (RTIO-AM-0064375).	Manager/ Superintendent/ Supervisor/ Project Manager	Oily Water Treatment Systems Standard Specification SS-N103 (RTIO-AM-0064375)
Wastewater from wash downs shall be treated through an oil/water separator. Waste oil, oily water and sediment shall be removed by a licenced contractor to an approval disposal facility.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Controlled Waste Guidelines (RTIO-HSE-0012439) DWER (2013) WQPN 68 – Mechanical equipment wash down

Action	Responsibility	References
Spills shall be reported as an incident in accordance with: • Rio Tinto Notification of Environmental Incidents Procedure (RTIO-HSE-0076061). • DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Spill Response Procedure (RTIO-HSE-0010867). Harding Dam Spill Procedure (RTIO-HSE-0196930)Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061) DWER Pollution Watch Hotline in accordance with WQPN 10 Contaminant spills — emergency response plan
Stormwater		
Stormwater shall be diverted around infrastructure and operational areas to prevent ingress and potential contamination, to the requirements of the RTIO Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910).	Manager/ Superintendent/ Supervisor/ Project Manager	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Planned maintenance shall be carried out at hydrocarbon facilities in preparation for high rainfall events prior to the commencement of the wet season.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Wet-Season Preparedness and Requirements for Discharging Stormwater to the Environment Following Significant Rainfall (RTIO-HSE-0130886) Site Specific Cyclone Procedures
Water likely to contain sediment shall be drained to a silt trap or sediment basin prior to discharge or reuse. All sediment basins and silt traps shall meet the requirements of the Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910).	Manager/ Superintendent/ Supervisor/ Project Manager	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
All potentially contaminated stormwater shall either be treated prior to discharge to the environment or contained and disposed of off-site.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources
The Site Environmental Advisor shall be consulted prior to any discharge of potentially contaminated stormwater to the environment.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Wet-Season Preparedness and Requirements for Discharging Stormwater to the Environment Following Significant Rainfall (RTIO-HSE-0130886)

3.12 Borrow pits

Objectives:

a) Develop, operate, and rehabilitate borrow pits in a way that minimises their impact and complies with Rio Tinto standards; and
b) Ensure compliance with approved borrow pit management plans.

Rio Tinto's management actions to control impacts associated with developing and operating borrow pits are presented in Table 13.

Table 13 Borrow pit management

Action	Responsibility	References
Pre-Works		
Borrow pits shall be designed and situated in accordance with the Rio Tinto: • Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). • Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583). The development of Borrow Pits adjacent to a National Park boundary, will require further assessment and consultation with DBCA.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910) Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583)
Borrow pits shall be developed and managed in accordance with the Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583)
A Borrow Pit Management Plan shall be prepared for each borrow pit describing: • Proposed testing of borrow material (test pits or drilling) or soil sample results. • Extraction methods. • Drainage management. • Weed management. • Traffic flow. • Final shape and level of finished pit. • Rehabilitation plans.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583)
Clearing / ground disturbance/ topsoil management shall be planned and carried out in accordance with an Approval Permit and a Clearing Permit (as outlined in Section 3.1 and 3.2 of this document).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583) Soil Resource Management Work Practice (RTIO-HSE-0011596)

Action	Responsibility	References
During Works		
Borrow pits shall be constructed and operated in accordance with the applicable Borrow Pit Management Plan. Any variations to the Borrow Pit Management Plan must approved by the applicable Rail Superintendent (such as Rail Earthworks Superintendent).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583) Site-specific Borrow Pit Management Plan
Borrow pits shall be inspected annually to verify compliance with the applicable Borrow Pit Management Plan.	Superintendent/ Supervisor/ Project Manager/ Site Environmental Advisor	Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583) Site-specific Borrow Pit Management Plan
Records shall be maintained of the volumes of borrow material extracted. Photographic records of the borrow pit shall be maintained throughout all phases of development, operation and rehabilitation.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager / Site Environmental Advisor	Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583) Site-specific Borrow Pit Management Plan
Post Works		
Borrow pits shall be rehabilitated in accordance with the Rio Tinto: • Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583). • applicable Borrow Pit Management Plan. • Rehabilitation Handbook (RTIO-HSE-0011608).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Environmental Advisor	Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583) Site-specific Borrow Pit Management Plan Rehabilitation Handbook (RTIO-HSE-0011608)

3.13 Rail, sleeper, ballast cleaning and renewals

Objectives:

a) Ensure renewal and cleaning works are completed in accordance with Approval Permits;
b) Manage the stockpiling, re-cycling, re-use and disposal of used rail, sleepers and ballast to avoid adverse impacts on the environment.

Rio Tinto's management actions to control impacts associated with rail, sleeper and ballast renewal (including cleaning, re-use and stockpiling of degraded ballast) are presented in Table 14.

Table 14 Rail, sleeper and ballast renewal management

Action	Responsibility	References
Pre-Works		
In situ ballast sampling and analysis shall be completed prior to ballast cleaning/removal works commencing.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Ballast Sampling and Disposal Management Decision Process
Degraded ballast reuse, interim stockpiling and long-term stockpiling is to be identified in the AR description, approved by the Rio Tinto Contaminated Sites Specialist, and comply with the Ballast Sampling and Disposal Management Decision Process flow chart. Interim degraded ballast stockpile locations shall be flat, clear of drainage lines or areas prone to flooding, and appropriately sited to minimise erosion or runoff. Material that is determined as potentially medium to high environmental risk may require a compaction liner (or similar) on which the ballast is to be stored. Bunding may be required to contain any incidental rainfall events and resultant migration of sediment. If deemed required, temporary sediment fencing or other erosion management measures may be installed to capture sediment / stockpiled materials during and post intense rainfall events. Interim degraded ballast / civil material should be removed from the interim degraded ballast stockpile locations within two months (or timing as agreed with Approvals) and taken to a long-term degraded ballast stockpile location.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager / Contaminated Land and Waste Specialist / Approvals Rail SME	Ballast Sampling and Disposal Management Decision Process Regulatory Approvals User Guide (RTIO-CR-0009656) DWER (2013) WQPN 27 Liners for containing pollutants, using engineered soils

Action	Responsibility	References
Long-term degraded ballast stockpile locations shall be flat, clear of drainage lines or areas prone to flooding, and appropriately sited to minimise erosion or runoff. Other requirements for both the construction and management of the long-term stockpiles are as follows: • Baseline soil sampling must be completed prior to the construction of the facility. • Baseline groundwater sample collection from a downgradient groundwater monitoring well with ongoing annual sampling. • Material that is determined as potentially medium to high environmental risk may require a compaction liner (or similar) on which the ballast is to be stored. • Bunding may be required to include bunding to ensure that any incidental rainfall on the stockpile and resultant sediment remains with the stockpile area. Compliance with WQPN 27. • Dust emissions must be managed. • A stockpile management plan including risk assessment, facility capacity and stockpile landforms is required. • Inspections following significant rainfall events for facility integrity, sediment / stockpiled material migration or surface water runoff • Adequate records management process for material movements Stockpiling in a PDWSA: • No stockpiling of Rail degraded ballast / civil material within Well Head Protection or Reservoir Protection Zones. • No stockpiling of Rail degraded ballast / civil material for longer than 2 months within a P1 PDWSA unless expressly approved by DWER-Water and Water Corporation, demonstrating risk avoidance and compliance with WQPN 25, *Contaminated Sites Act 2003* and draft State Planning Policy 2.9.		

Action	Responsibility	References
• Stockpiling of Rail degraded ballast / civil material may be stockpiled within a P2 PDWSA for longer than 2 months subject to appropriate controls such as material testing, environmental risk assessment, ongoing environmental monitoring, acceptable storage capacity and stockpile design, appropriate stockpile storage time frames and a demonstration of risk minimisation and compliance with WQPN 25, *Contaminated Sites Act 2003* and draft State Planning Policy 2.9.		
Ground disturbance related to rail, sleeper and ballast renewal/ maintenance shall be planned and implemented in accordance with the management actions outlined in Section 3.1.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Regulatory Approvals User Guide (RTIO-CR-0009656) Land Disturbance Work Practice (RTIO-HSE-0123835) AMES, Project Services, Supply Chain & Services Clearing Permit (RTIO-HSE-0326440) Clearing Permit/Sheet Guidance Note (RTIO-HSE-0147850) Clearing Sheet Template (RTIO-HSE-0147848)
Works in areas of conservation significance shall be planned and implemented in accordance with the management actions outlined in Section 3.7.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537)
Works undertaken in PDWSAs shall be planned and implemented in accordance with the management actions outlined in Section 3.10.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943)
During Works		
Used rail track/ sleepers/ pads and track jewellery shall be stockpiled at designated laydown areas for collection/recycling.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)

Action	Responsibility	References
Laydown facilities used to stockpile materials associated with rail, sleeper and ballast renewal maintenance activities shall meet the requirements of the Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910). Areas on which stockpiles of imported clean fill shall be flat, clear of drainage lines or areas prone to flooding, and appropriately sited to minimise erosion. If stockpiled materials are to remain in situ for a period of time, they shall be bunded to contain any incidental rainfall events and resultant sediment. If deemed required, temporary sediment fencing or other erosion management measures may be installed to capture sediment / stockpiled materials during and post intense rainfall events.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Wastes generated during rail, sleeper and ballast renewal/ maintenance activities shall be disposed of in accordance with the Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578).	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)
Post Works		
Stockpiles of degraded ballast shall be inspected biannually or after significant rainfall events.	Site Environmental Advisor	
Stockpiles of all renewals/ maintenance waste streams shall be disposed of as per the Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578) and records of inventory maintained.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Ballast Sampling and Disposal Management Decision Process Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)

3.14 Concrete batching

Objectives:

a) Ensure all Licenses and Approvals have been obtained before concrete works commence;
b) Manage emissions associated with the operation of concrete batching plants to prevent environmental harm; and
c) No concrete batching is undertaken within a PDWSA.

Rio Tinto's management actions to control impacts associated with concrete batching plant operations are presented in Table 15.

Table 15 Concrete batching plant management

Action	Responsibility	References
Pre-Works		
A Works Approval shall be obtained from the DWER prior to the construction of any concrete batching plants.	State Agreement and Approvals Team	Regulatory Approvals User Guide (RTIO-CR-0009656) Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
An Operating Licence shall be obtained from the DWER prior to the operation of any concrete batching plants.	State Agreement and Approvals Team	Regulatory Approvals User Guide (RTIO-CR-0009656) Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
Concrete batching plants shall be sited and designed in accordance with Rio Tinto Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910).	Project Lead	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
During Works		
Cement shall be stored in bags or silos. Storage silos shall be fitted with an air cleaning system and a level indicator or a relief valve to minimise dust emissions.	Supervisor	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
Aggregate and sand shall be stored in storage bins or bays designed to minimise airborne dust. Stockpile height is not to exceed the height of the bin or bay (including any wind shields fitted to it).	Supervisor	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
Vehicles carrying concrete or any of its ingredients shall not leave the premises until it has been washed free of cement slurry and dust.	Supervisor	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998

Action	Responsibility	References
Any materials spilt during concrete batching shall be cleaned up immediately and reported as an incident in Prospect.	Supervisor	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998 Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)
Wastewater draining from the concrete batching plant shall be collected in a slurry pit or settling pond. Settling ponds shall be sized for appropriate wastewater retention times.	Project Lead	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
Settled material in a slurry pit shall be maintained in a wetted (spadable) state and shall not exceed a level higher than 30cm below top of slurry pit.	Project Lead	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
All wastewater treatment equipment shall be maintained, emptied or cleaned as often as necessary to ensure efficient operation.	Supervisor	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
Wastewater shall not be discharged from the premises until particulates have settled out, been treated by an oil-water separator if the wastewater is likely to contain hydrocarbons and approved by the Site Environmental Advisor.	Supervisor	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
The concrete batching plant shall be inspected and audited periodically to ensure that it complies with relevant legislation.	Supervisor	Iron Ore - Management System Standard Element 16 - Performance Assessment and Auditing (RTIO-HSE-0072777)
Post Works		
Wastes generated during concrete batching (including material removed from slurry pits, settling ponds, silt traps and oil-water separators) shall be recycled or disposed of at an appropriately licensed landfill or waste facility.	Project Lead	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998 Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)

3.15 Acid sulfate soils

Objectives:

a) Determine the potential risk locations of ASS through geotechnical investigations in the IRN area to ascertain the accuracy of the ASS maps; and
b) Manage ASS so that the environment and infrastructure assets are not adversely impacted.

Rio Tinto's management actions to control ASS risks are presented in Table 16.

Table 16 Acid sulfate soil management

Action	Responsibility	References
Pre-Works		
Determine ASS risk where ground disturbance or excavations are to be carried out.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER. (2015). Identification and investigation of acid sulfate soils and acidic landscapes DWER ASS risk maps Mineral Waste Management Plan. RTIO-HSE-0040347
Where ASS is deemed to be a risk, develop a site-specific ASS management plan in accordance with Department of Water and Environmental Regulations (DWER) guidelines.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER. (2015). Treatment and management of soils and water in ASS landscapes Spontaneous Combustion and ARD Management Plan (RTIO-HSE-0010872)
During Works		
In the instance that ASS is identified during works and there is no existing ASS management plan, develop a site-specific ASS management plan in accordance with DWER guidelines to the satisfaction of the Environmental Superintendent.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER. (2015). Treatment and management of soils and water in ASS landscapes
Implement and adhere to the site-specific ASS Management Plan.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Site-specific ASS Management Plan
Post Works		
Dispose of untreated ASS at a disposal location approved by DWER.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Site-specific ASS Management Plan
Monitor for indications of acidification where ASS was uncovered, to the satisfaction of DWER.	Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Site-specific ASS Management Plan
Maintain records of compliance with the site-specific ASS Management Plan.	Superintendent/ Supervisor/ Project Manager	Site-specific ASS Management Plan

3.16 Fibrous materials

Objectives:

a) Prevent contamination to the environment from fibrous minerals; and
b) Prevent exposure to personnel from harmful levels of naturally occurring fibrous minerals in the workplace

Rio Tinto's management actions to control risks associated with fibrous materials are presented in Table 17**Error! Reference source not found.**.

Table 17 Fibrous materials management

Action	Responsibility	References
Pre-Works		
Prior to undertaking maintenance works that involve ground disturbance, an Approvals Request Permit shall be sought, which will include an assessment of fibrous materials risk and required controls.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Fibrous Minerals Management Plan (RTIO-PDE-0062061) Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017)
Personnel who may be required to work in 'potentially fibrous' or 'fibrous' areas shall complete fibrous minerals awareness and management training.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	Fibrous Minerals Management Plan (RTIO-PDE-0062061) Asbestos Work Management Practice (RTIO-HSE-0138640) Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017)
Detailed testing of the materials in proposed borrow pits shall include testing for fibrous materials and verified as 'free of asbestos' prior to borrow pit construction.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017) Standard Work Practice – Sampling of (Bulk) Suspected Asbestos Containing Material (RTIO-HSE- 0138760)
Entrances to 'Potentially Fibrous' and 'Fibrous' areas shall be sign posted and demarcated.	Manager/ Superintendent/ Supervisor/ Project Manager/ Site Personnel	Fibrous Minerals Management Plan (RTIO-PDE-0062061) Asbestos Work Management Practice (RTIO-HSE-0138640) Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017)

Action	Responsibility	References
During Works		
All works shall be carried out in accordance with: • Fibrous Minerals Management Plan (RTIO-PDE-0062061). • Asbestos Work Management Practice (RTIO-HSE-0138640). In addition, works carried out in the Gudai-Darri Western Rail Corridor (WRC) shall be carried out in accordance with the Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017).	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Fibrous Minerals Management Plan (RTIO-PDE-0062061) Asbestos Work Management Practice (RTIO-HSE-0138640) Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017)
Intersection of suspected fibrous materials shall be reported as an incident in Prospect and relevant regulators notified.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Fibrous Minerals Management Plan (RTIO-PDE-0062061) Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017) Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)
Borrow pits found to contain fibrous materials shall be closed, added to the potentially contaminated sites register (and GIS restricted access layer) and rehabilitated.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017) Potentially Contaminated Sites Register (RTIO-HSE-0109618)
Post Works		
Records relating to presence of fibrous materials, including locations, depth, type and remedial actions taken shall be maintained for a minimum of 30 years.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Fibrous Minerals Management Plan (RTIO-PDE-0062061)

3.17 Dust, air quality and greenhouse gases

Objectives:

a) Minimise the generation of dust; and
b) Minimise combustion and greenhouse gas emissions where practicable.

Rio Tinto's management actions to manage dust, air quality and greenhouse gas emissions are presented in Table 18.

Table 18 Dust, air quality and greenhouse gas emissions management

Action	Responsibility	References
Pre-Works		
Energy efficiency and greenhouse gas emissions shall be considered during the selection of plant and equipment.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
During Works		
Alternative energy sources (such as solar or wind) shall be used where possible e.g. when powering remote equipment.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Water carts or other dust suppression agents such as binders or crusting agents shall be used to minimise dust generation.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	
Vehicle speeds on work areas and access roads shall be restricted to minimise dust generation.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	
Rail maintenance equipment and facilities, including ballast cleaning equipment, mobile crushing and screening plants and concrete batching plants, shall be operated with suitable dust extraction systems, screens and/or sprays to minimise dust.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)
Post Works		
Disturbed areas no longer required for operations or maintenance works shall be rehabilitated to reduce dust emissions.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608) Rehabilitation Management Plan (RTIO-HSE-0058421)
Long-term ballast stockpiles shall be inspected regularly to ensure no dust emission concerns or environmental impacts resulting from dust off stockpiled rail material.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608)

3.18 Rehabilitation

Objectives:

a) Rehabilitate all non-permanent disturbed areas to a standard that achieves a safe, stable landform which supports self-sustaining native vegetation, is free draining, non-polluting and visually compatible with the surrounding landscape;
b) Assess rehabilitation performance for continual improvement purposes; and
c) Ensure contamination caused by rail operations or maintenance activities is remediated

Rio Tinto's management actions to manage progressive rehabilitation in association with IRN operations and maintenance are presented in Table 19.

Table 19 Rehabilitation management

Action	Responsibility	References
Pre-works		
An assessment shall be made annually of the areas that can be rehabilitated. These areas shall become the annual rehabilitation target, with shall be tracked through the Environmental Improvement Plan process.	Site Environmental Advisor/ Rehabilitation and Closure Team	Rehabilitation Management Plan (RTIO-HSE-0058421)
Cleared areas no longer required for operations or maintenance activities shall be rehabilitated in accordance with the requirements defined in the site-specific Clearing Permit and Rehabilitation Handbook (RTIO-HSE-0011608).	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	AMES, Project Services, Supply Chain & Services Clearing Permit (RTIO-HSE-0326440) Site-specific Clearing Permit Rehabilitation Handbook (RTIO-HSE-0011608)
Borrow pits shall be rehabilitated in accordance with the Borrow Pit Management Procedure (RTIO-LO-0027583), applicable Borrow Pit Management Plan and the Rehabilitation Handbook (RTIO-HSE-0011608).	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583) Site-specific Borrow Pit Management Plan Rehabilitation Handbook (RTIO-HSE-0011608)
Within areas of conservation significance, cleared areas no longer required for operations or maintenance activities shall be rehabilitated in accordance with the Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) and Rehabilitation Handbook (RTIO-HSE-0011608).	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537) Rehabilitation Handbook (RTIO-HSE-0011608)
Rehabilitation of disturbed land within PDWSAs shall planned and implemented in a manner consistent with WQPN 84 Rehabilitation of disturbed land in public drinking water supply areas.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	DWER (2009) WQPN 84 Rehabilitation of disturbed land in public drinking water supply areas Rehabilitation Handbook (RTIO-HSE-0011608)

Action	Responsibility	References
During works		
Hazardous materials shall be removed from site via a licenced contractor for treatment or disposal.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)
Contaminated soil shall be removed and disposed at a licenced landfill or approved bioremediation area.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)
Fibrous materials shall be encapsulated with at least one metre of clean waste material and sign-posted.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Fibrous Minerals Management Plan (RTIO-PDE-0062061)
Landforms shall be contoured to blend with the surrounding landscape and pre-existing drainage lines reinstated.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608) Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583) Site-specific Borrow Pit Management Plan
Where rehabilitation areas are large with a slight slope, windrows shall be constructed on the contour approximately every 50m to control sheet flow.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608)
Areas to be rehabilitated shall be deep-ripped along contour or, in the case of roads and access tracks, along their length.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608)
Access tracks identified as serving no ongoing useful purpose for either RTIO operations or other land users shall be closed and rehabilitated. Relevant stakeholders shall be consulted prior to undertaking closure and rehabilitation of access tracks.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608)
Where the use of a surface treatment such as a salt- or acid-based dust suppressant poses a risk to plant germination, clean fill shall be placed over the surface.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608)
Stockpiled subsoil, topsoil and vegetation shall be re-spread onto rehabilitation areas and ripped to mix.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608)

Action	Responsibility	References
Where topsoil is either deficient or degraded, seed of local provenance shall be spread, following consultation with the Rio Tinto Rehabilitation Specialist.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608)
Rehabilitated areas shall be demarcated to prevent access and appropriately sign-posted.	Manager/ Superintendent/ Supervisor/ Project Manager/ Approval Request Owner/ Approval Request Manager/ Site Personnel	Rehabilitation Handbook (RTIO-HSE-0011608)
Post-rehabilitation		
Rehabilitated areas shall be monitored to evaluate progress, identify any remedial works required and inform continuous improvement in rehabilitation methodologies.	Rehabilitation and Closure Team	Rehabilitation Handbook (RTIO-HSE-0011608) Rehabilitation Management Plan (RTIO-HSE-0058421) Integrated Rail Network Closure Plan (RTIO-HSE- 0040499)
Remedial works shall be implemented as necessary to address erosion or unsatisfactory revegetation as determined through monitoring.	Rehabilitation and Closure Team	Rehabilitation Management Plan (RTIO-HSE-0058421) Integrated Rail Network Closure Plan (RTIO-HSE- 0040499)
Weeds shall be monitored and managed in accordance with a site-specific Weed Action Plan.	Rehabilitation and Closure Team	Integrated Rail Network Closure Plan (RTIO-HSE- 0040499) Weed Management Strategy (RTIO-HSE-0143151)
Records detailing rehabilitation methodologies used, surveyed locations and monitoring progress data shall be maintained. Spatial records of areas under rehabilitation shall be maintained in the Rio Tinto GIS.	Rehabilitation and Closure Team	Rehabilitation Handbook (RTIO-HSE-0011608) Rehabilitation Management Plan (RTIO-HSE-0058421) Integrated Rail Network Closure Plan (RTIO-HSE- 0040499)

4 Referenced documents

Table 20 Rio Tinto Rail Division environmental management supporting documentation

Title	Application
Acid sulfate soils	
Mineral Waste Management Plan (RTIO-HSE-0040347)	Details the mineral waste activities and accountabilities during resource evaluation and studies to plan for the management and monitoring of mineral waste risks (e.g. acid generating materials, fibrous materials).
Spontaneous Combustion and ARD Management Plan (RTIO-HSE-0010872)	Outlines the activities and groups accountable for the management of the risks associated with Spontaneous Combustion and Acid Rock Drainage to facilitate the development and implementation of appropriate risk reduction measures.
Approvals	
Regulatory Approvals User Guide (RTIO-CR-0009656)	Applicable to all activities. Outlines the regulatory approvals required to undertake an activity and the explicit requirement for all activities to have an Approval Request (AR) Permit in place (as per the ARCS) prior to undertaking any works.
Emergency Approvals Permit Procedure (RTIO-CR-0001029)	Applicable to emergency situations. Outlines the requirements for an Emergency Permit when urgent ground disturbance or clearing is needed under emergency circumstances e.g. to create a firebreak during a wildfire.
Assessment and auditing	
Iron Ore - Management System Standard Element 16 - Performance Assessment and Auditing (RTIO-HSE-0072777)	Sets out the requirements for evaluating and reporting on HESQ performance and measuring compliance with HESQ obligations and commitments.
Ballast renewal	
Ballast Sampling and Disposal Management Decision Process	Outlines the process for testing and evaluating used ballast, and re-use or disposal in accordance with its geophysical and geochemical properties. The Decision Process addresses the DWER (2021) Assessment and management of contaminated sites risk assessment framework and the DWER (2019) Landfill waste classification and waste definitions 1996 (amended 2019).
Borrow pits	
Borrow Pit Management Procedure PRC-MP-052 (RTIO-LO-0027583)	Outlines the principles and objectives for developing, operating and rehabilitating existing and new borrow pits held by the Railways Division. Includes a checklist for the selection, design, operation and rehabilitation of borrow pits.
Clearing / Land disturbance	
Land Disturbance Work Practice (RTIO-HSE-0123835)	Applicable to all land clearing activities. Outlines mandatory requirements and control measures that minimise risks associated with land clearing. This includes steps for approvals, qualifications, land clearing permits, survey/pegging clearing footprints and post clearing tasks.
Survey Management of Land Clearing Work Practice (RTIO-HSE-0149120)	Applicable to all land clearing activities. Outlines the required survey practice for land clearing activities.
Clearing Permit/Sheet Guidance Note (RTIO-HSE-0147850)	Provides guidance on the use of the Clearing Sheet Template (RTIO-HSE-0147848).

Title	Application
Disturbance and Rehabilitation Data Acquisition and Reporting Work Practice (RTIO-HSE-0059592)	Outlines the process and accountabilities for capturing accurate and consistent disturbance and rehabilitation data to meet internal and external annual reporting requirements.
AMES, Project Services, Supply Chain & Services Clearing Permit (RTIO-HSE-0326440)	Applicable to all land clearing activities. A Clearing Permit is required prior to commencement of clearing and is in addition to an ARCS Approval. The Clearing Permit is issued by the Environment Advisor.
Clearing Sheet Template (RTIO-HSE-0147848)	Tool to facilitate the implementation of a Clearing Permit. Must be used when undertaking clearing activities.
Conservation areas	
Railways Division Maintenance Activities within Areas of Conservation Significance Environmental Framework (RTIO-HSE- 0296537)	Applicable to the following sections of Rail: • Tom Price Main Line 70KP – 122KP; • Deep Dale Main Line 69KP – 81KP; and • Yandicoogina Main Line 301KP – 355KP. Outlines additional controls that must be implemented to minimise potential environmental impacts. Requires that Department of Biodiversity, Conservation and Attractions must be provided two weeks' notice of proposed works.
Contaminated sites	
Potentially Contaminated Sites Register (RTIO-HSE-0109618)	Register for maintaining data and records on potentially contaminated sites.
Emergency response	
Emergency Response Plan (RTIO-HSE-0304308)	Outlines the response actions to be taken for foreseeable emergency scenarios that could impact on people, the environment, assets or Rio Tinto business continuity.
Environmental design	
Environmental design criteria – Permanent and temporary facilities (RTIO-AM-0032910)	Sets out the minimum standards in relation to environmental design criteria for permanent and temporary infrastructure.
Fauna	
Wildlife Interactions Guidelines (RTIO-HSE-0013116)	Applicable to interactions with wildlife and management of injured fauna.
Fibrous materials	
Fibrous Minerals Management Plan (RTIO-PDE-0062061)	Applies to the potential disturbance of naturally occurring fibrous minerals during exploration, construction, operations and closure activities. Outlines the minimum operational requirements regarding hazards associated with exposure to naturally occurring fibrous minerals.
Asbestos Work Management Practice (RTIO-HSE-0138640)	Outlines the requirements under relevant Rio Tinto and legislative frameworks to effectively identify, assess and control the risks associated with asbestos to minimise the risk to health posed by asbestos fibres.
Gudai-Darri (Koodaideri) Iron Ore Mine and Infrastructure Project Asbestos Environmental Management Plan (RTIO-HSE-0283017)	Applies to the Gudai-Darri Main Line. Details the management measures and monitoring required to managed asbestos risks associated with the design, construction and operation of the Gudai-Darri Main Line where it intersects the Wittenoom Asbestos Management Area.
Standard Work Practice – Sampling of (Bulk) Suspected Asbestos Containing Material (RTIO-HSE- 0138760)	Describes the method for collecting a sample of suspected asbestos containing material in a safe and uniform manner.

Title	Application
Fire prevention and management	
Hot Work Safety Work Practice (RTIO-HSE-0049936)	Details the mandatory requirements to manage the fire risk associated with performing hot works. Includes the requirements of the Hot Works Permit system and controls to be put in place to reduce the risk of fire.
Fire Risk Reduction with the Rail Grinder under Normal Operation (RTIO-LO-0002082)	Details the mandatory requirements to manage the fire risk associated with rail grinding operations.
Fire Risk Assessment - Mainline Rail Grinding	Tool to assess the fire risks of mainline rail grinding under prevailing and forecast environmental conditions.
Standard Work Procedure. Rail Network. Profile Grind Weld (RTIO-LO-0100292)	Outlines the steps required for safely and efficiently using and conducting a profile grind weld.
Hazardous substances	
Hazardous Substances Work Practice (RTIO-HSE-0121452)	Details the minimum requirements for the storage and handling of hazardous substances, including assessment and approval for use, change management processes, safety data sheet requirements, procedures for the use, storage and disposal of hazardous substances, including those used by contractors.
Heritage	
Heritage Delineation Procedure (RTIO-HSE-0097223)	Provides guidance on how Heritage assets can be protected by physical barriers safely and efficiently, without impacts to Heritage sites, harm to workers or inadvertent damage to the environment. The procedure can be applied retrospectively, where existing Heritage delineation needs maintenance or repair, a new site is identified, a design is changed or an agreed request from Traditional Owners for delineation around a specific site / area.
Hydrocarbons	
Spill Response Procedure (RTIO-HSE-0010867)	Applicable to all hydrocarbon spills. Outlines the process for spill management including first response, clean-up requirements and reporting.
Harding Dam Emergency Spill Response Procedure (RTIO-HSE-0196930)	Applicable to all hydrocarbon spills in the Harding Dam catchment (Deep Dale Main Line 49 – 54 KP). Outlines the process for spill management including an assessment of significance, first response, clean-up requirements and reporting.
Oily Water Treatment Systems Standard Specification SS-N103 (RTIO-AM-0064375)	Describes requirements for the design, specification, construction and commissioning selection of new oily water treatment systems (OWTS).
Incident reporting	
Notification of Environmental Incidents Procedure (RTIO-HSE-0076061)	Describes the processes for reporting environmental and legal compliance incidents internally, the circumstances in which they need to be reported to external agencies and the procedure for notifying those agencies.
Record keeping	
Iron Ore Management System Standard – Element 15 – Data and Records Management (RTIO-HSE-0197649)	Describes the requirements for controlling and retaining data and records.

Title	Application
Rehabilitation	
Rehabilitation Handbook (RTIO-HSE-0011608)	Applicable to all land clearing activities that require subsequent rehabilitation. Outlines the process for land rehabilitation including monitoring.
Rehabilitation Management Plan (RTIO-HSE-0058421)	Outlines the process steps and key responsibilities involved with rehabilitation across the Rio Tinto Pilbara Operations. Applies to rehabilitation planning, implementation and monitoring activities.
Integrated Rail Network Closure Plan (RTIO-HSE-0040499)	Provides the overarching framework for the progressive rehabilitation and closure of rail-related disturbance including the setting of completion criteria, scheduling of rehabilitation activities, undertaking rehabilitation research and trials, and monitoring and maintenance of rehabilitated areas.
Risk assessment	
Iron Ore Management System Standard – Element 3 – Hazard Identification and Risk Management (RTIO-HSE-0062207)	Describes the 3-tier framework for undertaking risk assessments to identify, evaluate and manage HESQ risks.
Site clean-up	
Standard Work Procedure. Rail Network. Clean Up Site (RTIO-LO-0099447)	Outlines the steps required for safely and efficiently cleaning up work sites.
Soil resources	
Soil Resource Management Work Practice (RTIO-HSE-0011596)	Applicable to all ground engaging activities on non-disturbed areas. Outlines the requirements stripping, handling and storage for topsoil and subsoil.
Soil Data Sheet (Appendix 1 of the Soil Resource Management Work Practice (RTIO-HSE-0011596))	Tool to capture topsoil data associated with topsoil management. Must be used if topsoil is stockpiled beyond the life of the works (i.e. stockpile remains after demobilisation).
Training	
Iron Ore Management System Standard – Element 6 – Training, Competency and Awareness (RTIO-HSE-0084278)	Describes the training, competency and awareness requirements for all Rio Tinto employees and contractors related to the significant risks associated with their duties and areas of activity.
Water resources	
Checklist for Works within Drinking Water Catchment Areas (RTIO-HSE-0336943)	Checklist outlining conditions associated with undertaking work within a PDWSA. To be completed prior to commencing work.
Wet-Season Preparedness and Requirements for Discharging Stormwater to the Environment Following Significant Rainfall (RTIO-HSE-0130886)	Outlines the requirements for discharging stormwater from bunded areas after rainfall.
Waste	
Railway Division Waste Management, Treatment, Storage and Disposal Guidelines (RTIO-HSE-0011578)	Applicable to the disposal of waste. Outlines requirements and/or locations for storage and disposal of waste streams.
Controlled Waste Guidelines (RTIO-HSE-0012439)	Outlines the regulatory requirements, current practices and accountabilities for the management of controlled wastes.
Non-Mineral Waste Management Work Practice (RTIO-HSE-0010849)	Outlines the regulatory requirements, current practices and accountabilities for the management of wastes other than controlled wastes and mineral wastes.

Title	Application
Weeds	
Weed Management Strategy (RTIO-HSE-0143151)	Overarching strategy for the management of weeds across Rio Tinto's Pilbara operations, supported by site-specific Weed Action Plans.
Railways Division Weed Action Plan (RTIO-SE-0151581)	Provide guidance on the management of weeds along Rio Tinto's Pilbara railway network in order to ensure the effective, efficient and risk-based management of weeds.
Equipment Hygiene Inspections Procedure (RTIO-HSE-0036005)	Applicable to the movement of all ground engaging equipment. Outlines the hygiene requirements for equipment arriving and leaving a works area.
Equipment Hygiene Inspection Certificate (Appendix 1 of the Equipment hygiene inspections procedure (RTIO-HSE- 0036005))	Tool to facilitate hygiene inspection. Records of inspections must be retained.

Table 21 Government regulations, standards and guidelines

Title	Application
Regulations	
Environmental Protection Regulations 1987	Regulates prescribed premises to control pollution. Prescribed premises are defined in Schedule 1 of the regulations.
Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998	Regulates concrete batching and cement product, including provision for the control of dust, storage of materials, control of wastewater and disposal of wastes.
Standards	
Australian Standard 1940-2017 The Storage and Handling of Flammable and Combustible Liquids	Details requirements for the planning, design, construction, and safe operation of all installations in which flammable or combustible liquids are stored or handled. It also covers minor storage, package storage and handling, storage in tanks, fuel dispensing, piping and tank auxiliaries, operations and fire protection facilities.
Water Quality Protection Notes	
DWER (2020) WQPN 10 – Contaminant spills — emergency response plan	Provides guidance on the preparation and use of a comprehensive emergency response plan; recommendations for contaminant management and spill response; and contact details for emergency response processes for contaminant spills.
DWER (2008) WQPN 22 – Irrigation with nutrient rich wastewater	Provides a general guide on issues of environmental concern related to the irrigation of land with nutrient rich wastewater and offers potential solutions. It advises on the site-specific factors that should be considered with respect to the design and operation of irrigation systems.
DWER (2021) WQPN 25 – Land use compatibility tables for public drinking water source areas	Provides guidance on land uses and activities within PDWSAs to protect drinking water quality and public health. It implements DWER's Strategic policy: Protecting PDWSAs in Western Australia and Policy: Land use compatibility in PDWSAs.
DWER (2013) WQPN 29 – Mobile mechanical servicing and cleaning	Provides guidance on acceptable practices and statutory measures employed to protect the quality of water resources from risks associated with mobile cleaning and/or servicing of vehicles and mechanical plant in settings outside of service stations and workshops.

Title	Application
DWER (2010) WQPN 33 – Nutrient and irrigation management plan	Provides guidance on the development of Nutrient and Irrigation Management Plans for agricultural activities. It also applies to irrigation using treated wastewater and thereby is complementary to DWER (2008) WQPN 22 – Irrigation with nutrient rich wastewater.
DWER (2006) WQPN 44 – Roads near sensitive water resources	Provides guidance on the design, construction and operation of roads (sealed and unsealed) and associated drainage and bridge structures in relation to sensitive water resources including conservation significant wetlands and PDWSAs.
DWER (2018) WQPN 56 – Tanks for fuel and chemical storage near sensitive water resources	Provides best management practices for liquid chemical and fuel storage tanks in and near sensitive water resources. It applies to tanks, drums and intermediate bulk containers – including pipework fittings and filling and dispensing apparatus – that are: • 250 litres and above in capacity; • permanent or temporary; • above-ground or underground; • outside or within another structure (e.g. shipping container, shed, trailer).
DWER (2015) WQPN 65 – Toxic and hazardous substances	Provides information and technical advice on the design, construction, operation and potential decommissioning and closure of facilities for the storage and use of toxic and hazardous substances to protect sensitive water resources.
DWER (2013) WQPN 68 – Mechanical equipment wash down	Provides guidance on the siting, design and operation of fixed facilities used to wash down vehicles and mechanical plant.
DWER (2007) WQPN 83 – Infrastructure corridors near sensitive water resources	Provides guidance on the planning, development and operation of infrastructure corridors to minimise impacts on water resources e.g. from land clearing, disruption of surface drainage, erosion and sediment transport, contaminated run-off, and the use of chemicals during infrastructure maintenance.
DWER (2009) WQPN 84 – Rehabilitation of disturbed land in public drinking water supply areas	Provides guidance on the planning and implementation of rehabilitation of land within PDWSAs disturbed by human activities.
Other Guidelines	
DWER (2015). Identification and investigation of acid sulfate soils and acidic landscapes	Provides practical guidance in relation to the minimum level of investigation required to: • identify the presence or the absence of acid sulfate soil (ASS) in areas likely to be disturbed by a proposed development or other project; and, if present; and • define the nature and extent of ASS and the amount of existing and potential acidity it contains in order to determine appropriate management measures.
DWER (2015). Treatment and management of soils and water in ASS landscapes	Provides technical and procedural advice to avoid environmental harm and achieve best practice environmental management when planning for activities that may disturb ASS.
DWER (2018) Controlled waste category list	Arranges the controlled wastes listed in Schedule 1 of the Environmental Protection (Controlled Waste) Regulations 2004 into 15 broad waste groups and assigns a waste code to each waste type within the group. The waste codes are used by industry and the DWER for waste tracking and reporting purposes.
DWER (2019). Landfill waste classification and waste definitions 1996 (amended 2019)	Provides guidance and criteria to be applied in determining the classification of wastes for acceptance to landfills licensed or registered in Western Australia in accordance with Part V Division 3 of the Environmental Protection Act 1986.

Title	Application
DWER (2021). Assessment and management of contaminated sites	Provides guidance on the assessment and management of contaminated sites in WA within the legislative framework provided by the Contaminated Sites Act 2003 (CS Act), the Contaminated Sites Regulations 2006 (CS Regulations) and the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM).
WRC (2000). Policy 2 Pesticide use in public drinking water source areas	Provides guidance on the management and use of pesticides in public drinking water source areas

Rio Tinto

Iron Ore (WA)

Mobile Crushing & Screening Management Plan

1 Context

This Management Plan will apply to all mobile crushing and screening plants (mobile plants) that are licensed to operate on prescribed premises managed by Rio Tinto in the Pilbara (sites licensed under s53 of *Environmental Protection Act 1986* (WA)).

Mobile crushing and screening activities which are subject to Category 12 and Category 70 of Schedule 1 of the *Environmental Protection Regulations* 1987 (WA) must be licensed by the Department of Environment Regulation (DER) prior to operation.

This Management Plan establishes minimum requirements for the control of environmental risks associated with setup and operation of mobile plants. In addition to the controls described in the Environmental Management section below, each site shall conduct a qualitative risk assessment and implement any further appropriate controls.

2 Objective

The purpose of this Management Plan is to provide minimum standards and a consistent approach to the environmental management of mobile plants across Rio Tinto's Pilbara sites and to facilitate the licensing of mobile plants when transporting them on and off site.

3 Part V Licensing

Application enquiry forms for new mobile plants on sites where a Part V Operating Licence does not have Category 12 and / or Category 70 will be submitted to the DER. A licence amendment will then be required prior to operating the plant. Once Category 12 and / or 70 is listed on a site licence, mobile plants will be able to move on and off site without requiring notification to the DER. The capacity for Category 12 and / or 70 on site Part V licences will be set in consultation with the DER for each licence to ensure constant licence amendments are not required to increase the design capacity of Category 12 for example, if two separate mobile plants are required onsite at the same time.

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4 Environmental Management

Environmental management on a prescribed premise is governed by the Rio Tinto Health, Safety, Environment and Quality (HSEQ) Management System. This system ensures that environmental controls are developed for key environmental aspects (risks), legal compliance is maintained and continuous improvement is achieved through a formal review process.

As part of the HSEQ Management System, Rio Tinto conducts environmental risk assessments for all of its activities that have the potential to affect the environment. This is part of a HSEQ Qualitative Risk Assessment process, which involves the following steps:

- Identifying potential risks and assessing them based on likelihood of occurrence and potential consequence without any controls in place.
- Identifying the necessary controls to mitigate the risk.
- Identifying the residual risk with the controls in place.

Potential environmental risks associated with the construction and operation of mobile plants have been considered and are listed below, along with discussion of the mitigation or control measures to be used.

4.1 Dust emissions

During operation of mobile plants, dust may be generated due to the abrasive nature of the process. Dust from mobile plants shall be managed by:

- Spraying the feed stockpile with water prior to being fed into the screen.

- Use of dust suppression on stockpiles as necessary.
- 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.
- If fitted, use of hydraulically angle-adjustable stockpiling conveyors to minimise drop heights.
- If fitted, belt sprayers will be employed to dampen crushed material as necessary.

The dust control techniques described above are in line with best available technology and practice as detailed in the Process Guidance Note 3/16(12) Statutory Guidance for Mobile Crushing and Screening (DEFRA, 2012).

4.2 Noise emissions

General noise is expected during the operation of the mobile plants. Noise emissions shall be managed in accordance with the *Environmental Protection (Noise) Regulations* 1987 (WA).

Any impacts on environmental noise sensitive receptors (situated in close proximity to the proposed mobile plant location) shall be subject to a risk assessment and appropriate controls implemented. Potential sensitive receptors to be assessed include significant fauna locations (eg roosts, nesting beaches).

For sensitive land uses as defined in the Environment Protection Authority document titled "Guidance for the Assessment of Environmental Factors: Separation Distances between Industrial and Sensitive Land Uses", mobile plants will be located at least 1000m away. Sensitive land uses are defined as residential developments (not mining camps), hospitals, hotels, motels, hostels, caravan parks, schools, nursing homes, child care facilities, shopping centres, playgrounds and some public buildings.

4.3 Light emissions

Operation shall mostly occur during daylight hours when there shall be no light emissions.

If operations are required to be undertaken during night near a light sensitive receptor, operation of the plant shall be subject to a risk assessment. Potential sensitive receptors to be assessed include accommodation villages, residential areas, public areas such as tourist locations and significant fauna locations (eg roosts, nesting beaches).

4.4 Stormwater management and drainage

There shall be no direct stormwater discharges to land or water from the operation of mobile plants.

Mobile plants shall be situated in a suitable location such that:

- They are located at least 50 meters from any permanent water body.
- The mobile plant area is contained so no contaminated runoff (any waste listed in *Environmental Protection (Unauthorised Discharge) Regulations 2004*) leaves the premises. In the event that stormwater became contaminated with hydrocarbons, contaminated water will be collected in sumps and removed via truck to a suitably licensed disposal/remediation facility.
- Uncontaminated stormwater from the surrounding areas shall be diverted around the mobile plant area.

The material produced for use shall be stockpiled within the mobile plant area so that stormwater management practices implemented also control material stockpile areas.

4.5 Solid and liquid waste

There are no solid or liquid wastes expected to be generated during the operation of mobile plants.

Any putrescible wastes generated by personnel shall be managed in accordance with individual sites' waste management plans and disposed of in licensed facilities. Existing toilet facilities shall be used.

4.6 Hydrocarbon and chemical storage

Hydrocarbons and chemicals used in the operation of mobile plants shall be managed using the following control measures:

- Hydrocarbon storage shall be managed as per existing Part V licence conditions. Current standard Part V licence conditions for chemical storage onsite are below:

    - The licensee shall store environmentally hazardous chemicals including, but not limited to, fuel, oil or other hydrocarbons (where the total volume of each substance stored on the premises exceeds 250 litres) within low permeability (10-9 m/s or less) compound(s) designed to contain not less than 110% of the volume of the largest storage vessel or inter-connected system, and at least 25% of the total volume of substances stored in the compound.

    - The compound(s) described in condition above shall:

      - be graded or include a sump to allow recovery of liquid;

      - be chemically resistant to the substances stored;

      - include valves, pumps and meters associated with transfer operations wherever practical. Otherwise the equipment shall be adequately protected (e.g. bollards) and contained in an area designed to permit recovery of chemicals released following accidents or vandalism;

      - be designed such that jetting from any storage vessel or fitting will be captured within the bunded area [see for example Australian Standard 1940-2004 Section 5.8.3 (h)];

      - be designed such that chemicals which may react dangerously if they come into contact, are in separate bunds in the same compound or in different compounds; and

      - be controlled such that the capacity of the bund is maintained at all times (e.g. regular inspection and pumping of trapped uncontaminated rain water).

    - The licensee shall as soon as practicable recover, or remove and dispose of, any liquid resulting from spills or leaks of chemicals including fuel, oil or other hydrocarbons, from inside or outside the low permeability compound(s).

- All storage containers and areas shall be appropriately labelled, as required by relevant legislation.
    - *Dangerous Goods Safety Act 2004.*
    - *Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007.*
- Material Safety Data Sheets shall be made available and accessible for reference.
- All refuelling and servicing shall require the use of drip trays or absorbent matting to contain potential spills and drips.

Internal procedures are in place to ensure spills are prevented as much as possible. Any spills that do occur are managed using the three C's approach 1) Controlling the spill 2), containing the spill and 3) cleaning up the spill as soon as practicable. Spill kits will be located near all high risk contamination points so that they are available for immediate use.

4.7 Native vegetation

Where possible, mobile plants shall be established in previously cleared areas. If clearing of native vegetation is required, it shall be done so in accordance with relevant native vegetation clearing legislation, for example in accordance with Part IV Ministerial Statement or Native Vegetation Clearing Permit (NVCP) requirements.

4.8 Decommissioning and Rehabilitation

Mobile plants shall be decommissioned in line with the Rio Tinto standards and any site specific management plans which may apply. Rehabilitation of areas used by mobile plants (particularly borrow pit areas) shall be undertaken progressively or in line with site specific rehabilitation plans. Previously stockpiled topsoil and vegetation shall be used to promote rehabilitation.

4.9 Complaints Management

Any complaint received related to dust or noise will be managed through the HSEQ Management System, which provides accountabilities for dealing with issues, facilitates action and tracks completion to ensure complaints are appropriately managed and resolved.

5 References

Australian Standard: AS 1940-2004: The storage and handling of flammable and combustible liquids.

Dangerous Goods Safety Act 2004.

Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007.

Environmental Protection Act 1986 (WA).

Environmental Protection Regulations 1987 (WA).

Environmental Protection (Noise) Regulations 1987 (WA).

Environmental Protection (Unauthorised Discharge) Regulations 2004

Rio Tinto HSEQ Management System Standard [MS001] v2.0, 2010.

(DEFRA) UK Department for Environment Food and Rural Affairs, *Process Guidance Note 3/16(12) Statutory Guidance for Mobile Crushing and Screening*, 2012.