

PART A - PROPONENT AND PROPOSAL INFORMATION

1 PROPONENT AND PROPOSAL INFORMATION

1.1 Proponent

Name	Hamersley Iron Pty Limited
Joint Venture parties (if applicable)	
Australian Company Number (if applicable)	004 558 276
Postal Address (where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)	GPO Box A42 Perth WA 6837
Key proponent contact for the proposal: <ul style="list-style-type: none">• name• address• phone• email	Tammy Souster Senior Advisor Environmental Approvals GPO Box A42 Perth WA 6837 T: +61 (08) 6211 6985 tammy.souster@riotinto.com

1.2 Proposal

Title	Marandoo Iron Ore Project Revised Proposal.
Description	The Proponent, Hamersley Iron Pty Limited, requires an increase in the authorised clearing limit to support ongoing operations at the Marandoo Mine. The proposal is also seeking minor changes to Schedule 1 of Marandoo and rationalisation of the three existing Ministerial Statements related to Marandoo (MS 286, MS 598 and MS 833).
Extent (area) of proposed ground disturbance.	The Proposal seeks additional clearing of 400 ha. This referral is not seeking approval for activities already authorised as part of the existing operations.
Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	Production commenced at the existing AWT Marandoo mining operations in 1993 and in 2011 for the BWT mining operations.
Details of any staging of the proposal.	The Proposal is not staged.
Is the proposal a strategic proposal?	No.
Is the proponent requesting a declaration that the proposal is a derived proposal?	No.
Please indicate whether, and in what way, the proposal is related to other proposals in the region.	NA

Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?	<p>The Marandoo Iron Ore Mine is located on Mineral Lease AML70/272 in accordance with the <i>Iron Ore (Hamersley Range) Agreement Act 1963 (WA)</i>. This was excised from the Karijini National Park in 1991.</p> <p>The infrastructure associated with the Marandoo Project is located on a number of Miscellaneous Licences and General Purpose Leases that were granted under the <i>Mining Act 1978</i>.</p> <p>The current tenure is appropriate tenure for all current and proposed mining activities and mining related infrastructure.</p>
What is the current land use on the property, and the extent (area in hectares) of the property?	The location of Marandoo Mine is remote from neighbouring mining activities.

1.3 Location

Name of the Shire in which the proposal is located.	The Proposal is located in the Shire of Ashburton
For urban areas: <ul style="list-style-type: none"> • street address; • lot number; • suburb; and • nearest road intersection. 	NA
For remote localities: <ul style="list-style-type: none"> • nearest town; and • distance and direction from that town to the proposal site. 	The Marandoo Iron Ore Mine is located approximately 37 km east of Tom Price in the Pilbara region of Western Australia.
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: <ul style="list-style-type: none"> • GIS: polygons representing all activities and named; • CAD: simple closed polygons representing all activities and named; • datum: GDA94; • projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); • format: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD. 	Enclosed

1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	No
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1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.		No	
Is approval required from any Commonwealth or State Government agency or Local Authority for any part of the proposal? If yes, please complete the table below.		No	
Agency/Authority	Approval required	Application lodged	Agency/Local Authority contact(s) for proposal
Minister for Environment; Environmental Protection Authority	<i>Environmental Protection Act 1986 (WA)</i> Part IV: Ministerial Statement	Yes	EPA The Atrium 168 St Georges Tce PERTH WA 6000

PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

2. ENVIRONMENTAL IMPACTS

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

- 2.1 flora and vegetation;
- 2.2 fauna;
- 2.3 rivers, creeks, wetlands and estuaries;
- 2.4 significant areas and/ or land features;
- 2.5 coastal zone areas;
- 2.6 marine areas and biota;
- 2.7 water supply and drainage catchments;
- 2.8 pollution;
- 2.9 greenhouse gas emissions;
- 2.10 contamination; and
- 2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

- (a) the source of the information; and
- (b) the currency of the information.

2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

√ Yes

2.1.2 How much vegetation are you proposing to clear (in hectares)?

The Revised Proposal requires additional clearing of 400 ha.

This proposed clearing is in addition to that already authorised under MS 286 and MS 833.

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

√ No

The clearing required for this Revised Proposal is the subject of this application.

2.1.4 Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

√ Yes

Refer to Section 6 of the Revised Proposal Document.

2.1.5 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

√ Yes

A search of Department of Parks and Wildlife (DPaW) records has previously been undertaken as part of the vegetation and flora assessment undertaken for the project (Biota 2008a, Mattiske 1992).

2.1.6 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

√ Yes

Five Priority Flora records are considered to be of relevance to the Proposal:

- *Indigofera ixocarpa* (Priority (P) 2);
- *Goodenia lyrata* (P3);
- *Rhagodia* sp. Hamersley (M.E. Trudgen 17794);
- *Goodenia nuda*; and
- *Eremophila magnifica* subsp. *Magnifica*.

Refer to Section 6 of the Revised Proposal Document.

2.1.7 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

Not applicable.

2.1.8 What is the condition of the vegetation at the site?

The vegetation condition is considered be in very good to excellent condition despite evidence of weed invasion. Refer to Section 5 of the Revised Proposal Document.

2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

√ Yes

2.2.2 Describe the nature and extent of the expected impact.

The Revised Proposal will result in the additional clearing of up to 400 ha of potential fauna habitat; therefore habitat loss is likely to be the biggest threat to fauna.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

√ Yes Refer to Section 7 of the Revised Proposal Document.

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

√ Yes A search of DPaW records was undertaken as part of the terrestrial fauna assessment undertaken for the Project (Biota 2008b, Ninox 1992).

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

√ Yes Refer to the Revised Proposal Document – Section 7.

2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

√ Yes Unnamed natural watercourse.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

√ No

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

√ No

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

√ No

2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

√ No

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland	✓ No
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	✓ No
Perth's Bush Forever site	✓ No
Environmental Protection (Swan & Canning Rivers) Policy 1998	✓ No
The management area as defined in s4(1) of the <i>Swan River Trust Act 1988</i>	✓ No
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA)	No

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

✓ Yes [The Proposal is located adjacent to the Karijini National Park.](#)

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

✓ No

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

✓ No

2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

✓ No

2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

✓ No

2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?

✓ No

2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?

✓ No

2.7 Water Supply and Drainage Catchments

2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

√ Yes

The Proposal is located within the Pilbara Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914*.

2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

√ No

2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

√ No

2.7.4 Is there sufficient water available for the proposal?

√ Yes

2.7.5 Will the proposal require drainage of the land?

√ Yes

The existing Marandoo below water table mining operation includes the option of surface water discharge to a local watercourse.

This Revised Proposal will not result in any change to this activity as assessed and approved under MS 286 and MS 833.

2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

√ Yes

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

NA to this Revised Proposal

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

Dewatering water is used on-site in the first instance to supply water for operational purposes (processing and dust suppression).

2.8 Pollution

2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

√ Yes

Refer to Revised Proposal Document Section 9

2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

√ Yes

Operating Licence L6869/1992/11 for processing, dewatering, screening, sewage treatment facility and landfill.

Operating Licence L8507/2010/1 for the Marandoo Camp sewage treatment facility.

2.8.3 Will the proposal result in gaseous emissions to air?

√ Yes The Proposal will generate Greenhouse Gas (GHG) emissions. Refer to Revised Proposal Document Section 9.

2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

√ No No modelling of projected emissions was undertaken as emissions generated by the Proposal are not expected to be greater than or different to those from existing operations.

Emissions have been, and will continue to be, managed under the existing operating licence, the *Clean Energy Act 2011* (Cwth) and the *National Greenhouse and Energy Reporting Act 2007* (Cwth).

2.8.5 Will the proposal result in liquid effluent discharge?

√ No

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

√ No

2.8.7 Will the proposal produce or result in solid wastes?

√ Yes The Revised Proposal will not result in wastes greater than or different to those from existing operations. Refer to Revised Proposal Document Section 9.

2.8.8 Will the proposal result in significant off-site noise emissions?

√ No Noise emissions are not expected to be significantly greater than or different to those of existing operations.

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

√ Yes Noise emissions will be managed under the Environmental Protection (Noise) Regulations 1997. However, previous Noise Assessments have shown that noise levels at the only sensitive receptor, the village, will not exceed Environmental Protection (Noise) Regulation thresholds.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other “sensitive premises” such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

√ No

The location of the Marandoo Mine is remote, with no neighbouring mining activities. The nearest town, Tom Price, is located approximately 37 km east of Marandoo.

Therefore, impacts on sensitive receptors from nuisance dust, noise or other air quality impacts are expected to be limited.

The Mine is not expected to result in any direct impacts to the adjacent Karijini National Park. Impacts to visual amenity have been assessed for the existing AWT and BWT projects at Marandoo (MS 286 and MS 833 respectively).

- 2.8.11 If the proposal has a residential component or involves “sensitive premises”, is it located near a land use that may discharge a pollutant?

√ Not Applicable

2.9 Greenhouse Gas Emissions

- 2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

√ No

- 2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

2.10 Contamination

- 2.10.1 Has the property on which the proposal is to be located been used in the past for activities which may have caused soil or groundwater contamination?

√ Yes

The Proposal will be developed as a revision to the existing AWT and BWT mining operations at Marandoo.

- 2.10.2 Has any assessment been done for soil or groundwater contamination on the site?

√ Yes

This is not relevant to the Revised Proposal. Groundwater sampling was completed to support the BWT mining approved under MS 833.

- 2.10.3 Has the site been registered as a contaminated site under the *Contaminated Sites Act 2003*? (on finalisation of the CS Regulations and proclamation of the CS Act)

√ No

2.11 Social Surroundings

- 2.11.1 Is the proposal on a property which contains or is near a site of Aboriginal ethnographic or archaeological significance that may be disturbed?

√ Yes

Refer to Section 9 of the revised Proposal Document.

- 2.11.2 Is the proposal on a property which contains or is near a site of high public interest (e.g. a major recreation area or natural scenic feature)?

√ Yes

The Proposal is an extension to an existing remote mining operation, located adjacent to the Karijini National Park and visible from the Mt Bruce public lookout.

2.11.3 Will the proposal result in or require substantial transport of goods, which may affect the amenity of the local area?

√ No

3. PROPOSED MANAGEMENT

3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

- | | |
|--|---|
| 1. The precautionary principle. | <input checked="" type="checkbox"/> Yes |
| 2. The principle of intergenerational equity. | <input checked="" type="checkbox"/> Yes |
| 3. The principle of the conservation of biological diversity and ecological integrity. | <input checked="" type="checkbox"/> Yes |
| 4. Principles relating to improved valuation, pricing and incentive mechanisms. | <input checked="" type="checkbox"/> Yes |
| 5. The principle of waste minimisation. | <input checked="" type="checkbox"/> Yes |

[Refer to Section 5 of the Revised Proposal Document](#)

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

√ Yes

3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

√ Yes

[Refer to Section 4 of the Revised Proposal Document.](#)