

EPBC Act referral



Australian Government

Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Title of proposal	2021/9035 - Iron ore mine, Hope Downs 2 Proposal
Section 1	
Summary of your proposed action	
1.1 Project industry type	Mining
1.2 Provide a detailed description of the proposed action, including all proposed activities	
<p>The Proposed Action is located in the Pilbara region of Western Australia and includes a Conceptual Footprint of approximately 4,700 ha to support the development, operation and closure of two new above water table (AWT) iron ore deposits, Bedded Hilltop (BHT) and Hope Downs 2 (HD2) within a proposed Development Envelope of approximately 14,085 ha.</p> <p>The Proponent for the Proposed Action is Hamersley HMS Pty Limited, a wholly owned subsidiary of Rio Tinto Iron Ore Group. The Proposed Action includes, but is not limited to the following:</p> <ul style="list-style-type: none">• Development and operation of AWT iron ore deposits: BHT and HD2.• Activities required to facilitate mining which may include, but are not limited to:<ul style="list-style-type: none">o Mineral waste management infrastructure: includes waste dumps, landbridges, low grade ore dumps, and topsoil and sub-soil stockpiles.o New processing infrastructure: including dry processing facilities at HD2 and/or BHT deposits.o Support facilities: including workshops, hydrocarbon storage areas, ANFO facilities, laydown areas, turkeys nests, transfer pads and offices.o Linear infrastructure: including heavy and light vehicle access roads, railway crossing, conveyors, pipelines, power distribution network (including sub-stations), communications distribution network and associated communications infrastructure.o Realignment of approximately 6 km of the Great Northern Highway.o Infrastructure for surface water management: including Pebble Mouse Creek crossings, diversion drains, levees and culverts.o Infrastructure for water supply: including abstraction of groundwater and/ or use of surplus water from local sources and adjacent operations.o Accommodation: including installation of a new construction camp may be required to support the implementation of the HD2 Proposal. <p>The Development Envelope incorporates these components and provides the boundary within which the Proposed Action will be implemented. The Conceptual Footprint shows the approximate location of the Proposed Action elements within the Development Envelope, although this remains flexible to enable adaptability to operational needs. The above actions involve the clearing of native vegetation, construction and operational activities (noise, dust, light, vibrations), vehicle and machinery movements, hazardous waste materials, altered hydrological regimes and production of greenhouse gases. These actions may result in impacts to flora and vegetation, terrestrial fauna, subterranean fauna, inland waters, social surroundings, and increased greenhouse gas emissions.</p> <p>Exclusions</p> <p>The scope of the Proposed Action subject to assessment excludes:</p> <ul style="list-style-type: none">• Low impact activities during the process of the assessment required to inform proposal planning and investigation, including, but not limited to, drilling and associated activities for the purposes of resource evaluation, geotechnical assessment and hydrogeological investigations. These activities will be subject to the relevant provisions under Part V of the Environmental Protection Act 1986 (EP Act) and the Rights in Water and Irrigation Act 1914 (RiWI Act).• Activities that are part of, or required for continuation of, the existing approved operations at HD1 (including Baby Hope) as approved under Ministerial Statement No. 584, 893 and 1025, or other Rio Tinto Iron Ore sites. <p>The Proponent's current operational activities at HD1 (including Baby Hope) are authorised via statutory environmental approvals under Part IV and V of the EP Act and the RiWI Act. The Proponent notes that, whilst the Proposed Action is under assessment, additional approvals or amendments to existing approvals may be required to support the continuation of existing operations that do not relate to the implementation of this Proposed Action. Therefore, the above exclusions are not limited to only those activities already approved but also to activities authorised by existing approvals as they may be amended (including under s45C of the EP Act).</p>	
1.3 What is the extent and location of your proposed action?	
See Appendix B	
1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland)	
The Proposed Action is located within the Shire of East Pilbara, approximately 80 km north-west of Newman in the Pilbara	



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region of Western Australia (Att B, Fig 1).

Mining related activities are the primary land use in the HD2 Proposal region. Existing land uses in the Development Envelope include mineral exploration, mining activities and cultural/recreational activities (predominantly by Traditional Owners) such as camping and hunting. The existing Great Northern Highway runs through the southern section of the Development Envelope.

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

The Proposed Action requires clearing of up to 4,700 ha within the 14,085 ha Development Envelope (Att C, Fig 2). The disturbance footprint is 4,700 ha and disturbance of the remaining 9,385 ha within the 14,085 ha Development Envelope will be avoided.

1.7 Proposed action location

Lot - Hope Downs 1 Mine Access Road, Newman WA 6753. The Proposed Action is centered on deposits located

1.8 Primary jurisdiction Western Australia

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

☐ Yes ☒ No

1.10 Is the proposed action subject to local government planning approval?

☐ Yes ☒ No

1.11 Provide an estimated start and estimated end date for the proposed action

Start Date	01/06/2024
End Date	31/12/2040

1.12 Provide details of the context, planning framework and state and/or local Government requirements

The Proposed Action will be constructed and operated in accordance with Western Australian laws. Western Australian statutory requirements that may be relevant to the Proposed Action are set out below:

- Department of Water and Environmental Regulation (DWER)/Minister for Environment - Proposal approval under Part IV of the EP Act.
- Department of Jobs, Tourism, Science and Innovation (DJTSI)/Minister for Jobs, Tourism, Science and Innovation - Proposal approval under the Iron Ore (Hope Downs) Agreement Act 1992.
- DWER - Works approvals and licences under Part V of the EP Act.
- Department of Biodiversity, Conservation and Attractions (DBCA) - approvals and licences under the Biodiversity Conservation Act 2016.
- DWER - Permits and licences to interfere with the bed and banks of a watercourse where required, take water and manage its use, and construct and alter wells under the RiWI Act.
- Department of Mines, Industry Regulation and Safety (DMIRS) - For any clearing required outside of the Part IV EP Act approval: Native Vegetation Clearing Permits under Part V of the EP Act.
- DMIRS / Minister for Mines and Petroleum - Mining Proposals under the Mining Act 1978 (WA).
- Minister for Aboriginal Affairs - Consent to undertake a purpose that may impact Aboriginal sites under the Aboriginal Heritage Act 1972 (WA).
- Department of Planning, Lands and Heritage (DPLH) - Consideration of proposals to salvage or impact Aboriginal sites under the Aboriginal Heritage Act 1972 (WA) and referrals to the Aboriginal Cultural Material Committee for advice and recommendations.

Not all activities within the list above will necessarily be required.



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1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders

The Proponent has commenced consultation with key stakeholders.

Consultation with decision-making authorities, including DWER; DBCA; DMIRS, Department of Agriculture, Water and the Environment (DAWE), DPLH and key stakeholders, is ongoing.

The most recent pre-referral consultation with EPA Services (DWER) in relation to the HD2 Proposal was held on 17 December 2020.

The Proposed Action is located on land the subject of the following three Native Title determinations:

- Niyiyaparli and Niyiyaparli #3 Native Title determination (WCD2018/008)
- Banjima People Native Title determination (WCD2014/001)
- Ngarlawangga People Native Title determination (WCD2016/007).

The Proponent has commenced consultation with each of the Traditional Owner groups and this consultation will be ongoing during the environmental assessment process.

The Proponent will continue to consult with relevant stakeholders as the environmental assessment process progresses.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project

The key legislative requirements relating to this Proposed Action include assessment under Part IV of the EP Act and consideration of potential impacts to Matters of National Environmental Significance (MNES) protected under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act; this referral).

The Proponent intends to refer the Proposed Action to the WA Environmental Approval Authority (EPA) under section 38 of the EP Act simultaneously. It is expected the Proposed Action will be assessed under the accredited process. The Proponent expects the level of assessment to be a Public Environmental Review and therefore the Environmental Review Document will include a full assessment of relevant factors including MNES.

1.15 Is this action part of a staged development (or a component of a larger project)?

☐ Yes ☒ No

1.16 Is the proposed action related to other actions or proposals in the region?

☒ Yes ☐ No

1.16.1 Identify the nature/scope and location of the related action (Including under the relevant legislation)

The Proposed Action is related to the Hope Downs 1 Proposal (MS 584, MS893) and Baby Hope Proposal (MS1025).

Hope Downs 1 is an iron ore mine located in the Hope Downs region, approximately 75 km north-west of Newman. The Baby Hope Proposal is an expansion of the Hope Downs 1 Project, with the addition of mining the Baby Hope deposit.



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Section 2

Matters of national environmental significance

2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?

☐ Yes ☒ No

2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?

☐ Yes ☒ No

2.3 Is the proposed action likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?

☐ Yes ☒ No

2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

☒ Yes ☐ No

Species or threatened ecological community

Northern Quoll (Att G - Fauna survey Part 1, Section 4.2.2.4, pp 45; Att I - MNES survey, Section 4.2.2, pp 19)

Impact

Potential impacts resulting from the Proposed Action include:

- Clearing areas of denning and foraging habitat.
- Alteration of hydrological regimes from abstraction of water for water supply resulting in changes to fauna habitat.
- Interaction with vehicles, machinery or fencing causing injury or mortality to individuals.

Species or threatened ecological community

Ghost Bat (Att G – Fauna survey Part 1, Section 4.2.2.4, pp 47; Att I – MNES survey, Section 4.2.2, pp 19)

Impact

Potential impacts resulting from the Proposed Action include:

- Clearing areas of breeding and foraging habitat.
- Disturbance to individuals and/or roosts from noise, vibration, dust and light spill.
- Interaction with vehicles, machinery or fencing causing injury or mortality to individuals.

Species or threatened ecological community

Pilbara Leaf-nosed Bat (Att G – Fauna survey Part 1, Section 4.2.2.4, pp 46; Att I – MNES survey, Section 4.2.2, pp 19)

Impact

Potential impacts resulting from the Proposed Action include:

- Clearing areas of breeding and foraging habitat.
- Disturbance to individuals and/or roosts from noise, vibration, dust and light spill.
- Interaction with vehicles, machinery or fencing causing injury or mortality to individuals.

Species or threatened ecological community

Pilbara Olive Python (Att G – Fauna survey Part 1, Section 4.2.2.5, pp 50; Att I – MNES survey, Section 4.2.2, pp 20)



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Impact
Potential impacts resulting from the Proposed Action include: <ul style="list-style-type: none">• Clearing areas of denning and foraging habitat.• Alteration of surface hydrological regimes, resulting in changes to fauna habitat.• Disturbance to individuals and/or habitat from noise and vibration.• Interaction with vehicles, machinery or fencing causing injury or mortality to individuals.
2.4.2 Do you consider this impact to be significant? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Migratory species Oriental Plover (Att G – Fauna survey Part 1, Section 4.2.2.4, pp 48; Att I – MNES survey, Section 4.2.3.1, pp 23)
Impact
Potential impacts resulting from the Proposed Action include: <ul style="list-style-type: none">• Clearing areas of denning and foraging habitat.• Alteration of surface hydrological regimes, resulting in changes to fauna habitat.
2.5.2 Do you consider this impact to be significant? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.7 Is the proposed action likely to be taken on or near Commonwealth land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.9 Is the proposed action likely to have any direct or indirect impact on a water resource from coal seam gas or large coal mining development? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.10 Is the proposed action a nuclear action? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.11 Is the proposed action to be taken by a Commonwealth agency? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area?

☐ Yes ☒ No



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Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

Ecological surveys have been undertaken across the Development Envelope, biological reports are at various stages of preparation. The combined coverage of these surveys has enabled a detailed understanding of the existing flora and terrestrial fauna values.

Flora:

No EPBC Act or State-listed threatened flora species have been recorded within the Development Envelope (Att F - Flora Survey Part 1, Section 5.2, pp 61). A search of the DAWE Protected Matters Search Tool (PMST) identified no flora listed as MNES as potentially occurring in the Development Envelope. Twelve State-listed Priority flora species have been recorded within the Development Envelope.

No listed Weeds of National Significance or Declared Pests were recorded (Att F - Flora survey Part 1, Section 4.2.2.5, pp 58).

Terrestrial fauna:

Four threatened fauna species and one migratory species listed as MNES under the EPBC Act have been recorded or are considered likely to occur in and around the Development Envelope (Att D, Fig 3; Att I - MNES survey, Section 4.2.3.1, pp 21-24)):

- Northern Quoll (*Dasyurus hallucatus*) – Recorded
- Ghost Bat (*Macroderma gigas*) – Recorded
- Pilbara Leaf-nosed Bat (*Rhinonictis aurantia*) – Recorded
- Pilbara Olive Python (*Liasis olivaceous* subsp. *barroni*) – Not recorded, considered likely to occur
- Oriental Plover (*Charadrius veredus*) – Recorded.

A Protected Matters Search Tool report identified an additional four threatened species (Australian Painted Snipe, Curlew Sandpiper, Night Parrot and Greater Bilby) and eight migratory species (Fork-tailed Swift, Common Sandpiper, Common Greenshank, Pectoral Sandpiper, Sharp-tailed Sandpiper, Barn Swallow, Yellow Wagtail, Grey Wagtail) listed as MNES under the EPBC Act; however, these species have not been recorded in the Development Envelope and are considered unlikely to occur based on the absence of suitable habitat (Att I - MNES survey, Appendix D).

Eight broad-scale fauna habitats have been mapped in the Development Envelope, including:

- Minor Drainage – Low value; provides limited foraging and shelter to MNES species
- Gorge/Gully – High value; provides suitable shelter and/or roosting habitat for a number of MNES species
- Breakaway – High value; provides suitable roosting and shelter habitat for a number of MNES species
- Rocky Hill – Moderate value; provides suitable foraging and/or dispersal habitat for some MNES species
- Low Hill and Slopes – Low value; provides little or no suitable habitat for MNES species
- Alluvial Plain – Low value; provides little or no suitable habitat for MNES species
- Mulga Woodland – Low value; provides little or no suitable habitat for MNES species
- Stony Plain – Low value; provides little or no suitable habitat for MNES species.

None of these habitats are restricted to the Development Envelope. The Gorge/Gully and Breakaway habitats in the Pilbara are restricted to the Chichester and Hamersley Ranges, but are well represented in these areas. All other habitat types are relatively common in the region and wider Hamersley subregion.

3.2 Describe the hydrology relevant to the project area (including water flows)

Hydrology:

The Proposed Action is located in proximity to the upper reaches of Weeli Wolli Creek and within the Weeli Wolli Creek catchment that forms part of the Fortescue River Region. This catchment also includes Pebble Mouse Creek, a major tributary of Weeli Wolli Creek.

The nearest significant surface water bodies include Weeli Wolli Spring and Ben's Oasis which are located outside of the Development Envelope (Att C, Fig 2) and contain permanent and semi-permanent pools, considered to be supported by groundwater expression. There are no permanent or semi-permanent pools known within the Development Envelope.

Hydrogeology:

The hydrogeological setting within the Development Envelope comprises the Wittenoom Aquifer at HD2 and the Mineralised Brockman Aquifer at Bedded Hilltop. Groundwater depth is relatively deep, ranging between approximately 25 to 100 m below ground level (bgl) throughout most of the Development Envelope depending on the surface topography. Groundwater depth is shallowest along Pebble Mouse Creek, occurring around 25 to 30 m bgl.



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The Proposed Action is within Fortescue Geology, which is hydraulically disconnected from the aquifers that will be accessed for water supply for the Proposed Action.

3.3 Describe the soil and vegetation characteristics relevant to the project area

Soil:

Soils in the Pilbara are generally shallow, stony soils on hills and ranges and sands on sandplains.

There are ten geological units/soil systems across the Development Envelope (Att F - Flora survey Part 1, Section 2.1.1, pp 4). The majority of the area is within two soil systems:

- Colluvium 38491: Colluvium sheetwash, talus, gravel piedmonts and aprons over and around bedrock; clay-silt sand with sheet and nodular kankar; alluvial and aeolian sand-silt gravel in depressions and broad valleys in Canning Basin; local calcrete and reworked laterite.
- Marra Mamba Iron Formation: Chert, ferruginous chert, jaspilite, banded iron-formation, minor shale, siltstone, mudstone.

Vegetation:

The Proposed Action is situated within the Pilbara bioregion and Hamersley Interim Biogeographic Regionalisation (IBRA) subregion (PIL3), which is described as:

'Dissected bold plateaux and ranges of flat lying, moderately folded sandstone and quartzite with vegetation of Mulga low woodland over tussock grasses occurring on fire textured soils in valley floors, with scattered Snappy gum (*Eucalyptus leucophloia*) over *Triodia brizoides* on skeletal soils of the ranges'.

A total of 23 vegetation units were recorded within the Development Envelope, these were broadly categorised into three landforms types:

- Hills and slopes
- Plains
- Drainage lines.

No Environmentally Sensitive Areas (ESAs) occur within the Development Envelope. The nearest ESA is Hamersley Range National Park (1977 boundary), now referred to as Karijini National Park, approximately 32 km west of the Development Envelope.

No EPBC Act listed Threatened Ecological Communities (TECs) or State-listed TECs have been recorded within 50 km of the Proposed Action (Att F - Flora survey Part 1, Section 5.2, pp 61). Seven State-listed Priority Ecological Communities (PECs) listed under the Biodiversity Conservation Act 2016 (BC Act) (WA) have been recorded within 50 km of the Proposed Action.

Depths to groundwater across the aquifers within the Development Envelope are generally greater than 25 m bgl and are therefore consistently deeper than that which would typically support GDEs.

Vegetation surveys have identified the presence of species which can indicate groundwater dependence, *Eucalyptus camaldulensis* subsp. obtuse and *E. victrix* however, these species are facultative phreatophytes which use groundwater opportunistically but are not confined to environments where groundwater is available. One potential GDE has recently been identified approximately 2.2 km south-east of the HD2 deposit, outside of the Development Envelope, in a hydraulically disconnected aquifer with shallow water tables.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

There are no outstanding natural features or other important or unique values relevant to the Proposed Action.

The nearest outstanding natural feature is Karijini National Park, which is approximately 35 km from the Proposed Action. Karijini National Park is the second largest National Park in WA, covering more than 627,000 ha within the Hamersley subregion of the Pilbara bioregion.

3.5 Describe the status of native vegetation relevant to the project area

Vegetation across the Development Envelope ranges from Excellent to Completely Degraded. Some areas have been degraded from exploration drilling and grazing by cattle and camels in the drainage lines and associated plains. Significant sections of the BHT and HD2 deposits were burnt during a bushfire in 2015 and 2016.

No EPBC Act listed threatened flora or TECs occur in the Development Envelope.

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area

The gradient within the Development Envelope ranges from flat or gently undulating in foot slopes and plains to steep, in association with gorges, gullies and ridges.

3.7 Describe the current condition of the environment relevant to the project area

The Development Envelope includes mostly uncleared land. The condition of native vegetation in the Development



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Envelope is predominantly Excellent to Completely Degraded.

3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

There are no Commonwealth Heritage places or other places recognised as having national heritage value relevant to the Proposed Action.

3.9 Describe any Indigenous heritage values relevant to the project area

The Proposed Action is located on land the subject of the following three Native Title determinations:

- Nyiyaparli People and Nyiyaparli #3 native title determination (WCD2018/008)
- Banjima People native title determination (WCD2014/001)
- Ngarlawangga People native title determination (WCD2016/007).

Heritage surveys to date have recorded cultural heritage values in the proposed Development Envelope including tangible sites (e.g. physical sites such as artefact scatters; quarries; rock shelters; scarred trees; rock art) and intangible values (e.g. mythologies, stories and song lines linked to one or more landscape features).

Some of these places contain heritage features that are considered to be of high archaeological significance such as rock shelters containing potentially datable sub-surface deposits and intact stone features.

Archaeological sites of high cultural significance to the Nyiyaparli Traditional Owners identified to date within the Development Envelope and nearby areas include places that contain pigment rock art which is uncommon in the region, permanent / semi-permanent water sources and places with ceremonial significance.

Sites of high ethnographic significance have been identified nearby including major creek lines and water sources such as Weeli Wolli Creek which feeds into Weeli Wolli Springs and Ben's Oasis. Weeli Wolli Springs, a permanent surface water pool in the Weeli Wolli Creek system, located 8 km outside the Development Envelope is a registered heritage site. Ben's Oasis, Weeli Wolli Creek and Pebble Mouse Creek are also understood to be of high cultural value; however, are not registered sites. Weeli Wolli Creek is also important as a cultural boundary between the Nyiyaparli and Banjima traditional lands.

Broader cultural heritage associations and values are currently being investigated in consultation with the Traditional Owners.

The Proponent is committed to consultation with Traditional Owners to identify places of cultural heritage significance, and to facilitate appropriate management of cultural heritage values. This referral does not contain culturally sensitive information regarding the Nyiyaparli, Banjima and Ngarlawangga People.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area

The Proposed Action is located on Mining Lease M282SA which is approved under the Iron Ore (Hope Downs) Agreement Act 1992.

Some areas of the Proposed Action are located on Exploration Licences held under the Mining Act 1978 (WA). These exploration licences will be converted to appropriate tenure to support development of the Proposed Action.

Third-party tenure within the proposed Development Envelope will be subject to the grant of additional tenure or subject to access agreements prior to the commencement of ground disturbing activities in these areas.

3.11 Describe any existing or any proposed uses relevant to the project area

Existing land uses in the Development Envelope include mineral exploration, mining activities and cultural/recreational activities (predominantly by Traditional Owners) such as camping and hunting. The existing Great Northern Highway runs through the southern section of the Development Envelope.



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Section 4

Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

The Proposed Action has been designed through multiple rounds of review and revision to avoid and minimise impacts to key environmental receptors and places of high cultural significance. In addition, further proposed mitigations will be developed during the impact assessment. These are summarised below:

Avoid:

- When considering the Proposal layout, the Proponent has and will continue to avoid, as far as practicable, disturbance to high value fauna habitat.
- Disturbance of critical habitat for Threatened fauna will be avoided where possible.
- Mining will occur AWT only and will therefore avoid the need for mine dewatering or surplus water discharge.
- As far as practicable, infrastructure and landforms will be placed to avoid disturbance of natural surface water flows and interactions with significant water features.
- Barbed wire fencing will be avoided unless required by legislation.

Minimise:

- Where it cannot be avoided, clearing of critical habitat for Threatened fauna species will be minimised where possible;
- The Proponent will minimise impacts to the flow paths of major creek lines and tributaries;
- Where the use of barbed wire fencing cannot be avoided, the Proponent will install reflectors to deter fauna interaction.
- Groundwater abstraction will be limited to that required for construction and operational water supply.

Rehabilitate:

- The Proponent will prepare and implement a Closure Plan, in accordance with the joint DMIRS Statutory Guidelines for Mine Closure Plans, March 2020 for the Proposal.
- Rehabilitation activities will be undertaken progressively over the life of the mine as opportunities arise.

Offsets:

- If significant residual impacts are predicted following the application of all avoidance and management measures, appropriate offsets will be provided. This will be determined based on the outcomes of the detailed impact assessment.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

Following the application of the management measures described above, the following outcomes are predicted for the five MNES known or likely to occur within the Development Envelope:

- Habitat critical to the survival of the Northern Quoll, Ghost Bat, Pilbara Leaf-nosed Bat, Pilbara Olive Python and Oriental Plover will continue to be available for these species in the Development Envelope and across the region; such habitat is also extensively represented in the Hamersley subregion and in the nearby conservation estate of Karijini National Park.
- Habitat connectivity will be largely maintained, which will avoid fragmentation of populations.
- Important populations of Northern Quoll, Ghost Bat and Pilbara Leaf-nosed Bat will continue to persist in the Development Envelope and region.
- The availability and potential use of caves by Ghost Bats within the Development Envelope will persist.
- The one recorded Ghost Bat maternity roost will not be directly impacted (Att H - Ghost Bat Caves Characteristics survey, pp 4).



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Section 5

Conclusion on the likelihood of significant impacts

5.1 You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled action

- ☐ World Heritage properties
- ☐ National Heritage places
- ☐ Wetlands of international importance (declared Ramsar wetlands)
- ☒ Listed threatened species or any threatened ecological community
- ☐ Listed migratory species
- ☐ Marine environment outside Commonwealth marine areas
- ☐ Protection of the environment from actions involving Commonwealth land
- ☐ Great Barrier Reef Marine Park
- ☐ A water resource, in relation to coal seam gas development and large coal mining development
- ☐ Protection of the environment from nuclear actions
- ☐ Protection of the environment from Commonwealth actions
- ☐ Commonwealth Heritage places overseas
- ☐ Commonwealth marine areas

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action

The Proponent is currently in the process of assessing the potential environmental impacts of the Proposed Action. An initial analysis concludes the Proposed Action has the potential to result in impacts to listed threatened species and that further work is required to both better understand and avoid/reduce impacts. Therefore, the Proponent is adopting a precautionary approach and suggesting the Proposed Action be considered a Controlled Action, with threatened species and communities the controlling provision (under s18 and 18A of the EPBC Act). This will facilitate further assessment of the Proposed Action under the EPBC Act. The Proponent considers this assessment could be undertaken by the WA EPA as an accredited assessment under s. 87 of the EPBC Act, at the level of 'Public Environmental Review.'



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Section 6

Environmental record of the person proposing to take the action

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail

Yes, Hamersley HMS Pty Ltd has a satisfactory record of responsible environmental management. Proponent is a subsidiary of Rio Tinto. In the Pilbara region of WA, Rio Tinto have over 50 years' experience responsibly mining iron ore. Rio Tinto have a network of 15 mines, including joint ventures, as well as port facilities, 1,700 km of rail network and associated infrastructure, resulting in producing more than 300 million tonnes of iron ore annually. Over decades of operational mining in the Pilbara region, Rio Tinto have used their experience to develop and refine environmental management policies, systems and procedures. Such environmental policies, systems and procedures are successfully applied at the company's existing Pilbara iron ore mine sites. The key components of Rio Tinto's environmental management approach that are applicable to the Proposed Action include Rio Tinto's HSECQ Policy, Environmental Management System and Environmental Management Plan.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application

No proceedings have been taken against the Proponent or are known to be in the process of being taken against the Proponent, under the EPBC Act or any State or Territory law for the protection of the environment.

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

☒ Yes ☐ No

6.3.1 If the person taking the action is a corporation, provide details of the corporation's environmental policy and planning framework

The Rio Tinto Iron Ore HSECQ Policy is the guiding document for environmental management and provides context and direction for continuous improvement (Att E - HSECQ Policy).

Rio Tinto's iron ore mines in the Pilbara region operate under an EMS that is a continuous improvement model, covering systematic assessment of environmental risk and legal requirements and the development of objectives and targets for improvement, as well as systems for training, operational control, communication, emergency response, corrective actions, audits and review. The Proposed Action will be undertaken in accordance with both the HSECQ Policy and the EMS.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

☒ Yes ☐ No

6.4.1 EPBC Act No and/or Name of Proposal

- Hamersley HMS Pty Ltd has previously referred one other iron ore mining project in the Pilbara under the EPBC Act:
- 2008/4636 Development of the Hope Downs 4 Iron Ore Mine and Associated Infrastructure.



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 7

Information sources

Reference source

Protected Matters Search Tool (DAWE 2020)

Reliability

High – database managed by DAWE

Uncertainties

May include old records, inferred species distributions and habitat preferences.



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 8
Proposed alternatives
Do you have any feasible alternatives to taking the proposed action? Yes <input checked="" type="checkbox"/> No



Section 9

Person proposing the action

9.1.1 Is the person proposing the action an organisation or business?

Y Yes N No

Organisation

Organisation name (as registered for ABN/ACN)

Hamersley HMS Pty Ltd

Business name

ABN

51115004129

ACN

Business address

152-158 St Georges Terrace, Perth, 6000, WA, Australia

Postal address

Main Phone number

08 9327 2000

Fax

Primary email address

Sally.Pickard@riotinto.com

Secondary email address

9.1.2 I qualify for exemption from fees under Regulation 5.23(1)(ii) of the EPBC Regulations because I am: N Small business

Y Not applicable

9.1.2.2 I would like to apply for a waiver of full or partial fees under Regulation 5.21A of the EPBC Regulations

N Yes Y No

9.1.3 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)

First name Rowena Last name Albones

Job title

Director

Phone

Mobile

Fax

Email

Sally.Pickard@riotinto.com

Primary address

GPO Box A42, Perth, 6837, WA, Australia

Address

Declaration: Person proposing the action (To be signed by the person at 9.1.3)

I, ROWENA JANE ALBONES acting on behalf of HAMERSLEY HMS Pty Ltd

_____, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity.

Signature: _____

Date: 28/9/21

I, ROWENA JANE ALBONES acting on behalf of HAMERSLEY HMS Pty Ltd

_____, the person proposing the action, consent to the designation of ROWENA JANE ALBONES as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature: _____

Date: 28/9/21



Proposed designated proponent

9.2.1 Is the proposed designated proponent an organisation or business?

Y Yes N No

Organisation

Organisation name (as registered for ABN/ACN) Hamersley HMS Pty Ltd
Business name
ABN 51115004129
ACN
Business address 152-158 St Georges Terrace, Perth, 6000, WA, Australia
Postal address
Main Phone number 08 9327 2000
Fax
Primary email address Sally.Pickard@riotinto.com
Secondary email address

9.2.2 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)

First name Rowena Last name Albones
Job title Director
Phone 9327 2000
Mobile
Fax
Email Sally.Pickard@riotinto.com
Primary address GPO Box A42, Perth, 6837, WA, Australia
Address

Declaration: Proposed Designated Proponent

I, ROWENA JANE ALBONES acting on behalf of HAMERSLEY HMS Pty Ltd, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature: [Signature] Date: 28/9/21



Referring party (person preparing the information)	
9.3.1 Is the referring party an organisation or a business? Y Yes N No	
Organisation	
Organisation name (as registered for ABN/ACN)	Hamersley HMS Pty Ltd
Business name	
ABN	51115004129
ACN	
Business address	152-158 St Georges Terrace, Perth, 6000, WA, Australia
Postal address	
Main Phone number	08 9327 2000
Fax	
Primary email address	Sally.Pickard@riotinto.com
Secondary email address	
9.3.2 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)	
First name	Sally
Last name	Pickard
Job title	Senior Environmental Approvals Advisor
Phone	+61 439 579 513
Mobile	
Fax	
Email	sally.pickard@riotinto.com
Primary address	GPO Box A42, Perth, 6837, WA, Australia
Address	
Declaration: Referring party (person preparing the information)	
I, <u>SALLY PICKARD</u>	
_____, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.	
Signature: <u>SA Pickard.</u>	Date: <u>28/9/21</u>



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Appendix A

Attachment

Document Type	File Name
action_area_images	Att B - Figure 1 - HD2 Regional location of the Proposed Action.pdf
action_area_images	Att C - Figure 2 - HD2 Conceptual footprint.pdf
action_area_images	Att D - Figure 3 - HD2 MNES records.pdf
supporting_tech_reports	Att H - HD2 Ghost Bat Cave Characteristics 2020.pdf
supporting_tech_reports	Att I - HD2 MNES Survey 2019.pdf
supporting_tech_reports	Att G - HD2 Fauna Survey 2019 Part1.pdf
supporting_tech_reports	Att G - HD2 Fauna Survey 2019 Part2.pdf
supporting_tech_reports	Att G - HD2 Fauna Survey 2019 Part3.pdf
supporting_tech_reports	Att G - HD2 Fauna Survey 2019 Part4.pdf
flora_fauna_investigation	Att F - HD2 Detailed Flora Survey 2019 Part1.pdf
flora_fauna_investigation	Att F - HD2 Detailed Flora Survey 2019 Part2.pdf
flora_fauna_investigation	Att F - HD2 Detailed Flora Survey 2019 Part3.pdf
flora_fauna_investigation	Att F - HD2 Detailed Flora Survey 2019 Part4.pdf
flora_fauna_investigation	Att F - HD2 Detailed Flora Survey 2019 Part5.pdf
flora_fauna_investigation	Att F - HD2 Detailed Flora Survey 2019 Part6.pdf
corp_env_policy_docs	Att E - Rio Tinto_HSEC_Policy.pdf

Appendix B

Coordinates

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