



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5697/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

1.3. Property details

Property: Iron Ore (Hamersley Range) Agreement Act 1963, Mineral Lease 4SA (AML 70/4)
Local Government Area: Shire of Ashburton
Colloquial name: Caliwingina Creek Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
30		Mechanical Removal	Mineral Exploration and Hydrogeological Investigations

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 May 2018

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The vegetation of the application area is broadly mapped as the following Beard vegetation association: 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana* (GIS Database).

Flora and vegetation surveys were conducted over the amendment area by Astron (2011) and Rio Tinto (2014; 2015) and have been consolidated by Rio Tinto (2018) for this report. The following six vegetation associations were recorded within the amendment area (Rio Tinto, 2018):

Vegetation of Minor Creek Lines/Drainage

MnC01 - *Corymbia hamersleyana* scattered low trees to low open woodland over *Acacia tumida* var. *pilbarensis* and *A. pyrifolia* scattered tall shrubs to tall open scrub over *Tephrosia rosea* var. *glabrior* scattered low shrubs to low shrubland over *Triodia epactia* very open hummock grassland to open hummock grassland

Vegetation of Medium Creek Lines

MeC01 - *Eucalyptus victrix* and *Corymbia hamersleyana* low open woodland to low woodland over *Tephrosia rosea* var. Fortescue creeks (M.I.H. Brooker 2186) low open shrubland over *Cymbopogon ambiguus* scattered tussock grasses.

Vegetation of Mid and Lower Hill Slopes

HSm101 - *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* scattered low trees to low open woodland over *Triodia wiseana* hummock grassland, sometimes mixed with *Triodia melvillei* or *Triodia epactia*.

Vegetation of Upper Hill Slopes/Crests

HSuC01 - *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* scattered low trees to low open woodland over mixed *Acacia* species open shrubland to shrubland over *Triodia wiseana* open hummock grassland to hummock grassland, sometimes mixed with *Triodia melvillei* and scattered tussock grasses to very open tussock grassland of mixed species.

Vegetation of Floodplains/Drainage Plains

FP03 - *Corymbia hamersleyana* scattered low trees to low open woodland, sometimes with *Eucalyptus gamophylla* over *Acacia trachycarpa* low shrubland to tall open scrub over *Triodia epactia* scattered hummock grasses to hummock grassland with *Themeda triandra* and *Eulalia aurea* scattered tussock grasses to very open tussock grassland; and

FP05 - *Corymbia hamersleyana* and *Eucalyptus gamophylla* low open woodland over *Acacia dictyophleba*, *Acacia tumida* var. *pilbarensis* and *Acacia elachantha* tall shrubland over *Senna artemisioides* subsp. *oligophylla* and *Senna glutinosa* subsp. *glutinosa* scattered shrubs to shrubland over *Triodia epactia* and *T. melvillei* open hummock grassland with *Eulalia aurea* and *Chrysopogon fallax* open tussock grassland.

Clearing Description	Caliwingina Creek Project. Hamersley Iron Pty Ltd proposes to clear up to 30 hectares of native vegetation within a boundary of approximately 1,026 hectares, for the purposes of mineral exploration and hydrogeological investigations. The project is located approximately 88 kilometres north-west of Tom Price, within the Shire of Ashburton.
Vegetation Condition	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994); To: Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).
Comment	The vegetation condition was assessed using aerial photographs of the application area and the consolidated flora surveys by Rio Tinto (2018). Clearing permit CPS 5697/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 5 September 2013 and was valid from 28 September 2013 to 31 July 2025. The permit authorised the clearing of up to 3.5 hectares of native vegetation within a boundary of approximately 8.4 hectares, for the purposes of mineral exploration and hydrogeological investigations. CPS 5697/2 was granted on 30 October 2014, amending the permit to increase the amount of authorised clearing to 10 hectares, increase the permit boundary to 151 hectares, and amend Conditions relating to rehabilitation requirements. On 22 March 2018, the Permit Holder applied to amend CPS 5697/2 to increase the amount of clearing authorised to 30 hectares, and to increase the permit boundary to approximately 1,026 hectares. The Permit Holder has also applied to change the reporting periods and dates and extend the duration of the permit.

3. Assessment of application against Clearing Principles

Comments

Hamersley Iron Pty Ltd has applied to increase the area permitted to clear from 10 hectares to 30 hectares, and to increase the permit boundary from 151 hectares to approximately 1,026 hectares. The amendment also includes amending the reporting period, annual reporting date and extend the duration of the permit.

A consolidated vegetation and flora survey report by Rio Tinto (2018) identified no Threatened flora, Threatened Ecological Communities, Priority flora, Priority Ecological Communities or significant fauna within the amended boundary area (GIS Database). The vegetation unit 'HSuC01' is considered to be of significance as it could be classified as 'hill-top floras, Hamersley Range' ecosystem at risk (Rio Tinto, 2018). There is approximately 89 hectares of this vegetation type mapped within the amendment permit boundary. The proposed clearing of 30 hectares of native vegetation is unlikely to impact the conservation significance of this vegetation type.

Six Priority flora species were identified as likely to occur within the amendment area (Rio Tinto, 2018). Given that these species have a broad distribution within the local and regional area, and have been recorded in high numbers in the Rio Tinto database and on Naturemap (Rio Tinto, 2018), the proposed clearing of 30 hectares within a boundary of approximately 1,026 hectares is unlikely to impact the conservation significance of these species.

There are several small to medium creeklines within the additional area (GIS Database). Rio Tinto (2018) advise that the vegetation type MeC01 contains patches of *Eucalyptus camaldulensis*, which is considered to be a dominant component of riparian communities, and groundwater dependent (ANBG, 2018). The clearing of established trees and shrubs within the river banks could cause further erosion and will remove important fauna refuge. Given that the clearing of native vegetation will be increased threefold from 10 hectares to 30 hectares, further impacts to riparian vegetation within the application area may be minimised by the implementation of a vegetation management condition.

Rapallo (2012) identified three broad fauna habitats occurring within the amendment area; Scree/Hill Slope, Valley, and Drainage. The Western Pebble-mound Mouse (*Pseudomys chapmani*) (Priority 4) has been identified as likely to utilise the amendment area, however this species has a large distribution with extensive habitat adjacent to the amendment area and in the greater Pilbara region (Rio Tinto, 2018). Several fauna species of conservation significance have the potential to occur within the application area, based on known distributions and available habitats (Rio Tinto, 2018). However, the majority of these species are highly mobile and unlikely to be significantly impacted by the proposed additional clearing.

The amended area is situated within the Priority 1 and Priority 2 areas of the Millstream Water Reserve (GIS Database). The Department of Water and Environmental Regulation (DWER) advised that clearing 30 hectares of native vegetation for the purpose of mineral exploration and hydrogeological investigation activities is unlikely to have an impact on groundwater quality, provided clearing activities are conducted in accordance with DWER guidelines and advice (DWER, 2018).

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision reports CPS 5697/1 and 5697/2.

Methodology DWER (2018)
Rapallo (2012)
Rio Tinto (2018)

GIS Database:

- Hydrography, Linear
- Imagery
- Landsystem Rangelands
- Pre-European Vegetation
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffered
- Threatened and Priority Flora
- Threatened Fauna

Planning Instrument, Native Title, previous EPA decision or other matter.

Comments

There are three Native Title claims over the area under application (DPLH, 2018). These claims have been registered with the National Native Title Tribunal on behalf of the claimant groups. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2018). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The amendment application was advertised on 2 April 2018 by the Department of Mines, Industry Regulation and Safety, inviting submissions from the public. One submission was received in relation to this application stating no objection to the proposed amendments.

Methodology DPLH (2018)

4. References

- ANBG (2018) CSIRO Taxon Attribute Profiles – *Eucalyptus camaldulensis*. Australian National Botanic Gardens. <https://www.anbg.gov.au/cpbr/WfHC/Eucalyptus-camaldulensis/> (Accessed 5 March 2018).
- Astron (2011) Caliwingina Vegetation and Flora Survey. Report prepared for Rio Tinto Iron Ore, by Astron Environmental Services, 2011.
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 4 March 2018).
- DWER (2018) Advice received in relation to Clearing Permit Application CPS 5697/3. Department of Water and Environmental Regulation, Western Australia, August 2017.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Rapallo (2012) Terrestrial Fauna Survey of the Caliwingina Project Area for Rio Tinto Iron Ore. Report prepared for Rio Tinto Iron Ore, by Rapallo Group, 2012.
- Rio Tinto (2014) Flora, Vegetation and Fauna Survey for the Caliwingina Area NVCP Supporting Report. Rio Tinto Iron Ore, July 2014.
- Rio Tinto (2015) Metadata Statement SO-14-12587 Mt Pynton Rare Flora Survey. Rio Tinto Iron Ore, 2015.
- Rio Tinto (2018) Desktop Flora, Vegetation and Fauna Habitat Assessment for Mt Pynton and Caliwingina Gap 4. Native Vegetation Clearing Permit – Supporting Report, March 2018.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2017) **Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia**):-

T	Threatened species: Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora). Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the <i>Wildlife Conservation Act 1950</i> . Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the <i>Wildlife Conservation Act 1950</i> . The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.
CR	Critically endangered species Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EN	Endangered species Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
VU	Vulnerable species Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EX	Presumed extinct species

Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

- IA Migratory birds protected under an international agreement**
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**
Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species:**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species:**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species:**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
- P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

- (d)** Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.
- (e)** Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- (f)** Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g)** Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (h)** Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
- (i)** Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
- (j)** Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.