



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4149/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

1.3. Property details

Property: Iron Ore (Rhodes Ridge) Agreement Authorisation Act 1972;
Temporary Reserve 70/4193
Temporary Reserve 70/4884
Local Government Area: Shire of East Pilbara
Colloquial name: Giles Point Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
60		Mechanical Removal	Mineral exploration

1.5. Decision on application

Decision on Permit Application:
Decision Date:

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description Beard vegetation associations have been mapped for the whole of Western Australia. The following two Beard vegetation associations are located within the application area (GIS Database):

29: Sparse low woodland; mulga, discontinuous in scattered groups; and

82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*.

A flora, vegetation and fauna habitat assessment of the application area was undertaken by Rio Tinto Iron Ore during 26 to 28 August 2015, 14 to 18 September 2015, and 15 to 19 April 2016. A total of 18 vegetation units were identified within the application area (Rio Tinto, 2016):

Vegetation of hills and hill slopes

H1 - *Acacia incurvaneura*, *Acacia catenulata* subsp. *occidentalis* and *Grevillea berryana* tall open shrubland over scattered *Eremophila petrophila* subsp. *petrophila* shrubs over *Eriachne mucronata* and *Paspalidium basicladum* very open tussock grassland over scattered mixed herbs;

H2 - Scattered *Eucalyptus leucophloia* subsp. *leucophloia* low trees over scattered mixed low shrubs over very open *Triodia epactia* hummock grassland;

H3 - *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia deserticola* and *Corymbia hamersleyana* low open woodland over scattered *Dampiera candidans* low shrubs over scattered *Stackhousia* sp. swollen gynophore (W.R. Barker 2041) and *Trachymene oleracea* herbs over scattered *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) hummock grasses; and

H4 - Scattered *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia deserticola* low trees over *Hakea lorea* subsp. *lorea* and *Acacia inaequilatera* open shrubland over *Acacia ancistrocarpa* and *Senna* spp. low open shrubland over *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) open hummock grassland over *Amphipogon sericeus* scattered tussock grasses.

Vegetation of drainage lines

D1 - Scattered *Corymbia hamersleyana* low trees over *Scaevola* sp. and *Androcalva luteiflora* low open shrubland over scattered *Ptilotus nobilis* and *Trachymene oleracea* herbs over *Themeda triandra*, *Enneapogon lindleyanus* and *Eriachne mucronata* very open tussock grassland; and

D2 - *Eucalyptus xerothermica* and *Corymbia candida* low open woodland over *Acacia ayersiana* open shrubland over scattered *Ptilotus obovatus* low shrubs over *Aristida inaequiglumis*, *Enneapogon lindleyanus* and *Themeda triandra* tussock grassland.

Vegetation of plains

P1 - Scattered *Corymbia deserticola* low trees over scattered *Eucalyptus gamophylla* mallees over scattered low shrubs over very open *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) hummock grassland;

P2 - *Acacia ayersiana* low open woodland over *Sida ectogama*, *Maireana tomentosa* subsp. *tomentosa* and *Eremophila forrestii* subsp. *forrestii* low open shrubland over scattered *Triodia melvillei* hummock grasses over *Aristida nitidula* and *Aristida contorta* very open tussock grassland;

P3 - *Acacia aneura*, *Acacia pruinocarpa* and *Eucalyptus xerothermica* low open woodland over *Ptilotus obovatus*, *Ptilotus polystachyus*, *Ptilotus macrocephalus* low open shrubland over scattered *Chrysopogon fallax* tussock grasses over scattered **Bidens bipinnata* and other herbs;

P4 - Scattered *Acacia pteraneura* and *Acacia pruinocarpa* tall shrubs over scattered *Ptilotus obovatus* low shrubs over *Aristida contorta* and *Eragrostis dielsii* very open tussock grassland over scattered mixed herbs;

P5 - *Acacia incurvaneura* and *Acacia pruinocarpa* high open shrubland over scattered *Ptilotus obovatus* low shrubs over *Aristida contorta* and *Eragrostis dielsii* open tussock grassland over *Goodenia prostrata* and *Lepidium echinatum* very open herbs;

P6 - *Acacia aneura* low woodland over scattered *Acacia pruinocarpa* shrubs over *Ptilotus obovatus* and *Solanum lasiophyllum* low open shrubland over *Chrysopogon fallax*, *Panicum effusum* and *Aristida nitidula* very open tussock grassland over *Roebuckiella ciliocarpa*, *Haloragis odontocarpa*, **Bidens bipinnata*, *Stenopetalum anfractum* and *Ptilotus polystachyus* very open herbland;

P7 - Scattered *Acacia aneura* and *Acacia pruinocarpa* tall shrubs over *Eremophila caespitosa*, *Ptilotus schwartzii* and *Sclerolaena tetragona* scattered low shrubs over *Aristida contorta* and *Eragrostis dielsii* very open tussock grassland over scattered mixed herbs;

P8 - Scattered *Acacia aptaneura* and *Acacia aneura* shrubs over *Eriachne flaccida*, *Eragrostis dielsii* and *Eragrostis lanipes* tussock grassland over scattered mixed herbs;

P9 - *Acacia aneura* low open woodland over scattered *Acacia pruinocarpa* tall shrubs over *Ptilotus obovatus*, *Ptilotus polystachyus*, *Ptilotus macrocephalus* and *Maireana tomentosa* subsp. *tomentosa* low open shrubland over *Aristida nitidula*, *Chrysopogon fallax*, *Aristida obscura* open tussock grassland over scattered mixed herbs;

P10 - *Eucalyptus xerothermica* and *Acacia aneura* low woodland over *Ptilotus obovatus* and *Eremophila lanceolata* scattered low shrubs over *Aristida inaequiglumis*, *Chrysopogon fallax* and *Enneapogon lindleyanus* tussock grassland;

P11 - Scattered *Acacia aptaneura*, *Acacia ayersiana* and *Acacia pruinocarpa* over *Triodia melvillei* hummock grassland; and

P12 - *Acacia aptaneura* low open woodland over *Ptilotus obovatus*, *Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90) and *Rhagodia* sp. Hamersley (M. Trudgen 17794) very open shrubland over scattered *Maireana villosa* low shrubs over *Aristida inaequiglumis* and *Themeda triandra* open tussock grassland.

Other mapping units

CL - Previously cleared areas, such as tracks.

* denotes weed species.

Clearing Description	Giles Point Project. Hamersley Iron Pty Ltd proposes to clear up to 60 hectares of native vegetation within a total boundary of approximately 989 hectares, for the purpose of mineral exploration. The project is located approximately 54 kilometres northwest of Newman, in the Shire of East Pilbara.
Vegetation Condition	Excellent: Vegetation structure intact; disturbances affecting individual species, weeds non-aggressive (Keighery, 1994); To: Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).
Comment	Clearing permit CPS 4149/1 was granted by the Department of Mines and Petroleum on 10 February 2011, authorising the clearing of up to 2.1 hectares of native vegetation within a boundary of approximately 25 hectares. On 8 February 2016, the permit holder applied to amend CPS 4149/1 to extend the permit duration by five years to 31 July 2021. However, to allow compliance with rehabilitation conditions the Department of Mines and Petroleum has extended the duration to 31 July 2026. No clearing is to occur after 31 July 2021. An application for an amendment to clearing permit 4149/2 was received on 27 July 2016 to increase the amount of clearing from 2.1 to 60 hectares, increase the clearing permit boundary from 25 to 989 hectares, and amend the expiry date, reporting period and reporting date. Temporary Reserve 70/4884 was also added to the tenure.

3. Assessment of application against Clearing Principles

Comments

Hamersley Iron Pty Ltd has applied to increase the area permitted to clear from 2.1 hectares to 60 hectares, and to increase the permit boundary from 25 hectares to 989 hectares. The amendment also includes changing the reporting period and date, the duration of permit and include additional tenure to the permit.

The flora and vegetation survey within the application area identified 18 vegetation units, most of which are well represented within the local and regional area (Rio Tinto, 2016; GIS Database). Vegetation units P3, P6 and P10 should be considered of moderate significance as they could be representative of 'valley floor mulga' which has been identified as an 'ecosystem at risk', and support a number of range extensions and Priority flora (Kendrick, 2001). Vegetation units P7 and P8 are also considered to be of moderate significance as they support a number of range extensions and are relatively uncommon in the Pilbara (Rio Tinto, 2016).

None of the vegetation units recorded are associated with a Threatened or Priority Ecological Community (Rio Tinto, 2016; GIS Database).

Rio Tinto (2016) recorded 286 vascular flora taxa representing 44 families and 119 genera. None of these species were identified as a Threatened Flora species, however six Priority Flora species were recorded within the application area:

- *Euphorbia inappendiculata* var. *queenslandica* (Priority 1);
- *Isotropis parviflora* (Priority 2);
- *Oxalis* sp. Pilbara (M.E. Trudgen 12725) (Priority 2);
- *Rhagodia* sp. Hamersley (M. Trudgen 17794) (Priority 3);
- *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (Priority 3); and
- *Goodenia nuda* (Priority 4).

The flora species *Euphorbia inappendiculata* var. *queenslandica* has only been recorded from a single location within the application area (Rio Tinto, 2016). This species is only known from six other locations representing 37 individuals within a range of 150 kilometres. The flora species *Isotropis parviflora* was recorded from 41 locations totalling 171 individuals within the application area. This species is not commonly recorded, and has recently been surveyed in the local area. The flora species *Oxalis* sp. Pilbara is common on plains and mulga within the application area, and 228 individuals were recorded within 58 locations. Potential impacts to these Priority Flora may be significant, but can be minimised by the implementation of a flora management condition.

There was one individual of the flora species *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) recorded within the application area. This species is common within the Hamersley subregion, and has a range of over 400 kilometres (DPaW, 2016; Rio Tinto, 2016). The clearing of one individual species of *Themeda* sp. Hamersley Station is unlikely to impact the conservation significance of this species. There were 228 individuals of *Rhagodia* sp. Hamersley recorded within the application area. Rio Tinto's internal database has over 3,000 records of this species within the Pilbara IBRA region (Rio Tinto, 2016). The proposed clearing is unlikely to impact the conservation significance of this species. The flora species *Goodenia nuda* was recorded from eight locations within the application area, totalling 51 individuals. This species is common across the Pilbara and inland desert regions (DPaW, 2016; Rio Tinto, 2016).

The amendment area is comprised of five broad fauna habitat types, as described by Rio Tinto (2016):

- Rocky mid slopes;
- Lower slopes and low hills;
- Undulating plains;
- Mulga plains; and
- Minor drainage lines.

Riparian vegetation within the minor drainage lines may provide important habitat for fauna, as the vegetation can provide faunal habitat of a moderate range of microhabitats with logs, leaf litter and tree hollows (GIS Database). Provided disturbance to riparian habitats is avoided or minimised where possible, and strict weed hygiene procedures are followed, the proposed works are not expected to substantially impact this vegetation association. Potential impacts to riparian vegetation may be minimised through the implementation of a vegetation management condition. The application area does not contain significant faunal habitats such as permanent waterbodies, caves or gorge/gully habitats (Rio Tinto, 2016; GIS Database). Evidence of the Western Pebble-mound Mouse (*Pseudomys chapmani*) (Priority 4) was recorded within the application area through three pebble mounds, however all were inactive (Rio Tinto, 2016). Potential for conservation significant fauna within the amendment area include those identified within the decision report for Clearing Permit CPS 4149/1.

There were five weed species identified within the amendment area (Rio Tinto, 2016). Clearing activities have the potential to result in an increase in the incidence of weed species, which may negatively impact on the biodiversity of the local area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of existing weed management conditions.

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*. The assessment against the remaining clearing Principles remains unchanged, and further information can be found in previous decision reports.

Methodology DPaW (2016)
Kendrick (2001)
Rio Tinto (2016)

GIS Database:
- Hydrography, Lakes
- Hydrography, linear
- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities (TEC/PEC) – Buffered

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There is one native title claim (WC2005/006) over the area under application (DAA, 2016). This claim has been registered with the Native Title Tribunal on behalf of the claimant group. However, the 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 is one registered Aboriginal Site of Significance that intersects with the permit area (DAA, 2016). 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 Environment Regulation, the Department of Parks and Wildlife and the Department of Water, 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 15 August 2016 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received stating no objection to the proposed clearing.

Methodology DAA (2016)

4. References

- DAA (2016) Aboriginal Heritage Enquiry System, Department of Aboriginal Affairs. Government of Western Australia, <http://maps.dia.wa.gov.au/AHIS2/>. (Accessed 12 September 2016).
- DPaW (2016) NatureMap- Department of Parks and Wildlife, <http://naturemap.dec.wa.gov.au>. (Accessed 12 September 2016).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Kendrick, P. (2001) Pilbara 3 (PIL3 – Hamersley Subregion). In A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002 (eds J.E. May & N.L. McKenzie). Department of Conservation and Land Management, W.A.
- Rio Tinto (2016) Flora, Vegetation and Fauna Habitat Assessment at Ophthalmia. Native Vegetation Clearing Permit – Supporting Report. Prepared by Rio Tinto Iron Ore, Perth, Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotEE	Department of the Environment and Energy, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
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 (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	<p>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).</p> <p>Threatened fauna is that subset of ‘Specially Protected Fauna’ declared to be ‘likely to become extinct’ pursuant to section 14(4) of the Wildlife Conservation Act.</p> <p>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 Wildlife Conservation Act.</p> <p>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.</p>
CR	<p>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.</p>
EN	<p>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.</p>
VU	<p>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.</p>
EX	<p>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 <i>Wildlife Conservation Act 1950</i>, 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.</p>
IA	<p>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 <i>Wildlife Conservation Act 1950</i>, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
CD	<p>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 <i>Wildlife Conservation Act 1950</i>, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
OS	<p>Other specially protected fauna Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
P	<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.</p>

- 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.