



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7155/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Fortescue Metals Group 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: Trillian Exploration Prospect

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.173		Mechanical Removal	Exploration access track.

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 18 August 2016

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The application area has been mapped as the following two Beard vegetation associations:

- 82 - Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*.
- 175 – Short bunch grasslands – savanna/grass plain (Pilbara).

Clearing Description Trillian Exploration Prospect
Fortescue Metals Group Ltd (FMG) proposes to clear up to 0.173 hectares within an application area of approximately 2.24 hectares for the purpose of an exploration access track. The project is located approximately 43 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).

Comment The proposed clearing is required for the purpose of developing an access track to the Trillian exploration prospect. The clearing of a small amount of native vegetation is required to allow for a 4 metre wide access track. Minimal native vegetation is located in the application area (GIS Database). A portion of the application area has been previously cleared for the purpose of an access track.

3. Assessment of application against Clearing Principles

Comments The application area occurs within the Hamersley sub-region of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (FMG, 2016; GIS Database). This region comprises mountainous, Proterozoic sedimentary ranges and plateaux, dissected by gorges. This area also contains Mulga low woodland and *Eucalyptus leucophloia* over *Triodia brizoides* (CALM, 2002). The vegetation of the application area has been mapped as Beard vegetation associations 82 and 175 (GIS Database). These vegetation associations are well represented and have over 99% of the pre-European extent of native vegetation remaining at a State level and over 99% remaining at a bioregional level (Government of Western Australia, 2014). The vegetation of the Pilbara bioregion is considered to be of 'least concern' with regards to conservation status (Department of Natural Resources and Environment, 2002; Government of Western Australia, 2014).

No on-ground flora or vegetation surveys have been undertaken over the application area. However, interpretation of aerial imagery appears typical of vegetation in the Hamersley sub-region (GIS Database). Large areas of intact native vegetation are located in the surrounding area. The application area is neither a remnant nor does it form part of any remnants within the local area (GIS Database).

According to available databases, there are no Threatened Ecological Communities (TEC's) or Priority Ecological Communities (PEC's) occurring within or near the application area (GIS Database). There are also

no records of Threatened flora recorded within the application area (GIS Database).

A search of the Department of Parks and Wildlife's (DPaW's) NatureMap database revealed records of 14 conservation significant flora species within a 20 kilometre radius of the application area (DPaW, 2016). Two of these conservation significant species are Priority 1 flora species and include; *Hibiscus* sp. Mt Brockman and *Sida* sp. Hamersley Range. There are six known records of *Hibiscus* sp. Mt Brockman in the Pilbara region and seven known records of *Sida* sp. Hamersley Range in the Pilbara region (Western Australian Herbarium, 2016). These two Priority flora species are not geographically restricted and it is unlikely that the clearing required as part of the proposal will have a significant impact on these species.

Another Priority flora species, *Ptilotus subspinescens* (P3) was also recorded in the Naturemap database search. There are three known records of *P. subspinescens* in the Pilbara region. These records occur approximately 10 kilometres south of the application area (DPaW, 2016). It is unlikely that the proposed clearing would have a significant impact on these species. Eleven additional Priority flora species were recorded in the NatureMap search. However, none of these species are geographically restricted to the local area. The proposed clearing area is small (0.173 hectares) and the application area is sparsely vegetated. It is therefore unlikely that the clearing will have a significant impact on any of these Priority flora species.

No weed species were reported by FMG (2016) and it is not known whether weeds are located in the application area. Weed invasion has the potential to significantly change the dynamics of a natural ecosystem and alter the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A search of DPaW's NatureMap database revealed 20 fauna species of conservation significance potentially occurring within the application area (DPaW, 2016). The desktop search identified eleven bird, two reptile and seven mammal species potentially occurring within 20 kilometres of the application area and surrounding area. Given the application area is small (0.173 hectares) and contains sparse vegetation with previously cleared areas, the habitat of the application area is not likely to support a high level of fauna diversity.

A desktop search recorded three mammal species including the Northern Quoll (*Dasyurus hallucatus* - Threatened), Western Pebble-mound Mouse (*Pseudomys chapmani* - P4) and Long-tailed Dunnart (*Sminthopsis longicaudata* - P4) which may occur in the application area (FMG, 2016). FMG (2016) report that the application area contains hillsides and stony slope habitat. Hillside and stony slope habitat may be suitable foraging habitat for Northern Quoll and Long-tailed Dunnart individuals. Western Pebble-mound Mouse may also inhabit the sloping hills and stony ranges located in the application area. However, no permanent water source is located in the area and it is unlikely that fauna species would primarily rely on the application area. Given the minimal vegetation existing in the application area and the small amount of clearing proposed, the application area is not likely to contain significant habitat for fauna species indigenous to Western Australia.

There are no watercourses or wetlands within the application area and the application area does not support riparian vegetation (FMG, 2016; GIS Database).

The application area falls within the Platform and Newman Land Systems (GIS Database). The Platform land system consists of dissected slopes, raised plains supporting hard spinifex grasslands (Van Vreeswyk et al., 2004). This land system is not susceptible to erosion (Van Vreeswyk et al., 2004). The Newman land system consists of rugged jaspilite plateaux, chert, ridges and mountains supporting hard spinifex grasslands. The Newman land system is also not susceptible to erosion (Van Vreeswyk et al., 2004). The proposed clearing is unlikely to cause large scale land degradation.

No Public Drinking Water Source Areas are located within or in the vicinity of the application area (GIS Database). It is unlikely that the small amount of clearing required for the proposal will cause deterioration in the quality of surface or ground water, including sedimentation, erosion, turbidity or eutrophication of water bodies on-site or off-site (GIS Database).

The application area receives low mean annual rainfall (324 millimetres) and very high average annual evaporation rate (approximately 3,200 millimetres) (BoM, 2016). Whilst large, annual rainfall events may result in the flooding of the area, the proposed clearing of 0.173 hectares is not likely to lead to an increase in incidence or intensity of flooding.

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is not likely to be at variance to Principles (a), (b), (c), (d), (f), (g), (i), and (j) and is not at variance to Principles (e) and (h).

Methodology BoM (2016)
CALM (2002)
DAA (2016)
Department of Natural Resources and Environment (2002)
DPaW (2016)
FMG (2016)
Government of Western Australia (2014)
Van Vreeswyk et al. (2004)
Western Australian Herbarium (2016)

- GIS Database:
- DPaW Tenure
 - Hydrography, linear
 - IBRA WA (Regions - Sub Regions)
 - Pre-European Vegetation
 - Public Drinking Water Source Areas
 - Rangeland Land System Mapping
 - TEC/PEC – Boundaries
 - TEC/PEC – Buffer
 - Threatened Fauna
 - Threatened and Priority Flora

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 (WC1997/089) over the application area (DAA, 2016). This claim has been registered with the National Native Title Tribunal on behalf of the claimant groups (DAA, 2016). 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 are no registered Aboriginal sites of significance within the application 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, 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 clearing permit application was advertised on 25 July 2016 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

Methodology DAA (2016)

4. References

- BoM (2016) Bureau of Meteorology Website - Climate Data Online, Paraburdoo Aero. Bureau of Meteorology. http://www.bom.gov.au/climate/averages/tables/cw_007185.shtml. (Accessed 4 August 2016).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara (PIL3 – Hamersley subregion) Department of Conservation and Land Management, Perth, Western Australia.
- DAA (2016) Aboriginal Heritage Inquiry System. Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2> (Accessed 4 August 2016).
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- DPaW (2016) NatureMap, Department of Parks and Wildlife. <http://naturemap.dec.wa.gov.au> (Accessed 4 August 2016).
- FMG (2016) Supporting Documentation – Native Vegetation Clearing Permit, Trillian Exploration Prospect. Fortescue Metals Group Ltd, Perth Western Australia, June 2016.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Western Australian Department of Parks and Wildlife, Perth, Western Australia.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Government of Western Australia, Perth, Western Australia.
- Western Australian Herbarium (2016) Florabase - the Western Australian Flora. Flora Species Search, Department of Parks and Wildlife, Western Australian Herbarium. <http://florabase.dpaw.wa.gov.au/> (Accessed 4 August 2016).

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
DotE	Department of the Environment, 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>Environmental 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** **Threatened species:**
Published as Specially Protected under the *Wildlife Conservation Act 1950*, 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 Wildlife Conservation Act.
- 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.
- 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 *Wildlife Conservation Act 1950*, 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 *Wildlife Conservation Act 1950*, 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 *Wildlife Conservation Act 1950*, 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.