Government of Western Australia
Department of Mines, Industry Regulation and Safety

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5572/2

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **BHP Billiton Iron Ore Pty Ltd**

1.3. Property details

Property: *Iron Ore (Mount Goldsworthy) Agreement Act 1964*, Mineral Lease 235SA (AML 70/235)
Iron Ore (Mount Goldsworthy) Agreement Act 1964, Mineral Lease 249SA (AML 70/249)

Local Government Area: Shire of East Pilbara

Colloquial name: Goldsworthy Mining Operations

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
110		Mechanical Removal	Borrow pits, exploration, hydrogeological and geotechnical investigations, infrastructure maintenance and associated activities

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 4 October 2018

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. Three Beard vegetation associations have been mapped within the application area (GIS Database):

93: Hummock grasslands, shrub steppe; kanji over soft spinifex;
117: Hummock grasslands, grass steppe; soft spinifex; and
175: Short bunch grassland - savanna/grass plain (Pilbara).

A flora and vegetation survey of the application area was conducted in September 2012 by Onshore Environmental (2013). Onshore Environmental (2013) identified the following 31 vegetation associations within the application area (BHP, 2013):

***Terminalia* Low Woodland**

1. Low Woodland of *Terminalia canescens* and *Atalaya hemiglauca* over Open Hummock Grassland of *Triodia epactia* with High Open Shrubland of *Ehretia saligna*, *Ficus brachypoda* and *Acacia acradenia* in brown sandy loam on cliff lines and steep gullies *Acacia* Closed Scrub;

2. Closed Scrub of *Acacia monticola*, *Acacia acradenia* and *Grevillea wickhamii* over Hummock Grassland of *Triodia epactia* with Low Open Mallee of *Eucalyptus odontocarpa* in brown sandy loam along minor drainage lines dissecting undulating hills;

***Acacia* Open Scrub**

3a. Open Scrub of *Acacia ancistrocarpa*, *Acacia tumida* var. *pilbarensis* and *Grevillea wickhamii* over Hummock Grassland of *Triodia schinzii* with Open Tussock Grassland of *Paraneurachne muelleri*, *Aristida holathera* and *Eragrostis eriopoda* in red loamy sand on sandplains;

3b. Open Scrub of *Acacia tumida* var. *pilbarensis* over Hummock Grassland of *Triodia epactia* with Low Open Woodland of *Corymbia hamersleyana* and *Corymbia flavescens* in red brown sand on pindan sandplains and sandy drainage zones;

***Grevillea* Open Scrub**

4. Open Scrub of *Grevillea wickhamii* over Scattered Hummock Grasses of *Triodia epactia* in variable mine overburden on rehabilitated post-mining infrastructure areas;

***Acacia* Low Open Heath**

5. Low Open Heath of *Acacia stellaticeps* over Open Hummock Grassland of *Triodia epactia* and *Triodia schinzii* with High Open Shrubland of *Grevillea wickhamii*, *Acacia ancistrocarpa* and *Hakea macrocarpa* in red orange sand on stony sandplains *Triodia* Hummock Grassland;

6a. Hummock Grassland of *Triodia epactia* with High Open Shrubland of *Grevillea wickhamii*, *Acacia Inaequilatera* and *Petalostylis labicheoides* over Open Shrubland of *Acacia acradenia* in orange silty loam on sandstone hill crests and slopes;

6b. Hummock Grassland of *Triodia wiseana* with Low Open Shrubland of *Tephrosia rosea* var. *clementii* and *Corchorus parviflorus* with Scattered High Shrubs of *Grevillea wickhamii* and *Acacia inaequilatera* in brown sandy loam on dolerite rises, low hills and footslopes;

6c. Hummock Grassland of *Triodia epactia* with Scattered High Shrubs of *Acacia inaequilatera*, *Grevillea wickhamii* and *Acacia acradenia* over Scattered Low Shrubs of *Corchorus parviflorus* in orange silty loam on footslopes of sandstone hills;

6d. Hummock Grassland of *Triodia epactia* and *Triodia wiseana* with Low Mallee of *Eucalyptus odontocarpa* over Scattered High Shrubs of *Acacia acradenia*, *Grevillea wickhamii* and *Acacia inaequilatera* in brown sandy loam on steep sandstone hill slopes;

6e. Hummock Grassland of *Triodia epactia* with Scattered High Shrubs of *Petalostylis labicheoides*, *Acacia inaequilatera* and *Grevillea wickhamii* over Low Open Shrubland of *Corchorus parviflorus*, *Tephrosia rosea* var. *clementii* and *Isotropis atropurpurea* in brown loamy sand (mudstone at surface) on open valleys;

6f. Hummock Grassland of *Triodia epactia* with High Open Shrubland of *Grevillea wickhamii*, *Acacia orthocarpa* and *Acacia monticola* over Low Open Shrubland of *Acacia adoxa* var. *adoxa*, *Acacia hilliana* and *Acacia stellaticeps* in brown sandy loam on low hills;

6g. Hummock Grassland of *Triodia epactia* with High Open Shrubland of *Acacia ancistrocarpa*, *Acacia tumida* var. *pilbarensis* and *Grevillea wickhamii* over Low Open Shrubland of *Ptilotus astrolasius*, *Corchorus* cf. *elachocarpus* and *Bonamia rosea* in red orange sand on sandplains;

6h. Hummock Grassland of *Triodia epactia* with Low Open Shrubland of *Pluchea tetranthera* and Scattered High Shrubs of *Acacia inaequilatera*, *Acacia ancistrocarpa* and *Acacia tumida* var. *pilbarensis* in orange sandy loam on plains;

6i. Hummock Grassland of *Triodia epactia* and *Triodia longiceps* with Open Tussock Grassland of *Chrysopogon fallax* and **Cenchrus ciliaris* with Low Open Woodland of *Corymbia flavescens*, *Bauhinia cunninghamii* and *Eucalyptus victrix* in orange loamy sand on floodplains and drainage zones;

6j. Hummock Grassland of *Triodia wiseana* with High Open Shrubland of *Grevillea wickhamii*, *Acacia inaequilatera* and *Acacia sclerosperma* over Low Open Shrubland of *Acacia stellaticeps* in light brown sandy loam on low calcrete rises;

6k. Hummock Grassland of *Triodia epactia* in orange loam on plains *Triodia* Open Hummock Grassland;

7a. Open Hummock Grassland of *Triodia epactia* with Very Open Tussock Grassland of *Eragrostis xerophila*, *Eriachne benthamii* and *Eriachne flaccida* over Very Open Annual Grassland of *Eragrostis cumingii* and *Sporobolus australasicus* in brown silty clay loam on plains;

7b. Open Hummock Grassland of *Triodia epactia* with Open Scrub of *Acacia ancistrocarpa*, *Acacia acradenia* and *Acacia tumida* var. *pilbarensis* and Scattered Low Trees of *Eucalyptus camaldulensis* var. *obtusa* in orange clay loam on rehabilitated town site area;

***Eragrostis* Tussock Grassland**

8. Tussock Grassland of *Eragrostis xerophila* with Very Open Hummock Grassland of *Triodia epactia* and Very Open Herbs of *Ptilotus murrayi* in orange medium clay on stony cracking clay plains;

***Eriachne* Tussock Grassland**

9a. Tussock Grassland of *Eriachne benthamii* with Low Open Woodland of *Eucalyptus victrix* over Open Herbland of *Marsilea hirsuta* and *Centipeda minima* subsp. *macrocephala* in brown sandy clay on plains and drainage lines;

9b. Tussock Grassland of *Eriachne* cf. *glauca*, *Eriachne benthamii* and *Elytrophorus spicatus* over Very Open Herbland of *Marsilea hirsuta*, *Centipeda minima* subsp. *macrocephala* and *Alternanthera nodiflora* in orange light medium clay on gilgai plains;

9c. Tussock Grassland of *Eriachne benthamii* and *Sporobolus mitchellii* in orange light medium clay on gilgai plains;

******Cenchrus* **Tussock Grassland**

10. Tussock Grassland of **Cenchrus ciliaris* with Open Shrubland of *Acacia ancistrocarpa* and *Acacia tumida* var. *pilbarensis* and Open Hummock Grassland of *Triodia angusta* and *Triodia epactia* in orange clay loam on rehabilitated post-mining infrastructure areas;

***Eriachne* Open Tussock Grassland**

11. Open Tussock Grassland of *Eriachne benthamii*, *Cynodon dactylon* and *Eragrostis xerophila* over Very Open Herbland of *Centipeda minima* subsp. m*acrocephala*, *Glinus lotoides* and *Marsilea hirsuta* with Scattered Tall Shrubs of **Vachellia farnesiana* in brown medium heavy clay on drainage ponds, depressions and borrow pits;

***Eragrostis* Very Open Tussock Grassland**

12. Very Open Tussock Grassland of *Eragrostis xerophila* and *Eriachne benthamii* with Very Open Herbs of *Ptilotus murrayi*, *Sida fibulifera* and *Trianthema triquetra* over Very Open Annual Grassland of *Sporobolus australasicus*, *Eragrostis cumingii* and *Dactyloctenium radulans* in brown light clay on plains;

Disturbance

13a. Bare – Mine drainage areas
13b. Regrowth – Gas pipeline (pindan sand plain)
13c. Bare – Disturbed ground (no rehabilitation)
13d. Bare – BHPBIO Rail
13e. Bare – Mine void

Clearing Description

Goldsworthy Project.
BHP Billiton Iron Ore Pty Ltd proposes to clear up to 110 hectares of native vegetation within a boundary of approximately 6,760 hectares, for the purpose of borrow pits, exploration, hydrogeological and geotechnical investigations, infrastructure maintenance and associated activities. The project is located approximately 95 kilometres east of Port Hedland, within the Shire of East Pilbara.

Vegetation Condition

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994);

To

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).

Comment

Clearing permit CPS 5572/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 27 June 2013 and was valid from 20 July 2013 to 20 July 2023. The permit authorised the clearing of up to 110 hectares of native vegetation within a boundary of approximately 6,760 hectares, for the purpose of borrow pits, exploration, hydrogeological and geotechnical investigations, infrastructure maintenance and associated activities.

On 8 August 2018, the Permit Holder applied to amend CPS 5572/1 to remove Condition 10(a)(iii) and extend the duration of the permit from 2023 to 2030.

3. Assessment of application against Clearing Principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to extend the duration of the permit by 7 years, and remove Condition 10(a)(iii) from the permit to reflect the current range extent of the Crest-tailed Mulgara (*Dasycercus cristicauda*) in Western Australia. The area approved to clear (110 hectares) and permit boundary remain unchanged.

DBCA (2018) advise that the Crest-tailed Mulgara is no longer considered to be an extant species in Western Australia, and that Western Australia is now considered to be within the former historical range of the species. The amendments are unlikely to result in any significant change to the environmental impacts of the proposed clearing (GIS Database).

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 report CPS 5572/1.

Methodology DBCA (2018)

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

Comments

There is one Native Title claim over the area under application (DPLH, 2018). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. 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 27 August 2018 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

Methodology DPLH (2018)

4. References

DBCA (2018) Advice received in relation to Clearing Permit Application CPS 5572/2. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, September 2018.

DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 25 September 2018).

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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	*Environmental Protection Act 1986*, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (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	*Rights in Water and Irrigation Act 1914*, 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 *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 1950*.

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 1950*.

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.