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.: 5045/2
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)
General Purpose Lease 45/278
Local Government Area: Shire of East Pilbara
Colloquial name: Goldsworthy Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
42		Mechanical Removal	Abandonment Bund Construction; Drilling Related to Ongoing Monitoring, Remediation Activities and Drainage Control; and Supporting Infrastructure

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 20 September 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 June 2008 by Pilbara Flora (2009). This survey identified the following 18 vegetation communities within the application area (BHP, 2012):

Hills
Hillside Spinifex Grassland - Scattered shrubs over *Acacia adoxa* var. *adoxa* low open shrubland over *Triodia pungens* hummock grassland;

Hillside Spinifex Open Shrubland - *Corymbia hamersleyana* scattered low trees over *Grevillea wickhamii* subsp. *macrodonta* and *Acacia inaequilatera* high shrubland over *Corchorus parviflorus, Acacia adoxa* var. *adoxa* and *Goodenia candicans* low open shrubland over *Triodia pungens* hummock grassland;

Hillside Spinifex *Eucalyptus odontocarpa* Woodland - *Eucalyptus odontocarpa* low open woodland over *Acacia inaequilatera, Grevillea wickhamii* subsp. *macrodonta* and *Acacia monticola* scattered shrubs over *Acacia adoxa* var. *adoxa, Senna glutinosa* subsp. *glutinosa, Tephrosia rosea* var. *clementii* and *Corchorus parviflorus* low scattered shrubs over *Triodia pungens* hummock grassland;

Hillside Valley Shrubland - *Terminalia canescens* and *Corymbia hamersleyana* low open woodland over *Acacia monticola, Acacia acradenia and Grevillea wickhamii* subsp. *macrodonta* high open Shrubland over *Triodia pungens* hummock grassland;

Colluvial Slopes Spinifex Grassland - *Acacia inaequilatera, Acacia acradenia* and *Grevillea wickhamii* subsp. *macrodonta* scattered tall shrubs over *Triodia pungens or Triodia wiseana* hummock grassland;

Colluvial Slopes Spinifex Shrubland - *Corymbia hamersleyana* scattered low trees over *Acacia adoxa* var. *adoxa, Acacia acradenia, Acacia monticola* and *Grevillea wickhamii* subsp. *macrodonta* high open shrubland over *Jacksonia aculeata, Tephrosia monophylla* and *Triumfetta chaetocarpa* low scattered shrub over *Triodia pungens* open hummock grassland;

Rocky Narrow Valley - *Terminalia canescens* and *Atalaya hemiglauca* low woodland over *Acacia tumida* var.

pilbarensis scattered tall shrubs over *Cymbopogon ambiguous and Eriachne mucronata* very open tussock grassland / *Triodia pungens* open hummock grassland; and

Rocky Hillside *Terminalia canescens* Low Woodland - *Terminalia canescens* and *Atalaya hemiglauca* low woodland over *Cyperus cunninghamii* and *Acacia monticola* open shrubland over *Acacia adoxa* var. *adoxa* low open shrubland over *Cymbopogon ambiguus, Enneapogon robustissimus* and *Eriachne mucronata* open tussock grassland */ Triodia pungens* hummock grassland.

Sandplain

Sandplain Spinifex Shrubland Open Woodland - *Corymbia hamersleyana, Corymbia zygophylla* and *Dolichandrone heterophylla* low open woodland over *Acacia ancistrocarpa* and *Acacia tumida* var. *pilbarensis* closed scrub over *Acacia stellaticeps, Corchorus elachocarpus, Bonamia pannosa, Jacksonia aculeata, Ptilotus astrolasius* var. *astrolasius* and *Tephrosia rosea* var. *glabrior* ms low shrubland over *Triodia schinzii* hummock grassland */ Cenchrus ciliaris, Aristida holathera* var. *holathera* and *Eragrostis eriopoda* open tussock grassland;

Sandplain *Corymbia flavescens* Open Woodland - *Corymbia flavescens* and *Corymbia hamersleyana* open woodland over *Acacia ancistrocarpa, Acacia acradenia* and *Acacia tumida* var. *pilbarensis* high shrubland over *Triodia pungens* and *Triodia schinzii* closed hummock grassland; and

Sandplain Shrubland with *Eucalyptus odontocarpa* - *Corymbia hamersleyana* scattered low trees over *Eucalyptus odontocarpa* low woodland over *Acacia acradenia, Grevillea wickhamii* subsp. *macrodonta* and *Petalostylis labicheoides* high shrubland over *Triodia pungens* and *Triodia wiseana* hummock grassland.

Drainage Line

Drainage Line Colluvial Hillside - *Eucalyptus odontocarpa* low woodland over *Acacia acradenia, Acacia monticola, Acacia tumida* var. *pilbarensis and Petalostylis labicheoides* closed scrub over *Triodia pungens* closed hummock grassland;

Drainage Line Rocky Hillside - *Corymbia hamersleyana* low open woodland over *Acacia acradenia, Acacia monticola* and *Grevillea wickhamii* subsp. *macrodonta* closed scrub over *Triodia pungens* hummock grassland;

Drainage Line Medium Creek - *Acacia tumida* var. *pilbarensis, Grevillea wickhamii* subsp. *macrodonta* and *Petalostylis labicheoides* open scrub over *Triodia pungens* hummock grassland;

Disturbed areas

Mine Drainage Area - Completely Degraded;

Regrowth Infrastructure Areas - Variable, shrublands and barren areas;

Rehabilitation Infrastructure Areas - *Acacia ancistrocarpa, Acacia inaequilatera, Acacia acradenia, Acacia stellaticeps, Acacia tumida* var. *pilbarensis, Cenchrus ciliaris, Corymbia hamersleyana, Cucumis maderaspatanus, Cymbopogon ambiguus, Eucalyptus odontocarpa, Grevillea wickhamii* subsp. *macrodonta, Petalostylis labicheoides, Pterocaulon sphaeranthoides, Ptilotus exaltatus* var. *exaltatus, Senna notabilis, Triodia angusta, Triodia pungens*; and

Rehabilitation OSA - Variable structure, typically shrublands and grasslands with patchy coverage and barren areas.

Clearing Description

Goldsworthy Project.
BHP Billiton Iron Ore Pty Ltd is proposing to clear up to 42 hectares of native vegetation within a broader boundary of approximately 572 hectares for the purpose of constructing abandonment bunds, drilling related to ongoing monitoring, remediation activities and drainage control and supporting infrastructure.

The application area is located within the Pilbara region of Western Australia and is situated approximately 95 kilometres east of Port Hedland.

Clearing will be conducted by a dozer/excavator and the vegetation and topsoil will be stockpiled for later use in rehabilitation.

Vegetation Condition

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

To:

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment

The vegetation condition was derived from a vegetation survey conducted by Pilbara Flora (2009).

Clearing permit CPS 5045/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 28 June 2012 and was valid from 21 July 2012 to 31 July 2023. The permit authorised the clearing of up to 42 hectares of native vegetation within a boundary of approximately 572 hectares, for the purpose of Abandonment Bund Construction; Drilling Related to Ongoing Monitoring, Remediation Activities and Drainage Control; and Supporting Infrastructure.

On 8 August 2018, the Permit Holder applied to amend CPS 5045/1 to extend the period in which clearing is authorised to 30 November 2025, and to extend the duration of the permit to 30 November 2030.

3. Assessment of application against Clearing Principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to amend CPS 5045/1 to extend the period in which clearing is authorised to 30 November 2025, and to extend the duration of the permit to 30 November 2030. The amount of clearing authorised and the clearing permit boundary will remain the same.

The proposed amendment is unlikely to result in any significant change to the environmental impacts of the proposed clearing. The assessment against the clearing principles remains consistent with the assessment contained in decision report CPS 5045/1.

Methodology

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

Comments

There is one Native Title claim (WC1999/026) 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.

Methodology DPLH (2018)

4. References

BHP (2012) Goldsworthy Project - Supporting Documentation for Vegetation Clearing Permit Application. BHP Billiton Iron Ore Pty Ltd, April 2012.

DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 11 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.

Pilbara Flora (2009) Flora and Vegetation Survey of the Goldsworthy Minesite. Report prepared for BHP Billiton Iron Ore Pty Ltd by Pilbara Flora, January 2009.

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.