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.: 7139/3
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 249SA (AML 70/249)
Iron Ore (Mount Goldsworthy) Agreement Act 1964, Mineral Lease 281SA (AML 70/281)
Exploration Licence 47/13
Exploration Licence 47/14
Exploration Licence 47/15
Exploration Licence 47/17
Exploration Licence 47/1429
Exploration Licence 47/1540
Exploration Licence 47/1870
Prospecting Licence 47/1421
Prospecting Licence 47/1611

Local Government Area: Shire of Ashburton and Shire of East Pilbara
Colloquial name: Central Pilbara West Exploration Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1,000		Mechanical Removal	Rehabilitation, geotechnical investigations, access tracks, mineral exploration, monitoring facilities, hydrogeological drilling, water bores and associated activities.

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 12 July 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 associations:
18: Low woodland; mulga (*Acacia aneura*);
29: Sparse low woodland; mulga, discontinuous in scattered groups;
82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*; and
567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex and *Triodia basedowii*.

A flora and vegetation survey was conducted over the application area by Onshore Environmental from 2011 to 2013. The results from these flora and vegetation surveys were consolidated into one report by BHP Billiton Iron Ore Pty Ltd in support of clearing permit CPS 7139/1 in 2016. The following vegetation associations were recorded within the application area (BHP Billiton, 2016):

***Acacia* High Shrubland**

- FP AbApr Tp AcoSau - High Shrubland of *Acacia bivenosa* and *Acacia pruinocarpa* over Open Hummock Grassland of *Triodia pungens* and Very Open Hummock Grassland of *Aristida contorta* and *Sporobolus australasicus* on brown loam on stony dolerite floodplains and outwash zones; and
- MA AtpApyAse Ec TmbTtCpr - High Shrubland *of Acacia tumida* var. *pilbarensis, Acacia pyrifolia* var. *pyrifolia* and *Acacia sericophylla* with Scattered Trees of *Eucalyptus camaldulensis* subsp. *refulgens* over Open Tussock Grassland of *Themeda* sp. Mt Barricade (M.E. Trudgen 2471), *Themeda triandra* and *Cymbopogon procerus* on brown loam and gravels on major drainage channels.

***Acacia* Low Open Forest**

- FP AaApaApt TtCfEb - Low Open Forest of *Acacia aptaneura*, *Acacia paraneura* and *Acacia pteraneura* over Open Tussock Grassland of *Themeda triandra, Chrysopogon fallax* and *Eriachne*

benthamii on red brown clay loam on plains;

- FP AaCa Mv Tm - Low Open Forest of *Acacia aptaneura* and *Corymbia aspera* over Low Open Shrubland of *Maireana villosa* over Open Hummock Grassland of *Triodia melvillei* on red brown cracking clays and alluvial loams on floodplains;
- MA AaAciApr CcTtCf EvEc - Low Open Forest of *Acacia aptaneura, Acacia citrinoviridis* and *Acacia pruinocarpa* over Open Tussock Grassland of **Cenchrus ciliaris, Themeda triandra* and *Chrysopogon fallax* with Open Woodland of *Eucalyptus victrix* and *Eucalyptus camaldulensis* subsp. *refulgens* on brown loamy sand on major drainage lines with broad and deeply incised drainage channels;
- SP AaApr TmTwTp TtCfAin - Low Open Forest of *Acacia aptaneura* and *Acacia pruinocarpa* over Open Hummock Grassland of *Triodia melvillei, Triodia wiseana* and *Triodia pungens* over Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Aristida inaequiglumis* on red brown loam on plains; and
- SP AcaAa AobDamCf - Low Open Forest of *Acacia catenulata* subsp. *occidentalis* and *Acacia aptaneura* over Very Open Tussock Grassland of *Aristida obscura, Digitaria ammophila* and *Chrysopogon fallax* on red brown clay loam on stony lower plains.

***Acacia* Low Open Woodland**

- FP AaAcaApa ElaSlPo AcoEdAj - Low Open Woodland of *Acacia aptaneura, Acacia catenulata* subsp. *occidentalis* and *Acacia paraneura* over Low Open Shrubland of Eremophila lanceolata, *Solanum lasiophyllum* and *Ptilotus obovatus* over Very Open Tussock Grassland of *Aristida contorta, Eragrostis dielsii* and *Aristida jerichoensis* var. *subspinulifera* on red brown clay loam on hardpan intergrove plains.

***Acacia* Low Woodland**

- FP AaEv Mf EaEbAco - Low Woodland of *Acacia aptaneura* and *Eucalyptus victrix* with Scattered Shrubs of *Muehlenbeckia florulenta* over Open Tussock Grassland of *Eulalia aurea, Eriachne benthamii* and *Aristida contorta* on orange brown clay loam on alluvial plains;
- FP Ev Aa EaEbTt - Woodland of *Eucalyptus victrix* over Low Woodland of *Acacia aptaneura* over Open Tussock Grassland of *Eulalia aurea, Eriachne benthamii* and *Themeda triandra* on orange clay loam on alluvial plains;
- GG AaAcaEl DpaEtEj TpTw - Low Woodland of *Acacia aptaneura, Acacia catenulata* subsp. *occidentalis* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Dodonaea pachyneura*, *Eremophila tietkensii* and *Eremophila jucunda* subsp. *pulcherrima* over Open Hummock Grassland of *Triodia pungens* and *Triodia wiseana* on red brown loam on breakaway slopes, cliff lines and minor gorges;
- HS AaApr EjAmmCco TwTp - Low Woodland of *Acacia aptaneura* and *Acacia pruinocarpa* over Shrubland of *Eremophila jucunda* subsp. *pulch*errima, *Acacia marramamba* and *Codonocarpus cotinifolius* over Open Hummock Grassland of *Triodia wiseana* and *Triodia pungens* on red brown loam on hill slopes; and
- SP Aa EfrSgl TtAco - Low Woodland of *Acacia aptaneura* over High Shrubland of *Eremophila fraseri* and *Senna glutinosa* subsp. x *luerssenii* over Very Open Tussock Grassland of *Themeda triandra* and *Aristida contorta* on red brown clay loam on stony dolerite drainage plains.

***Acacia* Open Forest**

- FP AaEv EaEb Mf - Open Forest of *Acacia aptaneura* and *Eucalyptus victrix* over Open Tussock Grassland of *Eulalia aurea* and *Eriachne benthamii* with Open Shrubland of *Muehlenbeckia florulenta* on red brown clay loam on alluvial plains.

***Acacia* Open Scrub**

- MI AtpPlAmo TpTs ChEl - Open Scrub of *Acacia tumida* var. *pilbarensis, Petalostylis labicheoides* and *Acacia monticola* over Open Hummock Grassland of *Triodia pungens* and *Triodia* sp. Shovelanna Hill (S.van Leeuwen 3835) with Low Open Woodland of *Corymbia hamerselyana and Eucalyptus leucophloia* subsp. *leucophloia* on red brown sandy loam on minor drainage lines.

***Acacia* Shrubland**

- MI AbAdAma Tp TtPmEa - Shrubland of *Acacia bivenosa, Acacia dictyophleba* and *Acacia maitlandii* over Open Hummock Grassland of *Triodia pungens* over Open Tussock Grassland of *Themeda triandra, Paraneurachne muelleri* and *Eulalia aurea* on brown sandy loam on minor drainage lines.

***Callitris* Low Open Forest**

- GG CcoCfeEl EmuTmbCa - Low Open Forest of *Callitris columellaris, Corymbia ferriticola* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Tussock Grassland of *Eriachne mucronata*, *Themeda* sp. Mt Barricade (M.E. Trudgen 2471) and *Cymbopogon ambiguus* and Very Open Hummock Grassland of *Triodia pungens* on orange brown loam on upper gorges.

***Corymbia* Low Woodland**

- GG CfeElFb AhDvmAha CaEmuTmb - Low Woodland of *Corymbia ferriticola, Eucalyptus leucophloia* subsp. *leucophloia* and *Ficus brachypodaover* Open Shrubland of *Acacia hamersleyensis*, *Dodonaea viscosa* subsp. *mucronata* and *Astrotricha hamptonii* over Open Tussock Grassland of *Cymbopogon ambiguus, Eriachne mucronata* and *Themeda* sp. Mt Barricade on red brown loam along cliff lines and gorges.

***Enneapogon* Tussock Grassland**

- HS EliCa EfrAte ImDau - Tussock Grassland of *Enneapogon lindleyanus* and *Cymbopogon ambiguus* with Shrubland of *Eremophila fraseri* and *Acacia tetragonophylla* over Low Shrubland of *Indigofera monophylla* and *Dipteracanthus australasicus* on brown sandy clay loam on mudstone outcrops and boulders on lower slopes of The Governor Range.

***Eriachne* Tussock Grassland**

- FP EbEaTt Ev Mf - Tussock Grassland of *Eriachne benthamii, Eulalia aurea* and *Themeda triandra* with Woodland of *Eucalyptus victrix* over Open Shrubland of *Muehlenbeckia florulenta* on orange brown loamy clay on alluvial plains; and
- MI Eb VfAteAa PhCmPg - Tussock Grassland of *Eriachne benthamii* with Shrubland of **Vachellia farnesiana*, *Acacia tetragonophylla* and *Acacia aptaneura* over Low Open Herbland of *Pimelea holroydii, Centipeda minima* and *Ptilotus gomphrenoides* on red silty loam on basalt parent rock along small drainage lines.

***Eucalyptus* Low Open Forest**

- MA EcEvEx ApyAtpGr TtEaCpr - Low Open Forest of *Eucalyptus camaldulensis* subsp. *refulgens*, *Eucalyptus victrix* and *Eucalyptus xerothemica* over High Shrubland of *Acacia pyrifolia* var. *pyrifolia*, *Acacia tumida* var. *pilbarensis* and *Gossypium robinsonii* over Open Tussock Grassland of *Themeda triandra, Eulalia aurea* and *Cymbopogon procerus* on red brown clay loam on major drainage lines.

***Eulalia* Tussock Grassland**

- FP EaEbTt EvAa Mf - Tussock Grassland of *Eulalia aurea, Eriachne benthamii* and *Themeda triandra* with Woodland of *Eucalyptus victrix* and *Acacia aptaneura* over Open Shrubland of *Muehlenbeckia florulenta* on red brown clay loam on alluvial plains.

***Petalostylis* Shrubland**

- MI PlAtpAmo ChEl TwTp - Shrubland of *Petalostylis labicheoides, Acacia tumida* var. *pilbarensis* and *Acacia monticola* with Low Open Woodland of *Corymbia hamerselyana* and *Eucalyptus leucophloia* subsp. *Leucophloia* over Open Hummock Grassland of *Triodia wiseana* and *Triodia pungens* on red brown loam on minor drainage lines.

***Themeda* Closed Tussock Grassland**

- FP Ths Ca PoSau - Closed Tussock Grassland of *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) with Low Open Woodland of *Corymbia aspera* over Low Open Shrubland of *Ptilotus obovatus* and *Salsola australis* on orange light clay on level flood plains.

***Themeda* Open Tussock Grassland**

- ME TtAinCa ChEl AmoPlAlu - Open Tussock Grassland of *Themeda triandra, Aristida inaequiglumis* and *Cymbopogon ambiguus* with Low Open Woodland of *Corymbia hamerselyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia monticola, Petalostylis labicheoides* and *Androcalva luteiflora* on red brown alluvium on minor and medium drainage lines.

***Themeda* Tussock Grassland**

- FP TtEa ExAa AprAtpElo - Tussock Grassland of *Themeda triandra* and *Eulalia aurea* with Low Woodland of *Eucalyptus xerothermica* and *Acacia aptaneura* over Open Shrubland of *Acacia pruinocarpa, Acacia tumida* var. *pilbarensis* and *Eremophila longifolia* on red brown clay loam on unincised drainage lines and floodplains; and
- GG TtEmuTmb ElChCfe AtpGrPl - Tussock Grassland of *Themeda triandra*, *Eriachne mucronata* and *Themeda* sp. Mt Barricade with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* and *Corymbia ferriticola* over High Shrubland of *Acacia tumida* var. *pilbarensis, Gossypium robinsonii* and *Petalostylis labicheoides* on red brown sandy loam in narrowly incised rocky drainage lines.

***Triodia* Closed Hummock Grassland**

- HC TpTw El NhrOs - Closed Hummock Grassland of *Triodia pungens* and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Scattered Shrubs of *Newcastelia* sp. Hamersley Range (S. van Leeuwen 4264) and *Olearia stuartii* on brown silty loam on high sloping hill crest of Mount Robinson.

***Triodia* Hummock Grassland**

- HS TsTwTp ElCh AhiAad - Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia wiseana* and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana* and *Acacia adoxa* var. *adoxa* on red brown sandy loam on hill slopes;
- CP TwTa Es AbPlApy - Hummock Grassland of *Triodia wiseana* and *Triodia angusta* with Open Mallee of *Eucalyptus socialis* subsp. *eucentrica* and Open Shrubland of *Acacia bivenosa, Petalostylis labicheoides* and *Acacia pyrifolia* var. *pyrifolia* on light brown clay loam on calcrete plains and rises;
- FS Ts CdHc AanAiGw - Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Corymbia deserticola* subsp. *deserticola* and *Hakea chordophylla* over Open Shrubland of *Acacia ancistrocarpa*, *Acacia inaequilatera* and *Grevillea wickhamii* subsp. *hispidula* on red brown sandy loam on foot slopes and stony plains;
- FS TsTpTw El AbApaAan - Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen

3835), *Triodia pungens* and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and Open Shrubland of *Acacia bivenosa*, *Acacia pachyachra* and *Acacia ancistrocarpa* on red brown loam on foot slopes and low undulating hills;

- HC Tw Ah EkEgCh - Hummock Grassland of *Triodia wiseana* with Shrubland of *Acacia hamersleyensis* and Open Mallee of *Eucalyptus kingsmillii* subsp. *kingsmillii*, *Eucalyptus gamophylla* and *Corymbia hamersleyana* (mallee form) on red brown loam and silty loam on hill crests;
- HC Tw AiAb IrSao - Hummock Grassland of *Triodia wiseana* with High Open Shrubland of *Acacia inaequilatera* and *Acacia bivenosa* over Low Open Shrubland of *Indigofera rugosa* and *Senna artemisioides* subsp. *oligophylla* on red silty loam on dolerite hill crests;
- HC TwTbrTp ElCh AmaGwAb - Hummock Grassland of *Triodia wiseana, Triodia brizoides* and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over High Open Shrubland of *Acacia maitlandii, Grevilllea wickhamii* subsp. *hispidula* and *Acacia bivenosa* on red brown sandy loam on hill crests and upper hill slopes;
- HC TwTsTp ElCh Ah - Hummock Grassland of *Triodia wiseana, Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamerselyana* over Open Shrubland of *Acacia hamersleyensis* on red brown clay loam on hill crests and upper hill slopes;
- HS Tbr El Er - Hummock Grassland of *Triodia brizoides* with Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Mallee of *Eucalyptus repullulans* on gently inclined low breakaway hill slope;
- HS Tp Ama Tt - Hummock Grassland of *Triodia pungens* with Shrubland of *Acacia maitlandii* over Very Open Tussock Grassland of *Themeda triandra* on brown loam on low basalt hills;
- HS TwTbrTs ElExCh PcaPasAhi - Hummock Grassland of *Triodia wiseana, Triodia brizoides* and *Triodia* sp. Shovellana Hill with Low Open Woodland of *Eucalyptus leucophloia* subsp. l*eucophloia*, *Eucalyptus xerothermica* and *Corymbia hamersleyana* over Low Open Shrubland of *Ptilotus calostachyus, Ptilotus astrolasius* and *Acacia hilliana* on brown loam on eroded outcropping upper slopes and crests;
- HS TwTpTbr El Ep - Hummock Grassland of *Triodia wiseana, Triodia pungens* and *Triodia brizoides* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Mallee of *Eucalyptus pilbarensis* on red brown loam on steep hill slopes;
- HS TwTpTs El AprAaAan - Hummock Grassland of *Triodia wiseana, Triodia pungens* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia pruinocarpa, Acacia aptaneura* and *Acacia ancistrocar*pa on red brown loam on plains and low hills;
- ME TpTl ExAciCh PlApyGr - Hummock Grassland of *Triodia pungens* and *Triodia longiceps* with Low Woodland of *Eucalyptus xerothermica, Acacia citrinoviridis* and *Corymbia hamerselyana* over High Shrubland of *Petalostylis labicheoides*, *Acacia pyrifolia* var. *pyrifolia* and *Gossypium robinsonii* on red brown clay loam on medium drainage lines and surrounding floodplains;
- SP TpTb Eg PlAbAan - Hummock Grassland of *Triodia pungens* and *Triodia basedowii* with Open Mallee of *Eucalyptus gamophylla* and Shrubland of *Petalostylis labicheoides*, *Acacia bivenosa* and *Acacia ancistrocarpa* on red brown loamy sand on stony plains and foot slopes; and
- SP TsTwTp EgEt AbApaApr - Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia wiseana* and *Triodia pungens* with Very Open Mallee of *Eucalyptus gamophylla* and *Eucalyptus trivalva* over Open Shrubland of *Acacia bivenosa*, *Acacia pachyacra* and *Acacia pruinocarpa* on red brown sandy loam and clay loam on stony plains.

***Triodia* Open Hummock Grassland**

- HS Tp AaApr EfrAmmSgl - Open Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Acacia aptaneura* and *Acacia pruinocarpa* over Open Shrubland of *Eremophila fraseri, Acacia marramamba* and *Senna glutinosa* subsp. x *luerssenii* on red brown loam on hills;
- HS Tp El SggGwEll - Hummock Grassland of *Triodia pungens* with Scattered Low Trees of Eucalyptus *leucophloia* subsp. *leucophloia* and Scattered Shrubs of *Senna glutinosa* subsp. *glutinosa, Grevillea wickhamii* subsp. *hispidula* and *Eremophila latrobei* subsp. *latrobei* on skeletal orange brown loam on stony hill slopes; and
- SP TpTm AaExAca ApaEffAad - Hummock Grassland of *Triodia pungens* and *Triodia melvillei* with Low Open Woodland of *Acacia aptaneura, Eucalyptus xerothermica* and *Acacia catenulata* subsp. *occidentalis* and Open Shrubland of Acacia pachyacra, Eremophila forrestii subsp. forrestii and *Acacia adsurgens* on red brown clay loam or silty loam on stony plains and floodplains.

Clearing Description

Central Pilbara West Exploration Project.
BHP Billiton Iron Ore Pty Ltd proposes to clear up to 1,000 hectares of native vegetation within a boundary of approximately 97,680 hectares, for the purposes of rehabilitation, geotechnical investigations, mineral exploration, monitoring facilities, hydrogeological drilling and associated activities. The project is located between Port Hedland and Newman, within the Shires of Ashburton and East Pilbara.

Vegetation Condition

Excellent: Vegetation structure intact; disturbance 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 7139/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 18 August 2016 and was valid from 10 September 2016 to 30 November 2031. The permit authorised the clearing of up to 1,000 hectares of native vegetation within a boundary of approximately 97,680 hectares, for the purpose of rehabilitation, geotechnical investigations, access tracks, mineral exploration, hydrogeological drilling, water bores and associated activities.

The objective of clearing permit application CPS 7139/1 was to consolidate five existing clearing permits held by BHP Billiton Iron Ore Pty Ltd. Based on reported annual clearing for the existing live permits within the application area, a total of 390.68 hectares of native vegetation has been cleared out of a possible 1,027.35 hectares approved to be cleared. While this does not take into consideration areas cleared under Part IV approvals, the application to clear up to 1,000 hectares within a clearing permit boundary of 97,680 hectares resulted in an increase in the amount of native vegetation proposed to be cleared by approximately 363.33 hectares, and an increase in the clearing permit boundary by approximately 60,965 hectares. The increased area to be cleared and increased clearing permit boundary incorporated additional areas of clearing required within tenure that was rolled into the State Agreement Mineral Lease ML 281SA.

CPS 7139/2 was granted on 19 December 2016, amending the permit to update the tenure listed on the permit, following the conversion of several Exploration Licences to State Agreement Act tenure. The conversion of the tenements occurred on 13 June 2017. Tenements E47/1429, E47/1874, E47/1875 and E47/2500 were removed from the permit and replaced by ML249SA. The tenure conversion resulted in a slight reduction in the permit boundary due to a minor realignment of tenement boundaries. In addition, an administrative error in CPS 7139/1 was corrected by adding Exploration Licences 47/1540 and 47/1870 to the tenure listed on the amended permit.

On 1 June 2018, the Permit Holder applied to amend CPS 7139/2 to include monitoring facilities to the purpose of the permit.

3. Assessment of application against Clearing Principles

Comments

BHP Billiton Iron Ore Pty Ltd applied to amend the purpose of the permit to include monitoring facilities. The size of the area approved to clear (1,000 hectares), and the permit boundaries remain unchanged. The amendment is 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 reports CPS 7139/1 and 7139/2.

Methodology

GIS Database:
- DPaW Tenure
- Hydrography, Lakes
- Hydrography, Linear
- Imagery
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers
- Threatened and Priority Flora
- Threatened Fauna

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

Comments

There are several 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 numerous 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 25 June 2018 by the 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

BHP Billiton (2016) Central Pilbara West Strategic Exploration NVCP, Native Vegetation Clearing Permit Application Supporting Document for Exploration Drilling. BHP Billiton Iron Ore Pty Ltd, Western Australia, June 2016.

DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 26 June 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.