

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5105/2

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Iron Ore Pty Ltd

1.3. Property details

Property: Miscellaneous Licence 47/92

Miscellaneous Licence 52/99 Miscellaneous Licence 52/141

Iron Ore (Mount Newman) Agreement Act 1964, Mineral Lease 244SA (AML 70/244)

Iron Ore (Mount Goldsworthy) Agreement Act 1964, Mineral Lease 281SA (AML 70/281)

Local Government Area: Shire of East Pilbara

Colloquial name: Jinidi Iron Ore Mine Project

1.4. Application

Clearing Area (ha) No. Trees Method of Clearing For the purpose of:

1,221 Mechanical Removal Construction, Operation and Maintenance of Power

Substations, Transmission Lines and all Associated

Activities

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 1 February 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):

- 18: Low woodland; mulga (Acacia aneura);
- 29: Sparse low woodland; mulga, discontinuous in scattered groups; and
- 82: Hummock grasslands, low tree steppe; snappy gum over Triodia wiseana.

Numerous flora and vegetation surveys have been undertaken over the application area and surrounding region BHP (2017). A consolidated vegetation survey has been undertaken by Onshore Environmental based upon surveys undertaken in 2017, 2016 and 2014. The following 89 vegetation communities were recorded as occurring within the application area:

Acacia Low Open Forest

FP AaEx TtSesuErc: Low Open Forest of Acacia aptaneura and Eucalyptus xerothermica with Tussock Grassland of Themeda triandra, Setaria surgens and Eragrostis cumingii with Low Open Shrubland of Ptilotus obovatus on drainage areas with brown silty clay loam;

GG Acao ErmuArob PsIFib: Low Open Forest of *Acacia catenulata* subsp. *occidentalis* over Open Tussock Grassland of *Eriachne mucronata* and *Aristida obscura* with High Open Shrubland of *Psydrax latifolia* and *Ficus brachypoda* in gullies with brown silty loam;

HC AcaoAa Ep Segl: Low Open Forest of *Acacia catenulata* subsp. *occidentalis* and *Acacia aptaneura* with Very Open Mallee of *Eucalyptus pilbarensis* and Open Shrubland of *Senna glutinosa* subsp. *x luerssenii* on breakaways with brown sandy loam;

ME AciAaCoas AaAci ChfEnpo: Low Open Forest of Acacia citrinoviridis, Acacia aptaneura and Corymbia aspera over High Shrubland of Acacia aptaneura and Acacia citrinoviridis over Open Tussock Grassland of Chrysopogon fallax and Enneapogon polyphyllus on medium drainage lines with brown sandy clay loam;

SL AcaoAayApr Tm Erfr: Low Open Forest of *Acacia catenulata* subsp. *occidentalis*, *Acacia ayersiana* and *Acacia pruinocarpa* over Open Hummock Grassland of *Triodia melvillei* and Open Shrubland of *Eremophila fraseri* on hardpan plains with brown silty clay loam;

Acacia Low Woodland

HC AaAcaoEll GrbArPsl PtoSegl: Low Woodland of *Acacia aptaneura*, *Acacia catenulata* subsp. occidentalis and *Eucalyptus leucophloia* subsp. leucophloia with High Open Shrubland of *Grevillea berryana*, *Acacia rhodophloia* and *Psydrax latifolia* over Low Open Shrubland of *Ptilotus obovatus* and *Senna glutinosa* subsp. *x luerssenii* on mesa crests with brown sandy loam;

SP AaGrbAcao Aa ArcAriEnpo: Low Woodland of Acacia aptaneura, *Grevillea berryana* and *Acacia catenulata* subsp. *occidentalis* over High Shrubland of *Acacia aptaneura* over Open Tussock Grassland of *Aristida contorta*, *Aristida inaequiglumis* and *Enneapogon polyphyllus* on stony plains with brown sandy clay loam;

Acacia Open Scrub

MI AbAancAm Tp Eg: Open Scrub of *Acacia bivenosa*, *Acacia ancistrocarpa* and *Acacia monticola* with Open Hummock Grassland of *Triodia pungens* and Very Open Mallee of *Eucalyptus gamophylla* in minor drainage lines with brown sandy loam;

MI AmAnlAanc Tp EIICh: Open Scrub of Acacia monticola, Androcalva luteiflora and Acacia ancistrocarpa with Open Hummock Grassland of *Triodia pungens* and Low Open Woodland of *Eucalyptus leucophloia* subsp. leucophloia and Corymbia hamersleyana on minor drainage lines with brown sandy loam;

Aristida Tussock Grassland

SL ArcChfEnpo AaEx PtoErlc: Tussock Grassland of *Aristida contorta, Chrysopogon fallax* and *Enneapogon polyphyllus* with Low Woodland of *Acacia aptaneura* and *Eucalyptus xerothermica* and Low Open Shrubland of *Ptilotus obovatus* and *Eremophila lanceolata* on hardpan plains on brown sandy clay loam;

SL ArcErflErpg Erlc AaAco: Tussock Grassland of *Aristida contorta, Eriachne flaccida* and *Eragrostis pergracilis* with Low Shrubland of *Eremophila lanceolata* and Low Open Woodland of *Acacia aptaneura* and *Acacia catenulata* subsp. *occidentalis* on hardpan plains with red light clay;

Cenchrus Closed Tussock Grassland

FP CcChf EvEco AciHall: Closed Tussock Grassland of *Cenchrus ciliaris* and *Chrysopogon fallax* with Woodland of *Eucalyptus victrix* and *Eucalyptus camaldulensis* var. *obusa* and Low Open Woodland of *Acacia citrinoviridis* and *Hakea lorea* subsp. *lorea* on floodplain with brown clay loam;

MI Cc ApAp Ate: Closed Tussock Grassland of *Cenchrus ciliaris with Low Open Forest of Acacia aptaneura and Acacia paraneura and Scattered Tall Shrubs of Acacia tetragonophylla in minor drainage lines with brown light clav:

Cenchrus Tussock Grassland

ME CcTt ExAciAa PlAbAnl: Tussock Grassland of *Cenchrus ciliaris and Themeda triandra with Low Woodland of Eucalyptus xerothermica, Acacia citrinoviridis and Acacia aptaneura and Open Shrubland of Petalostylis labicheoides, Acacia bivenosa and Androcalva luteiflora on medium/minor drainage lines with brown sandy clay loam;

Eragrostis Tussock Grassland

GP ErxUocChf ExApCoas Erlo: Tussock Grassland of *Eragrostis xerophila, Urochloa occidentalis* var. *ciliata* and *Chrysopogon fallax* with Low Open Woodland of *Eucalyptus xerothermica*, *Acacia aptaneura* and *Corymbia aspera* and Scattered Tall Shrubs of *Eremophila longifolia* on gilgai drainage area with brown light medium clay;

Eucaltyptus Low Woodland

MA Ev Tp TtEuaCya: Low Woodland of *Eucalyptus victrix* with Open Hummock Grassland of *Triodia pungens* and Open Tussock Grassland of *Themeda triandra*, *Eulalia aurea* and *Cymbopogon ambiguus* on major drainage lines with brown sand;

Eucalyptus Open Forest

MA EcoEv Cyv CcTt: Open Forest of *Eucalyptus camaldulensis* var. *obtusa* and *Eucalyptus victrix* over Sedges of *Cyperus vaginatus* with Open Tussock Grassland of *Cenchrus ciliaris* and *Themeda triandra* on major drainage line on brown sand;

Eucalyptus Open Woodland

MA ECoEv AciAcp Mg: Open Woodland of *Eucalyptus camaldulensis* var. *obtusa* and *Eucalyptus victrix* over Low Open Woodland of *Acacia citrinoviridis* and *Acacia coriacea* subsp. *pendens* over High Open Shrubland of *Melaleuca glomerata* on river bed with brown sand;

Eucalyptus Woodland

MA EcoEv AciAcp TtEuaCc: Woodland of Eucalyptus camaldulensis var. obtusa and Eucalyptus victrix over Low Woodland of Acacia citrinoviridis and Acacia corriacea subsp. pendens over Tussock Grassland of Themeda triandra, Eulalia aurea and *Cenchrus ciliaris on major drainage lines with brown sand;

MA EvAci TtErt: Woodland of Eucalyptus victrix over Low Woodland of Acacia citrinoviridis over Open Tussock Grassland of Themeda triandra and Eriachne tenuiculmis on major drainage lines with brown sand;

Ptilotus Low Shrubland

SP PtoErffSol EncChfErer CoasApr: Low Shrubland of Ptilotus obovatus, Eremophila forrestii subsp. forrestii and

Solanum lasiophylum over Open Tussock Grassland of Enneapogon caerulescens, Chrysopogon fallax and Eragrostis eriopoda with Low Open Woodland of Corymbia aspera and Acacia pruinocarpa on calcrete stony plains with brown sandy clay loam;

Themeda Tussock Grassland

FP Tt ApyAnIPI Tp: Tussock Grassland of *Themeda triandra* with High Shrubland of *Acacia pyrifolia, Androcalva luteiflora* and *Petalostylis labichoides* and Open Hummock Grassland of *Triodia pungens* on floodplains with brown sand:

ME TtCyaCc EvExAci PlAnlGoro: Tussock Grassland of *Themeda triandra, Cymbopogon ambiguus* and *Cenchrus ciliaris* with Low Woodland of *Eucalyptus victrix, Eucalyptus xerothermica* and *Acacia citrinoviridis* with High Open Shrubland of *Petalostylis labicheoides, Androcalva luteiflora* and *Gossypium robinsonii* on medium drainage lines with brown sand;

Triodia Hummock Grassland

HC TbrTw Ab Ep: Hummock Grassland of *Triodia brizoides* and *Triodia wiseana* with Open Shrubland of *Acacia bivenosa* and Very Open Mallee of *Eucalyptus pilbarensis* on steep scree slopes with brown sandy loam;

HC TsTp AptyAhi HcEll: Hummock Grassland *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia pungens* with Low Open Shrubland of *Acacia ptychophylla* and *Acacia hilliana* and Scattered Low Trees of *Hakea chordophylla* and *Eucalyptus leucophloia* subsp. *leucophloia* on hillcrests with brown sandy loam;

HS Trag Et Ab: Hummock Grassland of *Triodia angusta* and *Triodia wiseana* with Open Mallee of *Eucalyptus trivalva* over Open Shrubland of *Acacia bivenosa* on hillslopes with brown sandy loam;

HS Ts EllCddCh AancAadsAb: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia deserticola* subsp. *deserticola* and *Corymbia hamersleyana* and Open Shrubland of *Acacia ancistrocarpa*, *Acacia adsurgens* and *Acacia bivenosa* on footslopes and hillslopes with brown sandy loam;

HS TsTp AaEllApr ErfrEreAsi: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia pungens* with Low Woodland of *Acacia aptaneura*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Acacia pruinocarpa* with Open Shrubland of *Eremophila fraseri*, *Eremophila exilifolia* and *Acacia sibirica* on hillslopes with brown sandy loam;

HS TsTp EllAaApr AiAancAb: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Acacia aptaneura* and *Acacia pruinocarpa* with High Open Shrubland of *Acacia inaequilatera*, *Acacia ancistrocarpa* and *Acacia bivenosa* on hillslopes with brown sandy loam;

HS TwTbrTp AiAb Ell: Hummock Grassland of *Triodia wiseana*, *Triodia brizoides* and *Triodia pungens* with High Open Shrubland of *Acacia inaequilatera* and *Acacia bivenosa* and Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* on steep scree slopes and undulating hills with brown sandy loam;

SL TsTp AaAprAay Erff: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia* pungens with Low Woodland of *Acacia aptaneura*, *Acacia pruinocarpa* and *Acacia ayersiana* and Open Shrubland of *Eremophila forrestii* subs. *forrestii* on hardpan plains with brown silty clay loam;

FS TpTsTrag Cc AaApr: Hummock Grassland of *Triodia pungens, Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia angusta* over Open Tussock Grassland of *Cenchrus ciliaris with Low Open Woodland of Acacia aptaneura and Acacia pruinocarpa on footslopes with brown silty loam;

HC TsTp Ell Ahi: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia pungens* with Low Open Woodland of *Eucalyptus leeuophloia* subsp. *leucophloia* and Low Open Shrubland of *Acacia hilliana* on brown sandy loam on hillcrests and hillslopes;

HS TpTbr AiAmaAb Inr: Hummock Grassland of *Triodia pungens* and *Triodia brizoides* with Open Shrubland of *Acacia inaequilatera*, *Acacia maitlandii* and *Acacia bivenosa* and Low Open Shrubland of *Indigofera rugosa* on brown sandy loam on hillslopes;

HS TragTsTw AbAsy: Hummock Grassland of *Triodia angusta, Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia wiseana* with High Open Shrubland of *Acacia bivenosa* and *Acacia synchronicia* on undulating low hills with brown silty loam;

HS TsTw EgEse Ab: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia* wiseana with Low Open Mallee of *Eucalyptus gamophylla* and *Eucalyptus socialis* subsp. *eucentrica* and High Open Shrubland of *Acacia bivenosa* on undulating low hills with brown sandy loam;

HS Tw Ab Ese: Hummock Grassland of *Triodia wiseana* with Open Shrubland of *Acacia bivenosa* and Very Open Mallee of *Eucalyptus socialis* subsp. *eucentrica* on undulating calcrete low hills with brown sandy clay loam;

HS Tw AiAbApa Ell: Hummock Grassland of *Triodia wiseana* with Open Shrubland of *Acacia inaequilatera*, *Acacia bivenosa and Acacia pachyacra* and Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* on hillslopes with brown sandy loam;

Triodia Open Hummock Grassland

ME TpAmAnlApy ExCh: Open Hummock Grassland of *Triodia pungens* High Shrubland of *Acacia monticola*, Androcalva luteiflora and Acacia pyrifolia and Low Open Woodland of Eucalyptus xerothermica and Corymbia hamersleyana on medium drainage lines and floodplains with brown sandy loam;

FP Tp TxHall ApaAbApy: Open Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Eucalyptus xerothermica* and *Hakea lorea* subsp. *lorea* with Open Shrubland of *Acacia pachycra*, *Acacia bivenosa* and *Acacia pyrifolia* on floodplains with brown loamy sand;

HS Trag Aa AsyAa: Open Hummock Grassland of *Triodia angusta* with Low Open Woodland of *Acacia aptaneura* and High Open Shrubland of *Acacia synchronicia* and *Acacia aptaneura* on hillslopes on brown silty loam;

SA Tp CyoCcPamu ApaAbPl: Open Hummock Grassland of *Triodia pungens* over Open Tussock Grassland *Cymbopogon obtectus*, **Cenchrus ciliaris* and *Paraneurachne muelleri* with High Open Shrubland of *Acacia pachyacra*, *Acacia bivenosa* and *Petalostylis labicheoides* on sandy plains on brown sandy loam;

SP TpTmTs AaAci ArAa: Open Hummock Grassland of *Triodia pungens, Triodia melvillei* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Acacia aptaneura* and *Acacia citrinoviridis* over High Open Shrubland of *Acacia rhodophloia* and *Acacia aptaneura* on stony plains with brown sandy Loam:

SP Trag CcTtEua AaAprEx: Open Hummock Grassland of *Triodia angusta* over Open Tussock Grassland of *Cenchrus ciliaris, Themeda triandra and Eulalia aurea with Low Open Woodland of Acacia aptaneura, Acacia pruinocarpa and Eucalyptus xerothermica on sandy/stony plains with brown sandy loam;

Acacia Closed Scrub

MI AmPIAnI Tp EllCh: Closed Scrub of *Acacia monticola, Petalostylis labicheoides* and *Androcalva luteiflora* over Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* in minor drainage lines;

Acacia Open Scrub

MI AbAancAten Tp Eg: Open Scrub Acacia bivenosa, Acacia ancistrocarpa and Acacia tenuissima with Open Hummock Grassland of *Triodia pungens* and Very Open Mallee of *Eucalyptus gamophylla* in minor drainage lines;

Cenchrus Tussock Grassland

SP CcArlaChf AaCoas AbAsy: Tussock Grassland of *Cenchrus ciliaris, Aristida latifolia and Chrysopogon fallax with Low Woodland of Acacia aptaneura and Corymbia aspera and High Open Shrubland of Acacia bivenosa and Acacia synchronicia on stony plains;

Corymbia Low Woodland

GG CfAprAa CyaErmu DopErffPl: Low Woodland of *Corymbia ferriticola*, *Acacia pruinocarpa* and *Acacia aptaneura* over Open Tussock Grassland of *Cymbopogon ambiguus* and *Eriachne mucronata* with High Open Shrubland of *Dodonaea pachyneura*, *Eremophila forrestii* subsp. *forrestii* and *Petalostylis labicheoides* on cliff lines:

Cymbopogon Tussock Grassland

MA CyaCcErt EvAciEx GoroApyPI: Tussock Grassland of *Cymbopogon ambiguus* (riverine form), *Cenchrus ciliaris and Eriachne tenuiculmis with Low Open Woodland of Eucalyptus victrix, Acacia citrinoviridis and Eucalyptus xerothermica and High Open Shrubland of Gossypium robinsonii, Acacia pyrifolia and Petalostylis labicheoides in major drainage lines;

Eulalia Open Tussock Grassland

FP EuaTtCc ExChAci PlApyAb: Open Tussock Grassland of *Eulalia aurea, Themeda triandra* and **Cenchrus ciliaris* with Low Open Woodland of *Eucalyptus xerothermica, Corymbia hamersleyana* and *Acacia citrinoviridis* and High Open Shrubland of *Petalostylis labicheoides, Acacia pyrifolia* and *Acacia bivenosa* on floodplains;

Gossypium Shrubland

ME GoroAnlAb BoeTtCya Ev: Shrubland of *Gossypium robinsonii*, *Androcalva luteiflora* and *Acacia bivenosa* over Open Tussock Grassland of *Bothriochloa ewartiana*, *Themeda triandra* and *Cymbopogon ambiguus* (riverine form) with Low Open Woodland of *Eucalyptus victrix* in medium drainage lines;

Triodia Hummock Grassland

HS TaTwTb Ell AsyAb: Hummock Grassland of *Triodia angusta, Triodia wiseana* and *Triodia brizoides* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and High Open Shrubland of *Acacia synchronicia* and *Acacia bivenosa* on hillslopes;

HS TbTw Ai AspAaaHete: Hummock Grassland of *Triodia brizoides* and *Triodia wiseana* with High Open Shrubland of *Acacia inaequilatera* and Low Open Shrubland of *Acacia spondylophylla*, *Acacia adoxa* var. *adoxa* and *Heliotropium tenuifolium* on ironstone/dolerite screeslopes;

HS TpTb Inr Ai: Hummock Grassland of *Triodia pungens* and *Triodia brizoides* with Low Shrubland of *Indigofera rugosa* and High Open Shrubland of *Acacia inaequilatera* on hillslopes;

SA Tp EgEx ApaAb: Hummock Grassland of *Triodia pungens* with Very Open Mallee of *Eucalyptus gamophylla* and *Eucalyptus xerothermica* and High Open Shrubland of *Acacia pachyacra* and *Acacia bivenosa* on sand plains;

HS TpTbTw Ell AbSeglErpl: Hummock Grassland of *Triodia pungens, Triodia brizoides* and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and High Open Shrubland of *Acacia bivenosa, Senna glutinosa* subsp. *x luerssenii* and *Eremophila platycalyx* on steep hillslopes;

HS TsTp ArAaxr AaEll: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia* pungens with Low Open Shrubland of *Acacia ptychophylla* and *Acacia hilliana* and Scattered Low Trees of *Hakea* chordophylla and *Eucalyptus leucophloia* subsp. *leucophloia* on hillslopes;

FS TsTp EgvAbAancAi: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia* pungens with Very Open Mallee of *Eucalyptus gamophylla* and High Open Shrubland of *Acacia bivenosa, Acacia* ancistrocarpa and *Acacia inaequilatera* on footslopes;

HS TsTp EllChHc AhiAaaGoo: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Hakea chordophylla* and *Corymbia hamersleyana* and Low Open Shrubland of *Acacia adoxa* var. *adoxa* and *Gompholobium oreophilium* on hillslopes;

HS Ts AspAhiGoo Ell: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Shrubland of *Acacia spondylophylla*, *Acacia hilliana* and *Gompholobium oreophilum* and Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* on hillslopes and crests;

CP TwTa Ese PIAb: Hummock Grassland of *Triodia wiseana* and *Triodia angusta* with Very Open Mallee of *Eucalyptus socialis* subsp. *eucentrica* and High Open Shrubland of *Petalostylis labicheoides* and *Acacia bivenosa* on calcrete low rises and hills:

Triodia Open Hummock Grassland

SA Tp CyoCcPamu ApaAbPl: Open Hummock Grassland of *Triodia pungens* over Open Tussock Grassland Cymbopogon obtectus, *Cenchrus ciliaris and Paraneurachne muelleri with High Open Shrubland of Acacia pachyacra, Acacia bivenosa and Petalostylis labicheoides on sandy plains;

Acacia Low Open Forest

FP AaApr EcuClSp TpTw: Low Open Forest of *Acacia aptaneura* and *Acacia pruinocarpa* over with Low Open Shrubland of *Eremophila cuneifolia, Corchorus lasiocarpus* subsp. *parvus* and *Solanum phlomoides* over Hummock Grassland of *Triodia pungens* and *Triodia wiseana* on red brown clay loam on stony flood plain;

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;

HS AcaAaApr SaEllAb TbrTw: Low Open Forest of Acacia catenulata subsp. occidentalis, Acacia aptaneura and Acacia pruinocarpa over Open Shrubland of Scaevola acacioides, Eremophila latrobei subsp. latrobei and Acacia bivenosa over Open Hummock Grassland of Triodia brizoides and Triodia wiseana on red brown clay loam on breakaways and steep hill slopes;

Acacia Open Heath

MI AadAluDpa Tp EICh: Open Heath of *Acacia adsurgens, Androcalva luteiflora* and *Dodonaea pachyneura* over Open Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* on brown loamy sand on minor drainage lines;

Acacia Open Scrub

MI AtpPIAmo TpTs ChEI: 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 AmoAanPI ChEI TtAin: Shrubland of Acacia monticola, Acacia ancistrocarpa and Petalostylis labicheoides with Scattered Low Trees of Corymbia hamersleyana and Eucalyptus leucophloia subsp. leucophloia over Open Tussock Grassland of Themeda triandra and Aristida inaequilatera on red loamy sand on minor drainage lines;

Eucalyptus Low Open Forest

MA EcEvEx ApyAtpGr TtEaCpr: Low Open Forest of *Eucalyptus camaldulensis* subsp. *refulgens, Eucalyptus victrix* and *Eucalyptus xerothermica* 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;

Eucalyptus Open Forest

MA EcMaEv AciAcp AbGsGr: Open Forest of Eucalyptus camaldulensis var. refulgens, Melaleuca argentea and Eucalyptus victrix over Low Open Woodland of Acacia citrinoviridis and Acacia coriacea subsp. pendens over Shrubland of Acacia bivenosa, Gossypium sturtianum and Gossypium robinsonii on brown silty sand and clay along Weeli Wolli Creek;

Eucalyptus Woodland

MA EcEv AciApyMg CcEaTt: Woodland of Eucalyptus camaldulensis subsp. refulgens and Eucalyptus victrix over High Open Shrubland of Acacia citrinoviridis, Acacia pyrifolia var. pyrifolia and Melaleuca glomerata over Tussock Grassland of *Cenchrus ciliaris, Eulalia aurea and Themeda triandra on brown loamy sand on channels of major drainage lines;

Petalostvlis Shrubland

MI PIAtpAmo ChEI TwTp: Shrubland of *Petalostylis labicheoides*, *Acacia tumida* var. *pilbarensis* and *Acacia monticola* with Low Open Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Hummock Grassland of *Triodia wiseana* and *Triodia pungens* on red brown loam on minor drainage Lines:

Themeda Tussock Grassland

ME TtCfEa ExEvCh PIApaApy: Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Eulalia aurea* with Low Open Woodland of *Eucalyptus xerothermica*, *Eucalyptus victrix* and *Corymbia hamersleyana* and Shrubland of *Petalostylis labicheoides*, *Acacia pachyacra* and *Acacia pyrifolia* var. *pyrifolia* on red sandy loam on medium drainage lines;

Triodia Hummock Grassland

FP Tb AaApr Eff: Hummock Grassland of *Triodia basedowii* with Low Open Woodland of *Acacia aptaneura* and *Acacia pruinocarpa* over Open Shrubland of *Eremophila forrestii* subsp. *forrestii* on red sandy loam on floodplains;

SA Tb ChEg SpBeKp: Hummock Grassland of *Triodia basedowii* with Low Open Woodland of *Corymbia hamersleyana* and *Eucalyptus gamophylla* over Low Open Shrubland of *Scaevola parvifolia, Bonamia erecta* and *Kennedia prorepens* on red loamy sand on sand plains;

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 footslopes;

ME TpTI ExAciCh PIApyGr: Hummock Grassland of *Triodia pungens* and *Triodia longiceps* with Low Woodland of *Eucalyptus xerothermica*, *Acacia citrinoviridis* and *Corymbia hamersleyana* 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;

HC TpTwTs EICh AarGoKv: Hummock Grassland of *Triodia pungens*, *Triodia wiseana* and *Triodia* sp. Shovelanna Hill (S. van Leeeuwin 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Shrubland of *Acacia arida*, *Gompholobium oreophilum* and *Keradrinia velutina* subsp. *elliptica* on red brown loam on hills;

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 footslopes 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 footslopes and low undulating hills;

HS TsTwTp EICh 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;

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;

CP TwTa Es AbPIApy: 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;

HS Tw ElChHc AanAbAa: Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* and *Hakea chordophylla* and Open Shrubland of *Acacia ancistrocarpa*, *Acacia bivenosa* and *Acacia aptaneura* on red sandy loam on hill slopes;

HS TwTbrTs ElExCh PcaPasAhi: Hummock Grassland of *Triodia wiseana, Triodia brizoides* and *Triodia* sp. Shovellana Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia, 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 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 ancistrocarpa* on red brown loam on plains and low hills;

Triodia Open Hummock Grassland

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;

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. *ispidula* and *Eremophila latrobei* subsp. *latrobei* on skeletal orange brown loam on stony hill slopes;

HS TsTpTb AaAprAw AteEexEll: Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia pungens* and *Triodia basedowii* with Low Open Woodland of *Acacia aptaneura*, *Acacia pruinocarpa* and *Acacia wanyu* and Open Shrubland of *Acacia tetragonophylla*, *Eremophila exilifolia* and *Eremophila latrobei* subsp. *latrobei* on red sandy loam on hill slopes.

Denotes weed species

Clearing Description

BHP Billiton Iron Ore Pty Ltd has applied to clear up to 1,221 hectares of native vegetation, within a broader area of approximately 10,587 hectares, for the purpose of a power transmission line, village access road, telecommunications infrastructure, borrow pits and associated infrastructure.

Clearing will be conducted by mechanical means.

Vegetation Condition

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994);

To

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

Comment

The vegetation condition was determined by botanists from ENV (2009).

Clearing permit CPS 5105/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 6 September 2012. The clearing permit authorised the clearing of up to 1,206 hectares of native vegetation within a total boundary of approximately 4,082 hectares for the purpose of a power transmission line, village access road, telecommunications infrastructure, borrow pits and associated infrastructure.

BHP Billiton Iron Ore Pty Ltd has applied to amend CPS 5105/1, for the purpose of increasing the amount of approved clearing, increasing the permit boundary, increasing the boundary of vegetation and fauna management areas, altering the purpose of clearing, removing Condition 9 from the Permit, increase clearing by one hectare in Condition 10(a), and extending the expiry date, final reporting date and period in which clearing is allowed to be undertaken.

3. Assessment of application against clearing principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to amend CPS 5105/1 for the purpose of:

- Increasing the permit boundary by 6,504 hectares;
- Increasing the amount of approved clearing by 15 hectares;
- Increase the boundaries of vegetation and fauna management areas;
- Increase the amount of clearing permitted to two hectares for part (a) of the vegetation management condition;
- Remove the flora management condition;
- · Extend the duration of the permit

The amendment application area is located in the Hamersley subregion of the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). At a broad scale, vegetation can be described as Mulga low woodlands over bunch grasses on fine textured soils in valley floors and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002). Rare features of the subregion include gorges of the Hamersley Ranges (particularly those within Karijini National Park), Palm Spring, Duck Creek and Themeda grasslands (CALM, 2002). Permanent spring systems such as Weeli Wolli are also listed for their importance as refugia (CALM, 2002).

According to available databases, there are no Threatened Ecological Communities within the amendment application area (GIS Database). However, the amendment application area lies within the buffer zones for two Priority Ecological Communities (PEC), both related to Weeli Wolli Springs vegetation community (GIS Database). BHP (2012) advise that detailed surveys of the Weeli Wolli Springs PEC have been conducted by Onshore Environmental Consultants and it has been determined that the application area does not impede on either PEC.

Numerous fauna surveys have been conducted within and surrounding the application area (BHP, 2012). These surveys have identified eight fauna habitats as potentially occurring within the application area (BHP, 2012). The gorge/gully and riverine habitats have been identified as the most significant habitats within the application area, however the nature of the proposed clearing is not likely to have a significant impact on these habitat types.

The amendment application area intersects two significant watercourses, Weeli Wolli Creek and Coondiner Creek (BHP, 2012; 2017; GIS Database). CPS 5105/1 permitted the clearing of one hectare of riparian vegetation within each of these creeks. BHP (2017) have advised that clearing of an additional hectare of

riparian vegetation associated with Weeli Wolli Creek is required due to the widening of the application area capturing additional drainage areas. BHP Billiton Iron Ore Pty Ltd have increased the size of the vegetation management areas to minimise further potential impacts to Weeli Wolli Creek.

Condition 9 of CPS 5105/1 relates to the management the formerly Threatened flora species *Lepidium catapycnon* and the Priority 2 *Euphorbia australis* var. *glabra*. *Lepidium catapycnon* has been removed from the Wildlife Conservation (Rare Flora) Notice and is now considered to be Priority 4 (DPaW, 2018). *Lepidium catapycnon* has a range of approximately 300 kilometres within the Pilbara region and is now known to be in sufficient numbers and secure (Western Australian Herbarium, 1998 -). The Priority 2 flora species *Euphorbia australis* var. *glabra* had previously been recorded from three locations within the application area, however, these locations have been revisited and were not able to be relocated (BHP, 2017). This species is widely distributed in the across the Pilbara region and it is considered unlikely that clearing within the amendment application area will significantly impact this species. The many flora surveys over the permit area have not recorded any other species of rare flora and the permit area is not considered likely to support any rare flora species (BHP, 2017). Given the above, the proposed clearing is not likely to be at variance to Principle (c).

The assessment of the remaining Clearing Principles remains unchanged and details can be found in decision report CPS 5105/1.

Methodology

BHP (2012)

BHP (2017) CALM (2002) DPaW (2018)

Western Australian Herbarium (1998 -)

GIS Database:

- IBRA WA (regions subregions)
- Threatened Ecological Sites Buffered

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

There are two Native Title Claims (WC05/6 and WC11/6) over the area under application (DPLH, 2018). These claims have been registered with the 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 several 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 clearing permit application was advertised on 25 December 2017 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received.

Methodology DPLH (2018)

4. References

- BHP (2012) Jinidi Transmission Line and Accommodation Village Access Road Application to Clear Native Vegetation (Purpose) Permit under the *Environmental Protection Act 1986*. Report prepared by BHP Billiton Iron Ore Pty Ltd, June 2012.
- BHP (2017) Newman to Mining Area C Power Corridor Native Vegetation Clearing Permit Application Supporting Document, Application to Amend CPS 5105/1. Report prepared by BHP Billiton Iron Ore Pty Ltd, November 2017.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management
- DPaW (2018) NatureMap Mapping Western Australia Biodiversity, Department of Parks and Wildlife, http://naturemap.dpaw.wa.gov.au/default.aspx (Accessed 22 January 2018).
- DPLH (2018) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. https://maps.daa.wa.gov.au/ahis/ (Accessed 22 January 2018).
- ENV (2009) Newman to Yandi Transmission Line Flora and Vegetation Assessment. Unpublished Report prepared for Worley Parsons Services Pty Ltd dated November 2009.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Western Australian Herbarium (1998 -). FloraBase the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. https://florabase.dpaw.wa.gov.au/ (Accessed 22 January 2018)

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. Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the (d) 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. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land (g) degradation. Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the (h) 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.