Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2816/4
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Hamersley Iron Pty Ltd**

1.3. Property details

Property: *Iron Ore (Hamersley Range) Agreement Act 1963*, Mineral Lease 4SA (AML 70/4)
Local Government Area: Shire of Ashburton
Colloquial name: Tom Price Mine Development Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
114.9		Mechanical Removal	Mineral Production

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 August 2013

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 and are useful to look at vegetation in a regional context. The following Beard vegetation associations have been mapped within the application area (GIS Database):

Beard Vegetation Association 82: hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*;
Beard Vegetation Association 162: Shrublands; snakewood scrub; and
Beard Vegetation Association 567: Hummock grasslands, shrub steppe; mulga and Kanji over soft Spinifex and *Triodia basedowii* (GIS Database).

Pilbara Flora (2008) undertook a flora and vegetation survey of the application areas over 15 field days on two separate trips in the period between 5 April 2008 and 8 May 2008. Pilbara Flora (2008) identified 30 vegetation types within the survey area broadly associated with landforms. From vegetation maps provided by Pilbara Flora (2008), the assessor has identified the following 18 vegetation units as being the most likely to occur within the application area.

HILLS

1) Steep Hillsides Open Woodland:

Steep Hillsides associated with high relief Brockman Ranges with rocky outcropping and minimal soil development. The vegetation primarily consists of *Eucalyptus leucophloia* subsp. *leucophloia* and *Acacia pruinocarpa* low woodland over *Acacia hamersleyensis* shrubland over *Triodia epactia*, *Triodia pungens*, *Triodia wiseana* hummock grassland. Four conservation taxa were recorded in this vegetation type: *Indigofera ixocarpa*, *Eremophila magnifica* subsp. *magnifica*, *Olearia mucronata* and *Dampiera anonyma*. This vegetation unit is described as being in good condition and is generally weed free except where proximate to mining disturbances.

2) Breakaway Steep Hillside Shrubland:

Very steep breakaway hillsides with massive outcropping on high relief large Brockman Ranges. The soil consists of outcropping ironstone with minimal soil development in interstitial pockets. The vegetation primarily consists of *Eucalyptus leucophloia* subsp. l*eucophloia* low open woodland over *Acacia hamersleyensis*, *Acacia maitlandii* and *Acacia marramamba* open scrub over *Cryptandra monticola* and *Dodonaea petiolaris* open heath over *Eriachne mucronata*, *Triodia epactia* and *Triodia wiseana* tussock/hummock grassland. Four conservation taxa were recorded in this vegetation type*: Indigofera ixocarpa*, *Eremophila magnifica* subsp. *magnifica*, *Olearia mucronata* and *Sida* sp. Barlee Range. This unit is described as being in good condition with little weed infestation.

3) Rocky Hillside Dense Shrubland

Undulating colluvial upland plains with pebble scree. The vegetation primarily consists of *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia hamersleyensis*, *Acacia maitlandii* and *Acacia sibirica* open scrub over *Triodia epactia*, *Triodia wiseana* hummock grassland. No weed species were recorded within this

vegetation unit and it was reported as being in good to poor condition in areas of old gravel pits.

4) Rocky Hillside Acacia citrinoviridis Woodland

Sloping to undulating rocky hillsides with gravely ironstone and chert boulders. The vegetation consists of *Acacia citrinoviridis*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia ferriticola* subsp. *ferriticola* low open forest over *Dodonaea viscosa* and *Acacia maitlandii* shrubland over *Cymbopogon ambiguous* and *Triodia epactia* tussock hummock grasslands. The Priority 2 flora species *Indigofera ixocarpa* was common on disturbed areas within this vegetation unit. This vegetation unit is described as being in very poor condition as it has been extensively disturbed by previous mining and exploration and has moderate weed infestation.

5) Rocky Hillside Acacia Woodland

Sloping rocky ferruginous hillsides with rocky ironstone gravel. Vegetation consists of *Acacia citrinoviridis* and *Acacia aneura* var. *aneura* low open woodland over *Acacia maitlandii*, *Petalostylis labicheoides* and *Acacia kempeana* open heath over *Acacia spondylophylla* low shrubland over *Triodia wiseana* and *Triodia pungens* hummock grassland. This vegetation unit is described as being in very poor condition as it has been extensively disturbed by previous mining and exploration and has moderate weed infestation.

6) Hillside Mallee Woodland (Eucalyptus trivala dominant)

Gently undulating to steep smaller hillsides with pebble scree mantle. Vegetation consists of *Eucalyptus leucophloia* subsp. l*eucophloia* and *Acacia aneura* var. *conifera* open woodland over *Eucalyptus trivalva* low open forest over *Acacia hamersleyensis* and *Ptilotus obovatus* var. *obovatus* open shrubland over *Triodia epactia* and *Triodia wiseana* hummock grassland. This vegetation unit is described as being in good condition with no weed infestations.

7) Hillside Mulga Grove

Slight rocky knolls, bluffs and hillsides with ironstone silt matrix. Vegetation consists of *Acacia aneura* var. *aneura*, *Acacia aneura* var. *intermedia* and *Acacia pruinocarpa* low closed forest over *Dodonaea petiolaris*, *Eremophila phyllopoda*, *Eremophila platycalyx* and *Senna glutinosa* subsp. *pruinosa* open heath over *Triodia epactia*, *Triodia melvillei* and *Triodia wiseana* open hummock grassland. This vegetation unit is described as being in very good condition with minimal weed species present.

PLAINS

8) Colluvial Plain Mixed Woodland

Stony colluvial plains with stony mantle colluvium. Vegetation structure consists of *Eucalyptus leucophloia* subsp. *leucophloia*, *Eucalyptus trivalva*, *Acacia aneura* spp. and *Acacia pruinocarpa* low open woodland over *Acacia rhodophloia*, *Acacia sibirica* and *Acacia hamersleyensis* high shrubland over *Triodia melvillei* and *Triodia wiseana* hummock grassland. This vegetation unit is described as being in good condition with no weed infestations.

9) Colluvial Plain Mixed Dense Woodland

Low relief colluvial plains with colluvial ironstone scree. Vegetation structure consists of *Corymbia deserticola* subsp. *deserticola*, *Eucalyptus leucophloia* subsp. *leucophloia*, *Eucalyptus lucasii*, *Eucalyptus trivalva*, *Acacia aneura* var. *aneura*, *Acacia citrinoviridis* and *Acacia pruinocarpa* mixed species low woodland over *Acacia sibirica*, *Acacia hamersleyensis*, *Acacia monticola*, *Acacia rhodophloia*, *Acacia sibirica* and *Petalostylis labicheoides* closed scrub over *Cymbopogon ambiguous* and *Themeda* sp. Mt Barricade tussock grassland over *Triodia melvillei*, *Triodia wiseana* hummock grassland. This vegetation unit is described as being in good condition with no weed infestations.

10) Colluvial Plain Mulga Grove

Low relief colluvial plains with silt from mining runoff. Vegetation structure consists of *Acacia aneura* var. *aneura*, *Acacia aneura* var. *intermedia* and *Acacia pruinocarpa* low closed forest over *Triodia melvillei* open tussock grassland. This vegetation unit is described as being in very poor condition with massive silt runoff from nearby waste dumps and several weed species present.

11) Rocky Hillsides Drainage Line

Rocky drainage lines on hillsides containing rocky outcropping with soil development. Vegetation structure consists of *Acacia citrinoviridis*, *Acacia pruinocarpa* and *Eucalyptus leucophloia* subsp. *leucophloia* low closed woodland over *Petalostylis labicheoides*, *Dodonaea pachyneura*, *Dodonaea petiolaris* and *Hibiscus coatesii* open scrub over *Cymbopogon ambiguous*, *Eriachne mucronata* and a mixed *Themeda* sp. Mt Barricade (M.E. Trudgen 2471) and *Triodia pungens* tussock/hummock grassland. The Priority 3 Flora species *Sida* sp. Barlee Range (S Van Leeuwen 1642) was recorded within this vegetation unit. This vegetation unit is described as being in good condition with no weed infestations.

12) Rocky Hillsides Narrow Creek 2-3m width

Narrow creek at base of rocky hills with rock outcropping and pebblestones. Vegetation structure consists of *Acacia pruinocarpa* and *Eucalyptus leucophloia* subsp. *leucophloia l*ow woodland over *Acacia bivenosa*, *Acacia maitlandii*, *Acacia pyrifolia* var. *pyrifolia*, *Acacia spondylophylla*, *Dodonaea pachyneura*, *Gossypium robinsonii* and *Senna glutinosa* subsp. *glutinosa* shrubland over *Cenchrus ciliaris* closed grassland. The Priority Flora species *Sida* sp. Barlee Range (s Van Leeuwen 1642) was recorded within this vegetation unit. The vegetation unit is described as being in very poor condition due to a massive weed infestation of Buffel Grass (*Cenchrus ciliaris*).

13) Meadow Buffel Grass

Broad alluvial area at base of hills with alluvium soil. Vegetation structure consists of *Acacia citrinoviridis* and *Eucalyptus xerothermica* scattered low trees over *Acacia bivenosa* scattered shrubs over *Cenchrus ciliaris* closed tussock grassland. This vegetation unit is described as being in very poor condition due to massive infestation of Buffel Grass and minor occurrence of Ruby Dock (*Acetosa vesicaria*).

14) Mine Drainage Area Dense Woodland

Drainage line/creek from mining areas with a rocky creekbed covered by silt. Vegetation structure consists of *Eucalyptus leucophloia* subsp. *leucophloia*, *Acacia citrinoviridis*, *Acacia aneura* var. *intermedia* and *Acacia pruinocarpa* low woodland over *Acacia bivenosa*, *Acacia tumida* var. *pilbarensis* and *Petalostylis labicheoides* open scrub over *Panicum decompositum*, *Themeda* sp. Mt Barricade (M.E. Trudgen 2471), *Triodia pungens* and *Triodia wiseana* tussock/hummock grassland. This vegetation unit is described as being in very poor condition due to weeds and silt from mining areas.

MINESITE VEGETATION

15) Rehabilitation Colluvial Plains Shrublands

Rehabilitation over low relief colluvial plains with ripped colluvium. Vegetation structure consists of *Acacia hamersleyensis*, *Acacia pruinocarpa*, *Acacia rhodophloia*, *Acacia sibirica* and *Grevillea berryana* open scrub over *Triodia brizoides*, *Triodia epactia*, *Triodia melvillei* and *Triodia wiseana* hummock grassland. This vegetation unit is described as having poor quality native vegetation with no weed species recorded.

16) Regrowth Borrow Pit

Old borrow pit with no rehabilitation consisting of hardstand colluvium not ripped. Vegetation structure consists of *Acacia hamersleyensis*, *Acacia pruinocarpa*, *Acacia sibirica*, *Acacia synchronicia*, *Codonocarpus cotinifolius*, *Petalostylis labicheoides* shrubland over *Goodenia stobbsiana* scattered low herbland over *Eriachne mucronata*, *Triodia brizoides* and *Triodia melvillei* mixed tussock/hummock grassland. This vegetation unit is described as having very poor quality native vegetation with no weed species recorded.

17) Rehabilitation Stockpiles

Low stockpile with mine waste material. Vegetation structure consist of *Acacia ?colei*, *Acacia bivenosa* and *Acacia pruinocarpa*, *Salsola australis* high shrubland over *Melinis repens* and *Cenchrus ciliaris t*ussock grassland. This vegetation unit is described as having poor quality native vegetation with heavy weed infestations.

18) Rehabilitation Waste Dumps

Rehabilitated waste dump with mine waste. Vegetation structure consists *of Acacia ancistrocarpa*, *Acacia aneura* var. *aneura*, *Acacia bivenosa*, *Acacia citrinoviridis*, *Acacia hamersleyensis*, *Acacia sclerosperma*, *Acacia aneura* var. *conifera* and *Acacia pyrifolia* var. *pyrifolia* open scrub over *Maireana georgei* and *Acetosa vesicaria* low shrubland. This vegetation unit is described as having poor quality native vegetation with heavy weed infestations of Ruby Dock.

An additional survey was undertaken by ENV (2011) to include an area proposed for a new biofarm facility (amendment application CPS 2816/3). One vegetation unit was mapped within this area:

ErAapAcoApTwTm Plains - Colluvial Plain Mixed Dense Woodland

Corymbia deserticola subsp. *deserticola, Eucalyptus leucophloia* subsp. *leucophloia, Eucalyptus lucasii, Eucalyptus trivalva, Acacia aneura* var. *aneura, Acacia citrinoviridis* and *Acacia pruinocarpa* mixed species low woodland over *Acacia sibirica, Acacia hamersleyensis, Acacia monticola, Acacia rhodophloia, Acacia sibirica* and *Petalostylis labicheoides* closed scrub over *Cymbopogon ambiguus* and *Themeda* sp. Mt Barricade (M.E.Trudgen 2471) tussock grassland over *Triodia melvillei, Triodia wiseana* hummock grassland.

An additional survey was undertaken by ENV (2013) to include an area proposed to extend the existing waste fines dump (amendment application CPS 2819/4). Three vegetation unit was mapped within this area:

AcAaAmPlAkAspTwTp – *Acacia citrinoviridis* and *A. aneura* var. *aneura* low open woodland over *A. maitlandii, Petalostylis labicheoides* and *A. kempeana* open heath over *A. spondylophylla* low shrubland over *Triodia wiseana* and *Triodia pungens* hummock grassland on hill slopes;

HcAarTb – *Hakea chordophylla* scattered tall shrubs over *Acacia arida* open shrubland over *Triodia brizoides* hummock grassland on red-brown silty clay on uppser slopes of high rocky hills; and

HD – Completely degraded/cleared areas including mining infrastructure and tracks.

Clearing Description

Hamersley Iron Pty Ltd (Hamersley Iron) is proposing to clear up to 114.9 hectares of native vegetation in an amended permit boundary of 198.4 hectares to extend the existing waste fines dump.

Vegetation clearing will be undertaken by mechanical means and the vegetation and topsoil will be stockpiled for use in rehabilitation (Hamersley Iron, 2013).

Vegetation Condition

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

To:

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

Comment

The application area is located in the Pilbara region of Western Australia and is situated approximately 10 kilometres south of Tom Price (GIS Database).

Clearing permit CPS 2816/3 was granted by the Department of Mines and Petroleum on 26 April 2012. On 18 June 2013, Hamersley Iron Pty Ltd applied to amend CPS 2816/3 for the purpose increasing the application area from 109.1 hectares to 114.9 hectares and increasing the permit boundary from 192.6 to 198.4 hectares.

3. Assessment of application against Clearing Principles

Comments

Hamersley Iron Pty Ltd has applied to increase the area permitted to clear from 109.1 hectares to 114.9 hectares and the permit boundary from 192.6 hectares to 198.4 hectares.

A biological survey of the amendment area conducted by Hamersley Iron (2013) identified two vegetation communities occurring within the extended permit boundary. None of these vegetation communities are considered to be of higher diversity than those assessed within clearing permit decision report CPS 2816/3 and the vegetation types are not considered to be a remnant locally or regionally. No vegetation communities recorded are considered to be Threatened or Priority Ecological Communities (GIS Database).

A targeted Rare Flora survey identified two populations of *Lepidium catapycnon* (Threatened Flora) comprising a total of 70 individuals within the amended area. A population boundary has been mapped for this population with an estimate of 100 individuals occurring in the area (Hamersley Iron, 2013). The species *Lepidium catapycnon* is a Pilbara Endemic known from 16 locations on Flora Base (Western Australian Herbarium, 2013), however Rio Tinto's internal GIS database show that this species has been recorded 321 times with an estimated 18,664 individuals from these locations (Hamersley Iron, 2013). Hamersley Iron have applied for a 'Permit to Take Declared Rare Flora' from the Department of Parks and Wildlife as the species cannot be avoided. Advice from DPaW (2013) is that the taking of 70 to 100 individuals of *Lepidium catapycnon* represents approximately 1.3 percent of the local population and approximately 0.28 percent of the total population of the species. The taking of this subpopulation during the proposed clearing within the application area would not be considered significant as the subpopulation is part of a larger population immediately adjacent to the application area which extends for approximately 1.8 kilometers north-east (DPaW, 2013).

Two locations of *Indigofera ixocarpa* (Priority 2) were recorded within the amendment area with over 25 individuals in one location and 10 in the other location. Although Flora Base (Western Australian Herbarium, 2013) only cite six recorded locations in the local area, the Rio Tinto internal GIS database has over 2,500 individuals recorded within 5 kilometres of the application area (Hamersley Iron, 2013). The clearing of 35 individuals is unlikely to significantly impact the conservation significance of this species.

Therefore, the proposed clearing is at variance to Principle (c), not likely to be at variance to Principles (a) and (d) and is not at variance to Principle (e).

The fauna habitats present within the application area are consistent with those described in clearing permit decision report CPS 2816/1. Therefore, the proposed clearing is not likely to be at variance to Principle (b). Current environmental information has been reviewed and the assessment of clearing principles (f), (g), (h), (i) and (j) is consistent with the assessment in clearing permit decision report CPS 2816/1.

Methodology

DPaW (2013)
Hamersley Iron (2013)
Western Australian Herbarium (2013)
GIS Database:
- DEC Tenure
- Evaporation Isopleths
- Groundwater Salinity
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Rangeland Land System Mapping
- Rainfall, Mean Annual
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There are two Native Title Claims (WC97/043 and WC05/003) over the area under application. These claims have 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 (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal sites of significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation (formerly the Department of Environment and Conservation) and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The amendment application was advertised on 24 June 2013 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the application.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title claims - Determined by the Federal Court

4. References

Department of Parks and Wildlife (DPaW) (2013) Species and Communities Branch, Advice regarding the Threatened Flora *Lepidium catapycnon*, Perth, WA.

Hamersley Iron Pty Ltd (Hamersley Iron) (2013) Statement Addressing the 10 Clearing Principles – Tails Dump Extension at Tom Price. Unpublished Report, May 2013. Rio Tinto, Western Australia.

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 (2013) FloraBase - the Western Australian Flora. Department of Environment and Conservation, viewed 9 August 2013, <http://florabase.dec.wa.gov.au>.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
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
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

P1 **Priority One - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

P2 **Priority Two - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

P3 **Priority Three - Poorly Known taxa**: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.

P4 **Priority Four – Rare taxa**: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.

R **Declared Rare Flora – Extant taxa** *(= Threatened Flora = Endangered + Vulnerable)*: taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

X **Declared Rare Flora - Presumed Extinct taxa**: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

Schedule 1 **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.

Schedule 2 **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.

Schedule 3 **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.

Schedule 4 **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

P1 **Priority One: Taxa with few, poorly known populations on threatened lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P2 **Priority Two: Taxa with few, poorly known populations on conservation lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P3 **Priority Three: Taxa with several, poorly known populations, some on conservation lands**: Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P4 **Priority Four: Taxa in need of monitoring**: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

P5 **Priority Five: Taxa in need of monitoring**: Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999)*

EX **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.

EX(W) **Extinct in the wild:** A native species which:

(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or

(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.

CR **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.

EN **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.

VU **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

CD **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

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.