



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 4094/2  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: BHP Billiton Iron Ore Pty Ltd

### 1.3. Property details

Property: Iron Ore (Mount Newman) Agreement Act 1964, Mineral Lease 244SA (AML70/244)  
Local Government Area: Shire of East Pilbara  
Colloquial name: Eastern Packsaddles

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
150		Mechanical Removal	Mineral exploration drilling, hydrological investigations and supporting infrastructure

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 22 August 2012

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

**18:** Low woodland; mulga (*Acacia aneura*); and  
**82:** Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana* (GIS Database).

The application area was surveyed by Onshore (2010) in November 2009, February 2010 and June 2010. Based on these surveys the following 21 vegetation associations were recorded within the application area:

2a: Low Open Forest of *Eucalyptus xerothermica*, *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over Tussock Grassland of *Themeda triandra* and *Cymbopogon ambiguus* with Shrubland of *Petalostylis labicheoides*, *Acacia monticola* and *Santalum lanceolatum*;

3a: Low Open Forest of *Acacia aptaneura* over Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Aristida inaequiglumis*;

3b: Low Open Forest of *Acacia catenulata* subsp. *occidentalis*, *Acacia aptaneura* and *Grevillea* aff. *nematophylla* over Open Shrubland of *Scaevola acacioides* and *Acacia tetragonophylla* over Very Open Tussock Grassland of *Eriachne mucronata*;

4a: Low Woodland of *Corymbia ferritcola*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Open Tussock Grassland of *Themeda triandra*, *Cymbopogon ambiguus* and *Eriachne mucronata* and Open Hummock Grassland of *Triodia pungens*;

5a: Low Shrubland of *Acacia spondylophylla* over Open Hummock grassland of *Triodia* sp. Shovelanna (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana*;

6a: Open to Closed Scrub of *Acacia tumida* var. *pilbarensis*, *Petalostylis labicheoides* and *Acacia monticola* over Hummock Grassland of *Triodia pungens* (or Tussock Grassland of *Themeda triandra*) with Low Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia*;

6b: Open Scrub of *Acacia bivenosa*, *Petalostylis labicheoides* and *Rulingia luteiflora* over Hummock Grassland of *Triodia angusta* and *Triodia wiseana* with Scattered Low Trees of *Eucalyptus xerothermica*;

6c: Open Scrub of *Petalostylis labicheoides*, *Acacia monticola* and *Grevillea wickhamii* subsp. *hispidula* over Hummock Grassland of *Triodia wiseana* with Low Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia*;

7a: Tussock Grassland of *Themeda triandra*, *Eriachne tenuiculmis* and *Eulalia aurea* with Open Woodland of

*Eucalyptus victrix* over Shrubland of *Gossypium robinsonii*, *Acacia tumida* var. *pilbarensis* and *Acacia pyrifolia* var. *pyrifolia*;

7b: Tussock Grassland of *Themeda triandra*, *Eriachne mucronata* and *Eriachne tenuiculmis* with Low Woodland of *Corymbia ferriticola*, *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over High Shrubland of *Petalostylis labicheoides*, *Grevillea wickhamii* subsp. *hispidula* and *Acacia tumida* var. *pilbarensis*;

8a: Hummock Grassland of *Triodia pungens* with Very Open Mallee of *Eucalyptus gamophylla* over Open Shrubland of *Acacia bivenosa*, *Acacia pachyacra* and *Acacia pruinocarpa*;

8b: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Corymbia deserticola* subsp. *deserticola* and *Eucalyptus leucophloia* subsp. *leucophloia*;

8c: Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*;

8d: Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* and open Mallee of *Eucalyptus kingsmillii* and *Eucalyptus gamophylla*;

8e: Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Shrubland of *Acacia hilliana*, *Acacia adoxa* var. *adoxo* and *Gompholobium karijini*;

8f: Hummock Grassland of *Triodia wiseana* and *Triodia brizoides* with Open Shrubland of *Acacia bivenosa* and *Acacia inaequilatera* and Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* and *Eucalyptus gamophylla* (Mallee);

8g: Hummock Grassland of *Triodia wiseana* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia bivenosa*, *Acacia aneura* var. *aneura* and *Acacia ancistrocarpa*;

8h: Hummock Grassland of *Triodia wiseana*, *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia angusta* with Shrubland of *Acacia bivenosa* and *Acacia ancistrocarpa* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Eucalyptus xerothermica* and *Eucalyptus gamophylla* (Mallee);

8i: Hummock Grassland of *Triodia wiseana* with High Open Shrubland of *Acacia bivenosa* and *Acacia pyrifolia* var. *pyrifolia* and Scattered Low Mallee of *Eucalyptus socialis* subsp. *eucentrica*;

9a: Open Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*; and

9b: Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana*, *Acacia adoxa* var. *adoxo* and *Indigofera monophylla* (Onshore, 2010).

The extended application area applied for in CPS 4094/2 has been the subject of 16 biological flora surveys. Onshore (2011) and Onshore (2012) have summarised the flora surveys and identified the following vegetation associations within the extended application area (BHP, 2013):

1a: *Eucalyptus* Woodland to Forest – Woodland to Forest of *Eucalyptus camaldulensis* var. *obtusata*, *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* in brown silty sand and clay soils along Weeli Wolli Creek;

3c: *Acacia* Low Open Forest – Low Open Forest of *Acacia catenulate* subsp. *occidentalis*, *Acacia aneura* var. *tenuis* and *Grevillea* aff. *Berryana* over Open Shrubland of *Scaevola acacioides* and *Acacia tetragonophylla* over Very Open Tussock Grasslands of *Eriachne mucronata* in light brown loam soils on steep breakaway scree slopes;

4b: *Eucalyptus/Corymbia* Low Woodland – Low Woodland of *Eucalyptus xerothermica* and *Corymbia hamersleyana* over Shrubland of *Acacia pyrifolia* var. *pyrifolia*, *Petalostylis labicheoides* and *Gossypium robinsonii* over Open Hummock Grassland of *Triodia pungens* in red brown loam soils along medium drainage lines;

7c: *Acacia* Open Scrub – Open Scrub of *Petalostylis labicheoides*, *Acacia monticola* and *Grevillea wickhamii* subsp. *hispidula* over Hummock Grassland of *Triodia wiseana* with Low Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* in red brown loam soils on minor drainage lines;

9c: *Themeda* Tussock Grassland – Tussock Grassland of *Themeda triandra*, *Eriachne mucronata* and *Eriachne tenuiculmis* with Low Woodland of *Corymbia ferriticola*, *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over High Scrubland of *Petalostylis labicheoides*, *Grevillea wickhamii* subsp. *hispidula* and *Acacia tumida* var. *pilbarensis* in red brown loam soils in dissected medium drainage lines with steep or vertical cliff faces;

10c: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia pungens* with Very Open Mallee of *Eucalyptus gamophylla* over Open Shrubland of *Acacia bivenosa*, *Acacia pachyacra* and *Acacia pruinocarpa* in red brown loam soils on lower valley slopes;

10d: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Corymbia deserticola* subsp. *deserticola* and *Eucalyptus leucophloia* subsp. *leucophloia* in red brown loam soils on plains, low rises. Foot slopes and spur hill slopes;

10e: Hummock Grassland of *Triodia wiseana*, *Triodia brizoides* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* in brown clay loam on steep hill slopes and U-shaped gullies;

10f: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* and Open Mallee of *Eucalyptus kingsmillii* subsp. *kingsmillii* and *Eucalyptus gamophylla* in red brown loam soils on hill crests;

10g: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Shrubland of *Acacia hilliana*, *Acacia adoxa* var. *adoxo* and *Gompholobium* sp. Pilbara (N.F. Norris 908) in red brown loam soils on hill crests and hill slopes;

10j: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* and *Triodia brizoides* with Open Shrubland of *Acacia bivenosa* and *Acacia inaequilatera* and Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* and *Eucalyptus gamophylla* (Mallee) in skeletal red brown loam soils on rocky hill slopes;

10k: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia bivenosa*, *Acacia aneura* var. *aneura* and *Acacia ancistrocarpa* in red brown silty loams on stony plains and low hills;

10l: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana*, *Triodia* sp. Shovelanna Hill and *Triodia angusta* with Shrubland of *Acacia bivenosa* and *Acacia ancistrocarpa* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Eucalyptus xerothermica* and *Eucalyptus gamophylla* (Mallee) in red brown loam soils on flood plains;

10m: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* with High Open Shrubland of *Acacia bivenosa* and *Acacia pyrifolia* var. *pyrifolia* and Scattered Low Mallee of *Eucalyptus socialis* subsp. *eucentrica* in light brown clay loam soils on calcrete plains and low rises;

11a: *Triodia* Open Hummock Grassland – Open Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* in skeletal orange brown loam soils on steep south-facing hill slopes;

11b: *Triodia* Open Hummock Grassland – Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3858) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana*, *Acacia adoxa* var. *adoxo* and *Indigofera monophylla* in skeletal orange brown loam soils on hill crests and upper hill slopes;

3: *Corymbia* Low Open Forest – Low Open Forest of *Corymbia ferritcola*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Open Shrubland of *Acacia hamersleyensis*, *Dodonaea viscosa* subsp. *mucronata* and *Eremophila tietkensis* over Open Hummock Grassland of *Triodia pungens* in red brown clay loam in gorges and deeply dissected rocky gullies;

4a: *Eucalyptus* Low Open Woodland – Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Open Shrubland of *Acacia tumida* var. *pilbarensis*, *Petalostylis labicheoides* and *Rulingia luteiflora* over Open Hummock Grassland of *Triodia pungens* and *Triodia wiseana* in red brown silty loam along minor drainage lines;

4b: *Eucalyptus* Low Open Woodland – Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Corchorus lasiocarpus* subsp. *parvus*, *Dampiera candidans* and *Gompholobium* sp. Pilbara (N.F. Norris 908) over Open Hummock Grassland of *Triodia* sp. Shovelanna Hill and *Triodia pungens* in red brown loam on hill slopes;

6c: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* over Very Open Mallee of *Eucalyptus socialis* subsp. *eucentrica* over Open Shrubland of *Acacia bivenosa*, *Acacia arida* and *Petalostylis labicheoides* in light brown clay loam on calcrete low hills and plains;

6g: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia* sp. Shovelanna (S. van Leeuwen 3835) and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana*, *Acacia adoxa* var. *adoxo* and *Gompholobium* sp. Pilbara (N.F. Norris 908) in red brown loam on hill slopes and hill crests; and

6h: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia* sp. Shovelanna Hill with Low Open Woodland of *Corymbia deserticola*, *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* and Low Open Shrubland of *Acacia arida*, *Corchorus lasiocarpus* subsp. *parvus* and *Indigofera monophylla* in red brown loam on footslopes; and

CD: Completely Degraded – Roads and Railways.

#### Clearing Description

BHP Billiton Iron Ore Pty Ltd is proposing to clear up to 150 hectares of native vegetation within a broader application area of 8,050 hectares for the purpose of exploration drilling, hydrological investigations and supporting infrastructure. The area will comprise of 295 potential drill targets, nine laydown areas, seven hydrological drill targets (water bores) and 52.45 kilometres of access tracks.

Vegetation will be cleared using a dozer.

**Vegetation Condition** Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994);  
To:  
Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).

**Comment** The application area is located in the Pilbara region of Western Australia and is situated approximately 74 kilometres north-west of Newman (GIS Database).  
Clearing permit CPS 4094/1 was granted by the Department of Mines and Petroleum on 20 January 2011. On 27 June 2013, BHP Billiton Iron Ore Pty Ltd (BHP) applied to amend CPS 4094/1 for the purpose increasing the area authorised to clear from 75 hectares to 150 hectares and increasing the permit boundary from 1,705 hectares to 8,050 hectares. BHP also applied to extend the permit duration from 2016 to 2026.

### 3. Assessment of application against Clearing Principles

#### Comments

BHP has applied to increase the area authorised to clear from 75 hectares to 150 hectares. The permit boundary increased from 1,705 hectares 8,050 hectares.

A review of the proposed increase of boundary identified additional impacts to the Priority Flora species listed in CPS 4094/1 and impacts to eight additional Priority Flora species;

- *Grevillea* sp. Turee (J. Bull & G. Hopkinson ONS JJ 01.01) (Priority 1);
- *Stylidium weeliwollii* (Priority 2);
- *Isotropis parviflora* (Priority 2);
- *Goodenia* sp. East Pilbara (A.A. Mitchell PRP 727) (Priority 3);
- *Rostellularia adscendens* var. *latifolia* (Priority 3);
- *Fimbristylis sieberiana* (Priority 3);
- *Rhagodia* sp. Hamersley (M. Rudgen 17794) (Priority 3); and
- *Sid asp.* Barlee Range (S. van Leeuwen 1642) (Priority 3) (BHP, 2013).

All of the above Priority Flora have distributions that extend well away from the application area (BHP, 2013), however potential impacts to Priority Flora as a result of the proposed clearing may be minimised by the implementation of a flora management condition as imposed on CPS 4094/1. BHP (2013) also recorded the Threatened Flora species *Lepidium catapycnon* within the new application area. The Threatened Flora species was identified in CPS 4094/1 and subjected to a Threatened Flora management condition which will be reflected in this assessment.

None of additional vegetation associations identified within the application area are considered to be of higher diversity than those assessed within clearing permit decision report CPS 4094/1 and the vegetation types are not considered to be a remnant locally or regionally (BHP, 2013; GIS Database). No vegetation communities recorded are considered to be Threatened or Priority Ecological Communities (BHP, 2013; GIS Database). Therefore, the proposed clearing is not likely to be at variance to Principles (a), (c) 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 4094/1. 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 (e), (f), (g), (h), (i) and (j) is consistent with the assessment in clearing permit decision report CPS 4094/1.

**Methodology** BHP (2013)  
DEC (2013)  
Onshore (2010)  
Onshore (2011)  
Onshore (2012)  
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 over the area under application. The claim WC2011/006 has been registered with the National Native Title Tribunal on 5 August 2011. The claim WC05/6 has been registered with the National Native Title Tribunal on 11 August 2010. 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 15 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 was advertised on 15 July 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 - Registered with the NNTT

## 4. References

- BHP Billiton Iron Ore (BHP) (2013) Eastern Packsaddle Exploration Drilling Program, Supporting Documentation for Vegetation Clearing Permit Application. Internal Report, June 2013.
- DEC (2013) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 29 July 2013, <<http://naturemap.dec.wa.gov.au>>.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Onshore Environmental (Onshore) (2010) Level 2 Flora and Vegetation Survey, Packsaddles East Survey Area. Unpublished report prepared for BHP Billiton Iron Ore. Onshore Environmental Consultants Pty Ltd, Western Australia.
- Onshore Environmental (Onshore) (2011) Flora and vegetation Survey Area C and Surrounds. Unpublished report prepared for BHP Billiton Iron Ore. Onshore Environmental Consultants Pty Ltd, Western Australia.
- Onshore Environmental (Onshore) (2012) Flora and Vegetation Review Jinidi Iron Ore Project. Unpublished report prepared for BHP Billiton Iron Ore. Onshore Environmental Consultants Pty Ltd, Western Australia.

## 5. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>CALM</b>	Department of Conservation and Land Management (now DEC), Western Australia
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia
<b>DEH</b>	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
<b>DEP</b>	Department of Environment Protection (now DEC), Western Australia
<b>DIA</b>	Department of Indigenous Affairs
<b>DLI</b>	Department of Land Information, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia
<b>DoE</b>	Department of Environment (now DEC), Western Australia
<b>DoIR</b>	Department of Industry and Resources (now DMP), Western Australia
<b>DOLA</b>	Department of Land Administration, Western Australia
<b>DoW</b>	Department of Water
<b>EP Act</b>	Environmental Protection Act 1986, Western Australia
<b>EPBC Act</b>	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>RIWI Act</b>	Rights in Water and Irrigation Act 1914, Western Australia
<b>s.17</b>	Section 17 of the Environment Protection Act 1986, Western Australia
<b>TEC</b>	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.