



1. Application details

1.1. Permit application details

Permit application No.: 4047/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Crescent Gold Limited

1.3. Property details

Property: M38/376
M38/377
Local Government Area: Shire of Laverton
Colloquial name: Pieces of Eight Deposit

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 3 February 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard vegetation associations have been mapped at a 1:250,000 scale for the whole of Western Australia. One Beard vegetation association has been mapped within the application area (GIS Database).</p> <p>18: Low woodland; mulga (<i>Acacia aneura</i>).</p> <p>Part of the application area was flora surveyed by Goldfields Landcare Services, on behalf of MBS Environmental, in 2009 and the vegetation of the whole application area was mapped by Crescent Gold in December 2010. The vegetation types were consistent with those identified and described by Western Botanical (2007). The following vegetation types were identified:</p> <p>Calciphytic Bluebush Shrublands: <i>Acacia aneura</i>, <i>Hakea preissii</i>, <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> scattered tall shrubs over <i>Maireana sedifolia</i>, <i>Maireana pydamidata</i> low chenopod shrubland over scattered grasses.</p> <p>Drainage Tract Mulga Shrublands: <i>Acacia aneura</i> low forest over a highly variable understorey of shrubs, grasses and herbs. The species composition comprises largely of species common to surrounding vegetation units.</p> <p>Stony Ironstone Mulga Shrublands: <i>Acacia aneura</i>, <i>Acacia ramulosa</i> var. <i>ramulosa</i>, <i>Acacia</i> aff. <i>quadrifolia</i> scrub over <i>Eremophila forrestii</i> subsp. <i>forrestii</i>, <i>Scaevola spinescens</i>, <i>Senna artemisioides</i> subsp. <i>helmsii</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> low scrub.</p>	<p>Crescent Gold Limited has applied to clear up to 15 hectares of native vegetation, within an application area totalling approximately 88 hectares, for the purpose of mineral production. Clearing is to develop the Pieces of Eight Deposit, including an open pit mine, waste rock landform, access roads and an ore stockpile area.</p> <p>The application area is located in the vicinity of several existing Crescent Gold minesites, including Admiral Hill and Castaway, approximately 10 kilometres north-east of Laverton.</p> <p>Vegetation will be cleared using bulldozers or other heavy plant equipment. Vegetation and topsoil will be stockpiled for use in subsequent site rehabilitation.</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994);</p> <p>To</p> <p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).</p>	<p>The vegetation condition has been derived from a vegetation survey by Goldfields Landcare Services (MBS Environmental, 2009).</p>

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The application area occurs within the East Murchison subregion of the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). The vegetation is dominated by Mulga woodlands often rich in ephemerals, hummock grasslands, saltbush shrublands and Halosarcia shrublands (CALM, 2002).

The vegetation within the application area is broadly mapped as Beard vegetation association 18, which is common and widespread throughout the Murchison region, with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2009; GIS Database). A flora and vegetation survey of part of the application area was conducted in January 2009 (MBS Environmental, 2009) and the vegetation was mapped for the whole application area in December 2010 (Crescent Gold, 2010a). The vegetation types identified within the application area are typical of the Laverton area.

No Declared Rare Flora, Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) have been recorded in the application area (MBS Environmental, 2009; GIS Database). Two Priority species, *Phyllanthus baeckeoides* (Priority 3) and *Baeckea* sp. Melita Station (Priority 4), were recorded on a neighbouring Crescent Gold tenement but not in the application area (MBS Environmental, 2009; Crescent Gold, 2010a).

The expected fauna of the Laverton area are predominantly widespread Eremaean species commonly found in Mulga habitat, with reptiles being the most diverse vertebrate fauna group (MBS Environmental, 2004). A search using NatureMap found 57 reptile species recorded within a 40 kilometre radius of the application area (DEC, 2010). The dominant fauna habitat within the application area is Mulga shrublands and this is widely represented in the Laverton region (Coffey Environments, 2008).

The application area has been subject to historical mining and pastoral activity and recent exploration activity. Approximately 20-25% of the application area has been mapped as "disturbed". Crescent Gold have stated their activities will occur on existing disturbed areas as much as possible and this is reflected in their proposed mine layout (Crescent Gold, 2010a).

The application area is not likely to comprise of a high level of biological diversity, considering the condition of the vegetation within the application area, and the availability of higher quality areas of vegetation throughout the local and regional area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

CALM (2002)
Coffey Environments (2008)
Crescent Gold (2010a)
DEC (2010)
MBS Environmental (2004)
MBS Environmental (2009)
Shepherd (2009)
GIS Database:
- Declared Rare and Priority Flora List
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Threatened Ecological Sites Buffered

(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.

Comments

Proposal is not likely to be at variance to this Principle

No targeted fauna surveys have been undertaken within the application area. A desktop search was conducted by Coffey Environments (2008) as part of the adjoining Castaway Deposit and a reconnaissance survey of the application area was conducted by Crescent Gold (2010a).

A search of the adjoining Castaway project area identified Mulga woodland on rocky-clay substrate as the dominant vegetation and fauna habitat type (Coffey Environments, 2008). The same Mulga shrublands mapped in the Castaway project area were also mapped in the Pieces of Gold application area (MBS Environmental, 2009; Crescent Gold, 2010a). This fauna habitat type is widely represented in the Laverton region (Coffey Environments, 2008).

A reconnaissance survey of the application area by Crescent Gold recorded no significant fauna habitat features such as caves, waterholes or large tree hollows (Crescent Gold, 2010a).

Large sections of the application area are significantly degraded as a result of previous mining exploration, pastoral activities and current mine access roads (Crescent Gold, 2010b; GIS Database). This reduces the quality of fauna habitat and its potential to be significant habitat for native fauna.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Coffey Environments (2008)
Crescent Gold (2010a)
Crescent Gold (2010b)
MBS Environmental (2009)
GIS Database:
- Laverton 50 cm Orthomosaic - Landgate 2006

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments **Proposal is not likely to be at variance to this Principle**
According to available databases there are no Declared Rare Flora (DRF) species within the application area (GIS Database). The nearest known DRF population is located approximately 190 kilometres south-east of the application area (GIS Database). A flora and vegetation survey was undertaken in January 2009 for the Laverton Gold Project, including part of the application area (MBS Environmental, 2009). The flora survey area covered approximately 1,247 hectares and no DRF were identified (MBS Environmental, 2009).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology MBS Environmental (2009)
GIS Database:
- Declared Rare and Priority Flora List

(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.

Comments **Proposal is not likely to be at variance to this Principle**
There are no records of any Threatened Ecological Communities (TECs) within the application area (GIS database). The nearest known TEC is located approximately 230 kilometres north-east of the application area (GIS database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- Threatened Ecological Sites Buffered

(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.

Comments **Proposal is not at variance to this Principle**
The clearing application area falls within the Murchison Interim Biogeographic Regionalisation for Australia (IBRA) bioregion in which approximately 100% of the pre-European vegetation remains (see table) (Shepherd, 2009; GIS Database). This gives it a conservation status of "Least Concern" according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002).

The vegetation of the clearing application area has been mapped as Beard vegetation association 18 "Low woodland; mulga (*Acacia aneura*)" (GIS Database). According to Shepherd (2009) approximately 100% of Beard vegetation association 18 remains at both the state and bioregional level (see table). This vegetation association would be given a conservation status of "Least Concern" at both a state and bioregional level (Department of Natural Resources and Environment, 2002).

The vegetation under application is not a remnant of vegetation in an area that has been extensively cleared.

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Murchison	28,120,587	28,120,587	~100	Least Concern	1.06
Beard Veg Assoc. – State					
18	19,892,305	19,890,275	~100	Least Concern	2.1
Beard Veg Assoc. – Bioregion					
18	12,403,172	12,403,172	~100	Least Concern	0.4

* Shepherd (2009)

** Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Shepherd (2009)
GIS Database:
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is at variance to this Principle

There are no permanent watercourses or wetlands within the application area (GIS Database) There are several minor non-perennial watercourses that partly run through the application area (GIS Database) and these are mostly associated with the riparian vegetation type "Drainage Tract Mulga Shrublands" (Crescent Gold, 2010a). This vegetation type is common in the Laverton area.

Based on the above, the proposed clearing is at variance to this Principle. However, Crescent Gold have committed to not disturbing ephemeral creeklines and their proposed mine layout reflects this (Crescent Gold, 2010b). They have also developed a Surface Water Management Plan as part of the Pieces of Eight Mine (Crescent Gold, 2010b). This includes construction of diversion bunds where necessary and directing runoff from potentially contaminated areas to prevent flow into nearby creek systems (Crescent Gold, 2010b).

Methodology Crescent Gold (2010a)
Crescent Gold (2010b)
GIS Database:
- Hydrography, Linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal may be at variance to this Principle

According to the available datasets the application area intersects the Bevon, Gundockerta and Leonora Land Systems (GIS Database).

Most of the application area is mapped as the Bevon Land System (GIS Database). The Bevon Land System is characterised by irregular low ironstone hills with stony lower slopes supporting mulga shrublands (Pringle et al., 1994). Minor areas on breakaway footslopes and narrow drainage tracts are susceptible to soil erosion (Pringle et al., 1994) but only a small portion of the application area has been mapped as drainage tract (Crescent Gold, 2010a).

The north-east corner of the application area is mapped as the Gundockerta Land System (GIS Database). The Gundockerta Land System is described as extensive, gently undulating, calcareous, stony plains, supporting bluebush shrublands (Pringle et al., 1994). The extensive, gently undulating plains are generally covered with abundant stony mantles, while the less extensive, lower alluvial plains with narrow central zones receive more concentrated run-on (Pringle et al., 1994). Where the land is not protected by a stony mantle, saline plains and adjacent alluvial tracts are susceptible to water erosion, particularly where perennial shrub cover is substantially reduced or the soil surface is disturbed (Pringle et al., 1994).

The south-east corner of the application area is mapped as the Leonora Land System (GIS Database). The Leonora Land System is described as low greenstone hills and stony plains, supporting mixed stony chenopod shrublands (Pringle et al., 1994). Stony lower footslopes rely on mantles for soil protection against erosion. Drainage tracts are highly susceptible to water erosion, particularly in areas where perennial shrub cover has

been substantially reduced or the soil surface is disturbed (Pringle et al, 1994).

To minimise losses of topsoil and soil profiles from erosion, Crescent Gold have committed that clearing and topsoil stripping will not be done during periods of rain or high wind (Crescent Gold, 2010b).

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology Crescent Gold (2010a)
Crescent Gold (2010b)
Pringle et al. (1994)
GIS Database:
- Rangeland Land System Mapping

(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.

Comments **Proposal is not likely to be at variance to this Principle**
The proposed clearing is not located within a conservation reserve (GIS Database). The nearest conservation area is De La Poer Range Nature Reserve, which is located 116 kilometres north of the application area (GIS Database). A large proportion of the vegetation in the Murchison bioregion remains uncleared, approximately 100% (Shepherd, 2009), so it is unlikely that the application area provides an important buffer or ecological linkage to De La Poer Range Nature Reserve.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Shepherd (2009)
GIS Database
- DEC Tenure

(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.

Comments **Proposal is not likely to be at variance to this Principle**
The application area is located within the Laverton Water Reserve, a Priority 1 Public Drinking Water Source Area (PDWSA) (GIS Database). A P1 priority classification area has the fundamental water quality objective of risk avoidance to ensure there is no degradation of drinking water quality (DoW, 2007). According to Water Quality Protection Note 'Land Use Compatibility in Public Drinking Water Source Areas', mining and extractive industries are considered compatible land uses with conditions in P1 areas (DoE, 2004).

Crescent Gold have developed strategies and procedures to manage water quality in a PDWSA, including a Surface Water Management Plan. Some of the commitments Crescent Gold have made include:

- No disturbance of ephemeral creek lines;
- Diversion bunds will be constructed, where necessary, to ensure clean surface runoff is directed away from pits, waste landforms and mine infrastructure;
- Runoff from potentially contaminated areas will be directed to specific collection pits where potential contaminants (sediments and hydrocarbons) will be removed, if required. Potentially contaminated water will not be allowed to flow into nearby creek systems;
- No mining being carried out within 500 metres of any bore or well (Crescent Gold, 2010b).

Considering the small size of the application area and the surface water management commitments, the proposed clearing is not likely to cause deterioration in the quality of surface water.

Groundwater monitoring bores surrounding the adjacent Admiral Hill and Castaway Mines have been monitoring groundwater levels and quality since mining operations commenced at Admiral Hill in August 2009. To date monitoring has shown no significant fluctuations in levels or water quality parameters (arsenic, copper, total dissolved solids (TDS), EC and pH) (Crescent Gold, 2010b). Groundwater in the region is typically highly saline and water samples from the surrounding Admiral Hill have a calculated TDS value in excess of 12,000 milligrams per litre (Crescent Gold, 2010b). Given the small size of the area to be cleared and the already saline nature of the groundwater, the proposed clearing is not likely to cause salinity levels within the application area to alter significantly.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Crescent Gold (2010b)
DoE (2004)
DoW (2007)
GIS Database:
- Public Drinking Water Source Areas (PDWSAs)

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not likely to be at variance to this Principle

The application area is located within an arid environment where rainfall is unreliable but with higher rainfall occurring in the summer months (Crescent Gold, 2010b). The average annual rainfall for Laverton (aero) is 276.7 mm (Bureau of Meteorology, 2010b). Laverton has a high average annual pan evaporation in the range of 2800 - 3200 mm (Bureau of Meteorology, 2010a) There are no permanent surface water sources in the application area and the minor perennial drainage lines only flow intermittently (Crescent Gold, 2010b).

The application area is located within the Lake Carey catchment area (GIS Database). Given the size of the area to be cleared (15 hectares) in relation to the size of the catchment area (11,378,213 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a local or catchment scale.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Bureau of Meteorology (2010a)
Bureau of Meteorology (2010b)
Crescent Gold (2010b)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

The clearing permit application was advertised on 8 November 2010 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received in relation to this application regarding Aboriginal heritage issues. A written response was provided on the matters raised.

There are no Native Title Claims over the area under application (GIS Database). 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 two Aboriginal Sites of Significance recorded as occurring partly within the clearing permit application areas (Site IDs: 16082 and 21891) (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.

The Pieces of Eight proposal was referred to the Office of the Environmental Protection Authority (OEPA) by the proponent, Crescent Gold Limited. The referral was received by the OEPA on 3 November 2010. On 12 January 2011 the OEPA made a determination of 'Not Assessed – No Advice Given'.

It is the proponent's responsibility to liaise with 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.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title NNTT

4. References

- Bureau of Meteorology (2010a) BOM Website - Average annual, monthly and seasonal evaporation.
http://www.bom.gov.au/jsp/ncc/climate_averages/evaporation/index.jsp#glance (Accessed 16 December 2010).
- Bureau of Meteorology (2010b) BOM Website - Climate Statistics for Australian Locations - Summary Statistics Laverton Aero.
http://www.bom.gov.au/climate/averages/tables/cw_012305.shtml (Accessed 17 November 2010).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management, Western Australia.
- Coffey Environments (2008) Level 1 Fauna Assessment Castaway Deposit Laverton Gold Project. Report Prepared for Crescent Gold Limited, June 2008.
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- DEC (2010) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation.
<http://naturemap.dec.wa.gov.au> (Accessed 21 December 2010).

- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
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- DoW (2007) Laverton Water Reserve and Catchment Area Drinking Water Source Protection Plan - Laverton Town Water Supply, Water Resource Protection Series, Report No. WRP 74. Department of Water, 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.
- MBS Environmental (2004) Vegetation and Habitat Assessment of the Euro, Sickie and Admiral Hill Project Areas, Laverton. Report Prepared for Crescent Gold Limited, October 2004.
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- Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Western Botanical (2007) Flora and Vegetation of the Craiggimore Project Area and Associated Haul Road Alignment. Unpublished report for Crescent Gold Limited, July 2007.

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.