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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4444/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Crescent Gold Limited**

1.3. Property details

Property: Mining Lease 38/40
Mining Lease 38/48
Mining Lease 38/49
Local Government Area: Shire of Laverton
Colloquial name: Calypso Gold Mine Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 11 August 2011

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. One Beard vegetation association has been mapped within the application area:

Beard vegetation association 18: Low woodland; mulga (*Acacia aneura*) (Shepherd, 2009; GIS Database).

Botanica Consulting (2011a) conducted a flora survey of the application area and surrounding areas on 29 to 30 April 2011, and described four vegetation communities of the application area:

1. ***Acacia aneura* in creekline/drainage**
   Dominated by *Acacia* shrubland. The upper storey comprised of *Acacia aneura, A. craspedocarpa, Hakea kippistiana, Acacia ramulosa*, and *A. quadrimarginea*. The mid storey species included *Eremophila forrestii*, *Eremophila latrobei, A. tetragonophylla, Eremophila serrulata, Senna artemisioides*, subsp *artemisioides* and *Mirbelia microphylla*. The under storey species included *Rhagodia eremaeum, Ptilotus gaudichaudii* var. *gaudichaudii, Dysphania kalpari, Calandrinia polyandra, Dianella revolute* and *Eremophila gilesii* subsp. *variabilis*. A section of this vegetation community has been disturbed by a tailings spill, with this area rated as 'degraded';

2. ***Eremophila abienta* rocky outcrop**
   Dominated by *Eremophila* shrubland. The upper storey comprised of *Acacia aneura* at low densities. The mid storey species included *Eremophila abietina* subsp. *abietina* and *Eremophila margarethae*. The under storey species included *Solanum lasiophyllum, Ptilotus schwartzii, Aristida contorta, Ptilotus obovatus, Eriachne obovatus* and *Triodia helmsii*;

3. ***Acacia aneura* woodland**
   Dominated by *Acacia* woodland. The upper storey comprised of *Acacia aneura* and *A. ramulosa*. The mid storey species comprised of *A. tetragonophylla, Eremophila margarethae* and *Maireana convexa*. The under storey species included *Sclerolaena eriacantha, Maireana carnosa, Ptilotus exaltatus, Solanum lasiophyllum* and *Ptilotus schwartzii*; and

4. **Sub-group *Acacia aneura* over *Eriachne ovate***
   Dominated by *Acacia* shrubland. The upper storey comprised of *Acacia aneura* and *Acacia ramulosa*. The mid storey species included *Eremophila margarethae, Eremophila forrestii, Maireana convexa, Eremophila latrobei* subsp. *latrobei, Acacia tetragonophylla* and *Santalum lanceolatum.* The understorey species included *Ptilotus schwartzii, Eriachne ovata, Aristida contorta, Dysphania kalpari, Calandrinia polyandra, Solanum lasiophyllum, Maireana carnosa, Tribulus astrocarpus, Sclerolaena patenticuspis, Ptilotus exaltatus* and *Zygophyllum eremaeum*.

Clearing Description

Crescent Gold Limited is proposing to clear up to 80 hectares of native vegetation within a 248 hectare application area, for the Calypso Gold Mine Project. The clearing of vegetation is required for the development of open pits, and associated waste dumps, run of mine (ROM) pads, haul roads, a dewatering pipeline and other associated

infrastructure for mineral production.

The vegetation will be cleared using a bulldozer or other heavy plant equipment. The vegetation and topsoil will be stockpiled and used in rehabilitation.

Vegetation Condition

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

To:

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

Comment

The application area is located in the East Murchison subregion of Western Australia and is situated approximately seven kilometres east of Laverton.

The vegetation condition was derived from a vegetation survey conducted by Botanica Consulting (2011a).

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 (MUR1) subregion of the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by internal drainage, and extensive areas of elevated red desert sandplains with minimal dune development. Salt lake systems are associated with the occluded Paleodrainage system. 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 consists of Beard vegetation association 18, which is common and widespread throughout the Murchison bioregion with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2009; GIS Database).

A vegetation survey by Botanica Consulting (2011a) undertaken between 29 to 30 April 2011 of the application area and surrounding vegetation identified 137 species of flora taxa belonging to 66 Genera and 34 Families. Botanica Consulting (2011a) identified four vegetation communities within the application area. The condition of the vegetation types were classified as 'degraded' to 'very good' (Keighery, 1994; GIS Database).

A search of the Department of Environment and Conservation Declared Rare and Priority Flora databases revealed no Priority Flora species which may potentially occur within a 20 kilometre radius of the application area (DEC, 2011). No Declared Rare Flora (DRF) species were identified (DEC, 2011). Botanica Consulting (2011a) identified no DRF and no Priority Flora species within the application area.

No Threatened Ecological Communities or Priority Ecological Communities were recorded or identified within the application area (GIS Database).

Three weed species were identified during the survey: Ruby Dock (*Acetosa vesicaris*), Pimpernel (*Lysimachia arvensis*) and Mediterranean turnip (*Brassica tournefortii*) (Botanica Consulting, 2011a). None of these species are listed by the Western Australian Department of Agriculture and Food as Declared Plants. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The fauna habitats within the application area are considered to be common and widespread within the subregion and faunal assemblages are unlikely to be different to that found in similar habitat located elsewhere in the region (Botanica Consulting, 2011b). The habitat types are not of high ecological significance and the clearing of 80 hectares of native vegetation is unlikely to have a significant impact in a regional context.

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

Methodology

Botanica Consulting (2011a)
Botanica Consulting (2011b)
CALM (2002)
DEC (2011)
Keighery (1994)
Shepherd (2009)
GIS Database:
- IBRA WA (regions - subregions)
- 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

A level one fauna survey has been conducted over the application area. A vegetation survey conducted by Botanica Consulting (2011a) identified four broad fauna habitat types;

1. *Acacia aneura* shrubland over grassland;
2. *Acacia aneura* shrubland over *Eriachne ovata*;
3. *Acacia* shrubland in creekline/drainage area; and
4. *Acacia aneura* woodland.

The vegetation within the application area consists of Beard vegetation association 18, which is common and widespread throughout the Murchison bioregion with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2009; GIS Database). The native vegetation to be cleared is in 'degraded' to 'very good' condition (Keighery, 1994). The application area contains creekline habitat that has been disturbed by a tailings spill and is classified as a 'degraded' condition (Botanica Consulting, 2011a). This habitat and other faunal assemblages within the application area are not ecologically significant and it is unlikely that any species of conservation significance will be significantly impacted by the clearing of native vegetation in the application area.

There are three conservation significant fauna species listed as either Threatened Species under the *Environment Protection and Biodiversity Conservation Act 1999* or protected under Western Australian legislation (*Wildlife Conservation Act, 1950*), that may potentially occur within a 30 kilometre radius of the application area (DEC, 2011). These three species; the Peregrine Falcon (*Falco peregrinus*), Australian Bustard (*Ardeotis australis*) and Long-tailed Dunnart (*Sminthopsis longicaudata*) may use the application area for foraging as part of a larger territory area or as a seasonal visitor (Botanica Consulting, 2011b). The habitat present within the application area is not considered significant habitat for these species (Botanica Consulting 2011a; 2011b). Botanica Consulting (2011a; 2011b) conducted a level one fauna survey of the application area during December 2010 and recorded no species of conservation significance within the application area.

The proposed clearing of 80 hectares of native vegetation is not likely to impact critical feeding or breeding habitat for any conservation significant species. The conservation significant species listed above that could possibly utilise the application area based on habitats present are considered highly mobile and/or have a wide distribution and the proposed clearing is unlikely to significantly impact these species (Botanica Consulting 2011a; 2011b).

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

Methodology

Botanica Consulting (2011a)
Botanica Consulting (2011b)
DEC (2011)
Keighery (1994)
Shepherd (2009)
GIS Database:
- Laverton 50cm Orthomosaic - Landgate 2006
- Pre-European Vegetation

(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 records of Declared Rare Flora (DRF) within the application area (GIS Database). A search of the Department of Environment and Conservation's NatureMap database identified no DRF species as occurring within a 20 kilometre radius of the application area (DEC, 2011).

Botanica Consulting (2011a) conducted a vegetation and flora survey of the application area during 29 to 30 April 2011. No DRF were recorded within the survey area.

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

Methodology

Botanica Consulting (2011a)
DEC (2011)
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

A search of the available databases shows that there are no Threatened Ecological Communities (TEC's) situated within the application area (GIS Database). A flora survey conducted by Botanica Consulting (2011a) did not identify any TEC's. The nearest TEC buffer zone is located ten kilometres from the application area and identified as the 'Mount Jumbo Vegetation Complex' (GIS Database). The vegetation units mapped within the application area do not match the vegetation units which comprise the TEC (Botanica Consulting, 2011a).

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

Methodology

Botanica Consulting (2011a)
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 application area falls within the Murchison IBRA bioregion (GIS Database). The vegetation within the application area is recorded as Beard vegetation association 18: Low woodland; mulga (*Acacia aneura*) (GIS Database; Shepherd, 2009).

According to Shepherd (2009), Beard vegetation association 18 retains approximately 100**%** of its pre-European extent. Therefore, the area proposed to be cleared is not a significant remnant of native 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	28,120,586.84	28,120,586.48	~100	Least Concern	1.06
Beard vegetation associations - State					
18	19,892,304.84	19,890,275.39	~99.99	Least Concern	2.13
Beard vegetation associations - Bioregion					
18	12,403,172.36	12,403,172.36	~100	Least Concern	0.37

* 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 - subregions)
- 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 not likely to be at variance to this Principle

According to available databases there are two minor non-perennial drainage lines within the application area (GIS Database). The drainage lines only flow after major rainfall events. Based on vegetation mapping by Botanica Consulting (2011a), the *Acacia* shrubland is considered to be growing in association with the drainage lines. However, these drainage lines are disturbed by an existing tailings spill and the value of the vegetation associated with the drainage lines within application area is not likely to be environmentally significant (GIS Database; Botanica Consulting, 2011a).

The proposed clearing of 80 hectares of native vegetation is unlikely to result in any significant impact to any watercourse or wetland.

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

Methodology Botanica Consulting (2011a)
GIS Database:
- Geodata, Lakes
- 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 databases, the application area is primarily comprised of the Monk land system (GIS Database).

The Monk land system is described as hardpan plains with occasional sandy banks, supporting mulga shrublands and wanderrie grasses (Pringle et al, 1994). Drainage tracts land units within the system are mildly susceptible to water erosion (Pringle et al, 1994). Alteration of natural flow regimes may lead to water starvation of vegetation down gradient (Pringle et al, 1994).

Based on the above the proposed clearing may be at variance to this Principle. Potential land degradation impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

Methodology 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 application area is not located within any conservation areas (GIS Database). The nearest conservation area is De La Poer Range Nature Reserve, located approximately 125 kilometres north of the application area (GIS Database). Given the distance separating De La Poer Range Nature Reserve and the application area, the area proposed for clearing does not provide an important ecological linkage or fauna movement corridor and is not likely to impact the environmental values of the conservation area.

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

Methodology 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**
Mining Lease 38/49 occurs within the Laverton Water Reserve, a Public Drinking Water Source Area (PDWSA) gazetted under the *Country Areas Water Supply Act 1947* in 1970. This PDWSA is defined a 'Priority 1 (P1)' under the Water Source Protection Classification System. The application area is also located within the proclaimed Pilbara groundwater area under the *Rights in Water and Irrigation Act 1994* (GIS Database), however, advice received from the Department of Water (DoW) identifies that DoW is satisfied that the proposed clearing of 80 hectares is unlikely to have a significant impact on the quality or quantity of groundwater (Department of Water, 2011).

There two drainage lines within the application area which only flow during and following substantial rainfall (GIS Database; Botanica Consulting, 2011a). The application area receives an average annual rainfall of 234.3 millimetres/year, with an average annual pan evaporation rate of 2,800 - 3,200 millimetres/year (BoM, 2011), and there is little surface flow during normal rainfall seasons as the annual evaporation rate exceeds the annual rainfall (Botanica Consulting, 2011a). The proposed clearing is not likely to cause deterioration in the quality of surface or underground water.

The application area has brackish groundwater salinity (1,000 - 3,000 milligrams/Litre Total Dissolved solids (TDS)) (GIS Database). Appropriate surface water management practices will be implemented through the Laverton Gold Project Environmental Management Plan to minimise erosion and minimise potential impacts on the quality of surface water (Botanica Consulting, 2011a). The proposed clearing of 80 hectares of native vegetation is unlikely to further deteriorate the quality of underground water.

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

Methodology BoM (2011)
Botanica Consulting (2011a)

Department of Water (2011)
GIS Database:
- Hydrography, linear
- Groundwater Salinity, Statewide
- Public Drinking Water Source Areas

(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 experiences an arid climate with mainly winter rainfall, with an annual average rainfall of approximately 234.3 millimetres per year (CALM, 2002; BoM, 2011). Based on an average annual evaporation rate of 2,800 - 3,200 millimetres (BoM, 2011), any surface water resulting from rainfall events is likely to be relatively short lived.

Given the size of the area to be cleared (80 hectares) compared to the size of the Lake Carey catchment area (11,378,213 hectares) (GIS Database) it is not likely that the proposed clearing will lead to an appreciable increase in run off, and subsequently cause or exacerbate the incidence or intensity of flooding.

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

Methodology

BoM (2011)
CALM (2002)
GIS Database:
- Hydrographic Catchments - Catchments
- Hydrography, Linear

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

Comments

There are no Native Title claims over the area under application. 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 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 clearing permit application was advertised on 4 July 2011 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

Methodology

GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT

4. References

BoM (2011) Climate Statistics for Australian Locations. A Search for Climate Statistics for Laverton WA, Australian Government Bureau of Meteorology, viewed 26 July 2011, <http://reg.bom.gov.au/climate/averages/tables/cw_012045.shtml>.

Botanica Consulting (2011a) Level 1 Flora & Vegetation Survey, Crescent Gold. Final Report. Prepared for Crescent Gold Limited, March 2011.

Botanica Consulting (2011b) Terrestrial Fauna Survey (Level 1) of the West Laverton Area. Prepared for Crescent Gold Limited, June 2011.

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Murchison (MUR1 ? East Murchison subregion) Department of Conservation and Land Management, Western Australia.

DEC (2011) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 26 July 2011, <http://naturemap.dec.wa.gov.au>.

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.

Department of Water (2011) Advice provided to the Department of Mines and Petroleum for Clearing Permit Application CPS 4444/1 on 3 August 2011.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Pringle , H.J.R., Van Vreeswyk, A.M.E., & Gilligan, S.A (1994) Technical Bulletin No. 87 An Inventory and condition survey of

the North Eastern Goldfields, Western Australia. Department of Agriculture, Western Australia.
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.

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.