

Clearing Permit Decision Report

. Application details

| 1.1. Permit application de | tails | | | | |
|---------------------------------|--|---|--|--|--|
| Permit application No.: | 6557/1 | | | | |
| Permit type: | Purpose Permit | | | | |
| 1.2. Proponent details | | | | | |
| Proponent's name: | Quarry Park Pty Ltd | | | | |
| 1.3. Property details | | | | | |
| Property: | Mining Lease 08/489 Miscellaneous Licence 08/70 | | | | |
| Local Government Area: | Shire of Ashburton | | | | |
| Colloquial name: | Inslow Limestone Project | | | | |
| 1.4. Application | | | | | |
| Clearing Area (ha) No. Tr 25 | rees Method of Clearing Mechanical Removal | For the purpose of: Mineral Production | | | |
| 1.5. Decision on application | | | | | |
| Decision on Permit Application: | Grant | | | | |
| Decision Date: | 18 June 2015 | | | | |
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| 2. Site Information | | | | | |

2.1. Existing environment and information

Vegetation Description

2.1.1. Description of the native vegetation under application

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 (Government of Western Australia, 2013; GIS Database):

- 589: Mosaic: Short bunch grassland – savannah / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex

A two season flora survey has been undertaken over the application area by Newland Environmental in December 2011 and March 2013 (Newland Environmental, 2014). The following vegetation types were recorded within the application area:

1 - Triodia epactia Sand Dune

Scattered Shrubs to Open Shrubland of *Grevillia stenobotrya* (2m by 1-4%) over Open Hummock Grassland of *Triodia epactia* (0.5m by 10-15%) with Very Open Tussock Grassland of **Cenchrus ciliaris* on (0.4m by 2-5%) on Sand Dunes.

2 - Triodia epactia Limestone Slopes

Scattered Shrubs to Scattered Tall Shrubs of *Acacia tetragonophylla, Acacia synchronicia, Acacia pyrifolia* var. *morrisonii* and/or *Acacia sclerosperma* subsp. *sclerosperma* (1-3m by >1-2%) over Scattered Hummock Grass to Open Hummock Grassland of *Triodia epactia* (0.3-0.5m by <1-20%) with Scattered Tussock Grass to Very Open Tussock Grassland of **Cenchrus ciliaris* (0.3m by <1-3%) on leeward slopes of Sand Dune.

3 - Triodia epactia Sand Plain

Low Scattered Shrubs to Open Shrubland of *Acacia sclerosperma* subsp. *sclerosperma*, *Acacia stellaticeps*, *Acacia synchronicia* and / or *Acacia tetragonophylla* (0.5- 2m by 1 - 6%) over Open Hummock Grassland of *Triodia epactia* (0.4 -0.5m by 15 - 30%) with Scattered Tussock Grass to Very Open Tussock Grassland of **Cenchrus ciliaris* (0.5 - 0.5% by <1 - 10%) on Sand Plains.

4 - Mixed Hakea and Acacia Shrubland on Plains

Open Shrubland to High Shrubland of *Hakea chordophylla*, *Acacia pyrifolia* var. *morrisonii* and/ or *Acacia tetragonophylla* (1.5m by 5 – 14%) over Open Hummock Grassland of *Triodia epactia* (0.4m by 15%) with Very Open Tussock Grassland of **Cenchrus ciliaris* (0.4m by 2 – 7%) on Sand Plains with Limestone Outcropping.

5 - Mixed Tussock Grassland on Flood Plains

Very Open Tussock Grassland to Tussock Grassland of *Eragrostis falcata*, *Eriachne benthamii*, *Chloris pumilio* and / or *Dichanthium? sericeum* subsp. *humilius* (0.3-0.4m by 2 – 32%) on Claypan.

6 - Eucalyptus sp. over Tussock Grassland on Flood Plains

Scattered Low Trees of *Eucalyptus camaldulensis* and / or *Eucalyptus victrix* (3 – 8m by 1%) over Scattered Shrubs to Open Shrubland of *Acacia tetragonophylla*, *Vachellia farnesiana and / or

| | Acacia sericophylla (1.5 – 2m by 1 – 3%) over Open Tussock Grassland to Closed Tussock Grassland of <i>Eragrostis falcata, Eriachne benthamii, Eulalia aurea, Chloris pumilio</i> and / or <i>Urochloa occidentalis</i> subsp. <i>ciliate</i> (0.3-0.6m by 23- 85%) on Flood Plains. |
|----------------------|---|
| | 7 - Acacia sp. over Tussock Grassland on Flood Plain Low Scattered Shrubs to Low Open Shrubland of Acacia tetragonophylla, Acacia sericophylla and *Vachellia farnesiana (1-2m by 1 – 8%) over Open Hummock Grassland to Closed Hummock Grassland of Eragrostis falcata, Eriachne benthamii and Eulalia aurea (0.3 - 0.7m by 20-80%) on Flood Plain. |
| | 8 - Scattered Eucalyptus on Scalded Plains Scattered Low trees to Very Open Low Woodland of <i>Eucalyptus camaldulensis</i> (6m by <1 -3%) over Scattered Shrubs to Open Shrubland of <i>Acacia synchronicia</i> (3m by 1 – 3%) over Scattered Tussock Grass to Very Open Tussock Grassland of <i>Chloris pumilio</i> and <i>Urochloa occidentalis</i> subsp. <i>ciliata</i> (0.3m by 0-0.6%) on Flood Plain. |
| | 9 - Eucalyptus sp. over Cenchrus Grassland on Flood Plains Low Open Woodland of Eucalyptus camaldulensis (4m by 3 – 10%) over Open Tussock Grassland to Tussock Grassland of *Cenchrus ciliaris, *Cenchrus setiger and Eragrostis falcata (0.3 – 0.4m by 21 – 60%) on Sand Plain. |
| | 10 - Triodia epactia in Ex-quarry Void Scattered Shrubs of Acacia tetragonophylla or Acacia stellaticeps (1 – 1.5m by 1 – 2%) over Very Open Hummock Grassland to Open Hummock Grassland of Triodia epactia (0.3 – 0.4m by 5 – 15%) in ex- quarry void. |
| Clearing Description | Onslow Limestone Project Quarry Park Pty Ltd proposes to clear 25 hectares of native vegetation within a total boundary of approximately 59 hectares for the purpose of mineral production. The project is located approximately 20 kilometres south-west of Onslow, in the Shire of Ashburton. |
| Vegetation Condition | Good: Structure significantly altered by multiple disturbances; retains basic structure/ability to regenerate (Keighery, 1994) |
| | То |
| | Completely degraded: No longer intact; completely/almost completely without native species (Keighery, 1994). |
| Comment | Vegetation condition determined by botanists from Newland Environmental (2014). |

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 Cape Range subregion of the Carnarvon Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by a mosaic of saline alluvial plains with samphire and saltbush low shrublands, Bowgada low woodland on sandy ridges and plains, Snakewood scub on clay flats and tree to shrub steppe over hummock grasslands on and between red sand dune fields (CALM, 2002).

A two season flora survey has been undertaken over the application area by Newland Environmental (2014). The flora survey recorded 10 vegetation associations occurring within the application area, none of which were identified as being Threatened or Priority Ecological Communities (Newland Environmental, 2014). According to available database, no Threatened or Priority Ecological Communities are known to occur within the application area (GIS Database). Newland Environmental (2014) did not consider any of the vegetation communities recorded in the application area to be restricted or unique to the area.

A total of 94 vascular taxa from 63 genera and 22 families were recorded within the application area (Newland Environmental, 2014). Poaceae (grasses) was found to be the dominant family, with Fabaceae (Peas) and Malvaceae (Hibiscus') also found to be common (Newland Environmental, 2014). There were no Threatened or Priority flora species recorded within the application area (Newland Environmental, 2014). Although the number of flora species recorded within the application area appears high, Newland Environmental (2014) advises that the floristic diversity is typical for the Onslow region.

Five introduced flora species were recorded in the survey area (Newland Environmental, 2014). Newland Environmental (2014) has identified major weed infestations within the application area which has resulted in significant land degradation. The proposed clearing activities may cause the introduction or spread of weeds into non-infested areas. Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. Potential impacts from weeds may be minimised through the implementation of a weed management condition.

A fauna survey undertaken over the application area by Newland Environmental (2015) has recorded 38 bird,

thirteen reptile and six mammal species within the application area. The fauna diversity and abundance recorded during the survey is considered to be low, which is comparable to other investigations carried out in the region during dry periods (Newland Environmental, 2015).

Based on the above, it is not likely the proposed clearing will impact on an area of relatively higher biological diversity. Therefore the proposed clearing is not likely to be at variance to this Principle.

Methodology CALM (2002)

Newland Environmental (2014) Newland Environmental (2015) GIS Database:

- IBRA WA (Regions - Sub Regions)

- 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

Newland Environmental (2015) has undertaken a fauna survey over the application area and incorporated habitat assessments, bird surveys, foraging surveys and spotlight surveys.

A total of five habitat types have been identified within the application area:

- Sand dunes;
- Sand plains;
- Floodplains;
- Clay pans; and
- Limestone outcrops.

The condition of the habitats has been influenced primarily by pastoral activities in the area and range from degraded to very good (Newland Environmental, 2015). They are considered relatively common throughout the region and are considered well represented, including in the Cane River Conservation Park, which is located approximately 60 kilometres south-east of the application area (Newland Environmental, 2015).

NatureMap (DEC, 2015) lists 36 conservation significant species within 20 kilometres of the application area (marine species have been excluded). The majority of these species are migratory bird species, which would not be solely reliant on the vegetation within the application for habitat.

Newland Environmental (2015) has recorded three conservation significant species within the application area, which are:

- Rainbow Bee-eater (Merops omatus) Migratory under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999), Schedule 3 under the Wildlife Protection Act 1950 (WC Act);
- Eastern Reef Egret (Egretta sacra) Migratory under the EPBC Act, Schedule 3 under the WC Act;
- White-bellied Sea Eagle (*Haliaeetus leucogaster*) Migratory under the EPBC Act, Schedule 3 under the WC Act

These three species are considered highly mobile and have a wide distribution are not likely to be impacted by the proposed clearing.

Based on the habitat assessment and distribution, the proposed clearing is not likely to significantly impact on any other conservation significant species (Newland Environmental, 2015).

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

Methodology DEC (2015) Newland Environmental (2015)

(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 datasets there are no known records of Threatened flora within the application area (GIS Database).

A flora survey undertaken by Newland Environmental (2014) did not record any Threatened flora species occurring within the application area.

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

Methodology Newland Environmental (2014) GIS Database: - Threatened and Priority 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.

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

According to available databases, there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest known TEC is located approximately 45 kilometres north-east of the application area.

Newland Environmental (2014) did not identify any TECs in their flora and vegetation survey of the application area.

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

Methodology Newland Environmental (2014) 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 Carnarvon Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database) in which approximately 99.74% of pre-European vegetation remains (Government of Western Australia, 2013). 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 within the application area is recorded as Beard vegetation association:

- 589: Mosaic: Short bunch grassland – savannah / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex

Approximately 99% pre-European vegetation remains for Beard vegetation association 589 respectively (Government of Western Australia, 2013).

| | Pre-European area (ha)* | Current extent (ha)* | Remaining %* | Conservation Status** | Pre-European % in DPaW Managed Land |
|--|----------------------------|-------------------------|-----------------|--------------------------|---|
| IBRA Bioregion - Carnarvon | 8,382,890 | 8,360,803 | ~99 | Least Concern | 11.61 |
| Beard vegetation associations - State | | | | | |
| 589 | 807,698 | 802,713 | ~99 | Least Concern | 1.59 |
| Beard vegetation associations - Bioregion | | | | | |
| 589 | 78,101 | 77,835 | ~99 | Least Concern | 0.00 |

* Government of Western Australia (2013)

** Department of Natural Resources and Environment (2002)

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

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

Methodology

y Department of Natural Resources and Environment (2002) Government of Western Australia (2013)

GIS Database:

- IBRA WA (Regions - Sub Regions)

- Pre-European Vegetation

| (f) Native assoc | e vegetation should not be cleared if it is growing in, or in association with, an environment iated with a watercourse or wetland. |
|----------------------|--|
| Comments | Proposal is not at variance to this Principle Available datasets show that the application area intersects with a minor non-perennial watercourse and is in close proximity to the Ashburton River/Estuary (GIS Database). According to Newland Environmental (2014), there are no drainage lines within the application area. The application area runs parallel to the Ashburton River, approximately six kilometres upstream from the transformed to th |
| | growing in association with a wetland or watercourse within the application area (Newland Environmental, 2014). 2014). |
| Mathadalagu | based on the above, the proposed cleaning is not at variance to this Principle. |
| Methodology | GIS Database: - Hydrography, Linear |
| (g) Native land c | e vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable egradation. |
| Comments | Proposal may be at variance to this Principle The application area intersects three broad land systems, namely: |
| | Onslow Land System – Undulating sand plains, dunes and level clay pans supporting soft spinifex grasslands and minor tussock grasslands; |
| | Dune Land System – Dune fields supporting soft spinifex grasslands; and Nanyarra Land System – Alluvial plains supporting tall shrublands and low woodlands with prominent tussock grasses. |
| | All three land systems have been identified as being susceptible to erosion, especially wind erosion after the vegetation cover has been removed (Van Vreeswyk et al, 2004; Payne et al, 1988). The proposed clearing may result in an increase rate of soil erosion by exposing soils to wind and surface water flow. Potential impacts from soil erosion may be minimised though the implementation of a staged clearing condition. |
| | Based on the above, the proposed clearing may be at variance to this Principle. |
| Methodology | Payne et al (1988) Van Vreeswyk <i>et al</i> (2004) GIS Database: - Rangeland Land Systems |
| (h) Native the er | e vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on vironmental 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 Cane River Conservation Park, which is located approximately 60 kilometres south-east of the application area (GIS Database). |
| | Given the distance between Cane River Conservation Park and the application area, the proposed clearing is not likely to impact on the environmental values of the park. |
| | Based on the above, the proposed clearing is not likely to be at variance to this Principle. |
| Methodology | GIS Database: - DEC Tenure |
| (i) Native in the | vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration quality of surface or underground water. |
| Comments | Proposal is not likely to be at variance to this Principle The application area does not occur within a Public Drinking Water Source Area (PDWSA), however it is located within the Pilbara groundwater area under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for purposes other than domestic and/or stock watering is subject to licence by the Department of Water. |
| | The application area is located on a mix of landforms, including floodplains associated with the Ashburton River (Newland Environmental, 2014). The proposed clearing may result in soil erosion, which may impact on the |
| | Page 5 |

Ashburton River if eroded soils are transported into the river by surface runoff. However the region only receives approximately 321.1 millimetres of rain annually (BoM, 2015) and significant surface runoff is only expected after substantial rainfall events, such as thunderstorms or cyclones (Newland Environmental, 2014). Furthermore, the local area has already experienced land degradation through historical pastoral activities (Newland Environmental, 2014). Therefore surface water is not likely to be significantly impacted by the proposed clearing.

Groundwater salinity in the local area ranges between 7,000 - 14,000 milligrams/Litre Total Dissolved Solids (TDS), which is considered brackish (GIS Database). The scale of the proposed clearing is not likely to cause deterioration of groundwater within the project area.

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

Methodology BoM (2015)

Newland Environmental (2014)

GIS Database:

- Groundwater Salinity, Statewide

- PDWSAs

- RIWI Act – Groundwater 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 is located within the floodplain of the Ashburton River, which is a large watercourse that drains into the Indian Ocean approximately six kilometres downstream (GIS Database). River flows are often associated with cyclonic or massive rainfall events that can result in broad flooding well past the riverbed (Newland Environmental, 2014). It is likely that areas of the application would be inundated following significant rainfall; however the proposed clearing is not likely to 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 Newland Environmental (2014)

GIS Database:

- Hydrography, Linear

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

Comments

There is one Native Title Claim (WC2008/003) over the area under application (GIS Database). This claim has been determined by the Federal Court of Australia. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal sites of significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the Department of Water, and the Department of Parks and Wildlife, 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 11 May 2015 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology GIS Database:

- Aboriginal Sites of Significance
- Native Title Claims Filed in the Federal Court

4. References

BoM (2015) Climate Statistics for Australian Locations. A Search for Climate Statistics for Onslow, Australian Government

Bureau of Meteorology, http://www.bom.gov.au.

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

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.

DEC (2015) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. http://naturemap.dec.wa.gov.au/.

Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.

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

- Newland Environmental (2014) Onslow Limestone Project Flora and Vegetation Survey on M08/489 & L08/70. Unpublished report prepared for Quarry Park Pty Ltd.
- Newland Environmental (2015) Level 1 Fauna Survey for the Proposed Onslow Limestone Project on M08/489 & L08/70. Unpublished report prepared for Quarry Park Pty Ltd.
- Payne A.L., Mitchell A.A., Holman W.F (1988) Technical Bulletin No. 62 An inventory and condition survey of rangelands in the Ashburton River catchment, Western Australia. Department of Agriculture, Western Australia.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) Technical Bulletin An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Government of Western Australia, Perth, Western Australia.

5. Glossary

Acronyms:

| ВоМ | Bureau of Meteorology, Australian Government |
|----------|---|
| DAA | Department of Aboriginal Affairs, Western Australia |
| DAFWA | Department of Agriculture and Food, Western Australia |
| DEC | Department of Environment and Conservation, Western Australia (now DPaW and DER) |
| DER | Department of Environment Regulation, Western Australia |
| DMP | Department of Mines and Petroleum, Western Australia |
| DRF | Declared Rare Flora |
| DotE | Department of the Environment, Australian Government |
| DoW | Department of Water, Western Australia |
| DPaW | Department of Parks and Wildlife, Western Australia |
| DSEWPaC | Department of Sustainability, Environment, Water, Population and Communities (now DotE) |
| EPA | Environmental Protection Authority, Western Australia |
| EP Act | Environmental Protection Act 1986, Western Australia |
| EPBC Act | Environment Protection and Biodiversity Conservation Act 1999 (Federal Act) |
| GIS | Geographical Information System |
| ha | Hectare (10,000 square metres) |
| IBRA | Interim Biogeographic Regionalisation for Australia |
| IUCN | International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union |
| PEC | Priority Ecological Community, Western Australia |
| RIWI Act | Rights in Water and Irrigation Act 1914. Western Australia |
| s.17 | Section 17 of the Environment Protection Act 1986 Western Australia |
| TEC | Threatened Ecological Community |
| | |

Definitions:

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{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

Threatened species:

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened Fauna and Flora are further recognised by DPaW according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.

Rankings:

CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild.

- EN: Endangered considered to be facing a very high risk of extinction in the wild.
- VU: Vulnerable considered to be facing a high risk of extinction in the wild.

X Presumed Extinct species:

Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).

Migratory birds protected under an international agreement:

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice.

Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.

S Other specially protected fauna:

IA

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.

P1 Priority One - Poorly-known species:

Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.

P2 Priority Two - Poorly-known species:

Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.

P3 Priority Three - Poorly-known species:

Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.

P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:

- a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
- b) Near Threatened. Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.

c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

P5 Priority Five - Conservation Dependent species:

Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five 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.