



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 9091/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Triple M Transport (WA) Pty Ltd

### 1.3. Property details

Property: Mining Lease 63/667  
Local Government Area: Shire of Esperance  
Colloquial name: Geordie Rock Gypsum

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
150		Mechanical Removal	Mineral production and associated activities

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 23 December 2020

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description** The vegetation of the application area is broadly mapped as the following Beard vegetation association:

125: Bare areas; salt lakes

Two flora and vegetation surveys was conducted over the application area by Landform Research on 7 September 2017 and 8 November 2018, with additional field inspections were completed in June 2019 and November 2019 (Landform Research, 2020a; 2020b).

The following vegetation associations were recorded within the application area (Landform Research, 2020a):

- **Elevated Lake Bed:** Chenopod ground cover dominated by *Tecticornia*, is never flooded and consists of low rises of fine gypsum crystals and kopi gypsum. The vegetation is dominated by *Tecticornia halocnemoides* and *Tecticornia pergranulata* as an almost exclusive vegetation type. On slightly higher elevations isolated or occasional species of *Frankenia cinearea* and *Frankenia pauciflora* and occasional species from the Low gypsum ridges may be found.
- **Low Gypsum Ridge:** Predominantly scattered and sparse tall shrubland over bare gypsum kopi. Typical species are *Disphyma crassifolium*, *Olearia muricata*, *Atriplex paludosa*, *Maireana oppositifolia*, some patches of *Austrostipa juncifolia* with occasional stunted *Casuarina obesa* with sparse groundcover that includes Chenopods.
- **Higher Gypsum Ridges:** Vegetation similar to the lower ridges, but where *Callitris columellaris*, occasional stunted *Casuarina obesa*, *Astroloma epacridis*, *Exocarpus aphyllus*, *Santallum acuminatum*, *Zygophyllum compressum* and *Melaleuca acuminata* are added with sparse groundcover that includes Chenopods.
- **Active Lake Bed:** These areas are bare of vegetation due to frequency of flooding and hyper saline water.

**Clearing Description** Geordie Rock Gypsum.  
Triple M Transport (WA) Pty Ltd (Triple M) proposes to clear up to 150 hectares of native vegetation within a boundary of approximately 218.6 hectares, for the purpose of mineral exploration and associated activities. The project is located on Lake Tay, approximately 120 kilometres north northwest of Esperance, within the Shire of Esperance.

**Vegetation Condition** Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).

To

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

**Comment**

The vegetation condition was derived from a vegetation survey conducted by Landform Research (2020a).

The proposed clearing by Triple M is to enable the extraction of gypsum from Mining Lease 66/667, located on the eastern part of Lake Tay. All gypsum deposits are formed from the aeolian accumulation of gypsum derived from the saline lake and all comprise a very small part of the mining lease (and application area). The site contains both ridge and lake bed gypsum. As part of the approved site closure plan (Landform Research, 2020c), the intended final land use is a return to lake bed and habitat islands, revegetated with local native species.

The proposed clearing of 150 hectares within a boundary of approximately 218.6 hectares is contained within a lake with an area of around 10,310 hectares (Landform Research, 2020d). This represents approximately 1.45% of the lake bed and less than 0.005% of the vegetation found on the lake (Landform Research, 2020d).

### 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 may be at variance to this Principle**

The clearing permit application area is located within the Eastern Mallee subregion of the Interim Biogeographic Regionalisation for Australia Mallee Bioregion (GIS Database). The Eastern Mallee subregion is characterised by calcareous clays and loams as duplex soils that often contain sheet and modular outcrops of metamorphosed sandstone, and white and yellow sand plains and loamy plains with numerous salt pans (pan fields). The vegetation is composed of mallee on sandplains, samphire around small salt lakes, mallee and patches of woodland on clay, scrubheath on sandstone and mallee with *Melaleuca pauperiflora* on calcareous clay and loam (CALM, 2002).

The application area consists of isolated higher vegetated gypsum dune ridges, which range in elevation from one metre to over three metres sitting up from the lake bed. The partially vegetated elevated lake bed has a gypsum cover and bare clay covered lake bed that floods in occasional sustained rainfall events (Landform Research, 2020a).

The lake bed gypsum community fringes the higher dunes and occupies approximately 50% of the tenement, with the remainder of the tenement being bare clay pan, devoid of vegetation, which was not surveyed (Landform Research, 2020a).

No Threatened Ecological Communities or Priority Ecological Communities have been recorded within the vicinity of the application area (GIS Database).

Two flora and vegetation surveys were conducted over the application area by Landform Research on 7 September 2017 and 8 November 2018 (Landform Research, 2020a). Additional field inspections were completed in June 2019 and November 2019 (Landform Research, 2020a; 2020b). From these, a total of 35 flora species were identified (Landform Research, 2020a).

A review of available databases indicate that the Priority species *Pimelea pelinos* (P1) and *Thysanotus brachyantherus* have previously been identified in close proximity to the boundary of the application area on the shores and ridges of the lake, however these species were not identified as part of the field surveys (DBCA, 2020; Western Australian Herbarium, 1998-; GIS Database).

The Priority species *Goodenia salina* (P2) was recorded as isolated to scattered plants on a low gypsum ridge during a November 2018 survey, but was not observed during subsequent searches (Landform Research, 2020a; Western Australian Herbarium, 1998-; GIS Database). The species is relatively well represented regionally, usually found in scattered and localised populations on and around salt lakes (DBCA, 2007-; Western Australian Herbarium, 1998-). The species is potentially more widely distributed along Lake Tay (Landform Research, 2020a), however the scope of surveys conducted over the application area do not confirm the location, or quantify the status, of population(s) around the application area and the lake itself. A flora management condition is recommended to minimise potential impacts of the proposed clearing to *Goodenia salina* (P2).

The only exotic species recorded near the application by Landform Research (2020a; 2020b) was *Trachyandra divaricata* (Strapweed). Weeds have the potential to out-compete native species and reduce the biodiversity of an area, and care should be taken to prevent the introduction or spread of weeds in the application area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A total of 139 native fauna species, including 77 bird species, 28 reptile species, 4 mammal species, 27 invertebrate species and 3 amphibian species have been recorded within 20 kilometres of Lake Tay (DBCA, 2007-). The fauna habitats and landform types found within the application area are well represented locally around the lake and regionally (DAWE, 2020; DBCA, 2007-; Landform Research 2020a; GIS Database).

The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (Landform Research, 2020a; GIS Database). The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

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

**Methodology** CALM (2002)  
DAWE (2020)  
DBCA (2007-)  
Landform Research (2020a)  
Western Australian Herbarium (1998-)

GIS Database:  
- IBRA Australia  
- Pre-European Vegetation  
- Threatened and Priority Ecological Communities Boundaries  
- Threatened and Priority Ecological Communities Buffers  
- Threatened and Priority Flora  
- Threatened Fauna

**(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 recent fauna surveys have been conducted over the application area, however the vegetation and landform descriptions by Landform Research (2020a) and a detailed review of aerial imagery (GIS Database) identify the following habitat types within the application area:

- Bare areas of the lake bed;
- Elevated lake bed;
- Low gypsum ridges; and
- Higher gypsum ridges.

Desktop searches of available databases identify a total of 139 native fauna species which have been recorded within 20 kilometres of Lake Tay (DBCA, 2007-). This includes 77 bird species, 28 reptile species, 4 mammal species, 27 invertebrate species and 3 amphibian species (DBCA, 2007-). The Mallefowl (*Leipoa ocellata*, Threatened), occurs within the region (DBCA, 2007-), however it is unlikely to occur within the habitat types represented in the application area.

Some other fauna species of conservation significance (mostly migratory and marine birds) have the potential to occur within the application area (DAWE, 2020; DBCA, 2007-). However none are likely to be specifically dependant on the fauna habitats within the application area, as they have broad distribution ranges and/or nomadic or migratory habits (DAWE, 2020; DBCA, 2007-).

The proposed clearing of 150 hectares within a boundary of approximately 218.6 hectares is contained within a lake with an area of approximately 10,310 hectares (Landform Research, 2020d). This represents approximately 1.45% of the lake bed and less than 0.005% of the vegetation remaining on the lake, which is sparse and provides very limited fauna habitat (Landform Research, 2020d).

The fauna habitats within the application area are well represented along the remainder of the lake, and the area proposed to be cleared is unlikely to represent a significant habitat for fauna in a local or regional context. Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** DAWE (2020)  
DBCA (2007-)  
Landform Research (2020a)  
Landform Research (2020d)

GIS Database:  
- Imagery  
- Pre-European Vegetation  
- Threatened Fauna

**(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**

There are no known records of Threatened flora within the application area (DBCA, 2007-; GIS Database). Flora surveys of the application area did not record any species of Threatened flora (Landform Research, 2020a).

The vegetation associations within the application area are common and widespread within the region (Landform Research 2020d; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

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

**Methodology** DBCA (2007-)  
Landform Research (2020a)

GIS Database:  
- Pre-European Vegetation  
- 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**

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to 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 and Priority Ecological Communities Boundaries  
- Threatened and Priority Ecological Communities Buffers

**(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 Mallee Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 56% of the pre-European vegetation still exists in the IBRA Mallee Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation association 125: Bare areas; salt lakes (GIS Database). Approximately 90% of the pre-European extent of this vegetation association remains uncleared at the State level, and approximately 67% at the bioregional level (Government of Western Australia, 2019).

Therefore, the application area does not represent 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 DBCA managed lands
IBRA Bioregion – Mallee	7,395,894	4,180,937	~56	Least Concern	~18
Beard vegetation associations – WA					
125	3,485,785	3,146,487	~90	Least Concern	~9
Beard vegetation associations – Mallee Bioregion					
125	160,327	107,845	~67	Least Concern	~26

\* Government of Western Australia (2019)

\*\* 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)  
Government of Western Australia (2019)

GIS Database:  
- IBRA Australia  
- 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 area proposed to clear (Landform Research, 2020a; GIS Database). The application area covers parts of the lake bed and ridges along the eastern portion of Lake Tay, a saline lake which stretches approximately 20 kilometres east-west (DPIRD, 2020). The lake is fed by direct precipitation and localised intermittent drainages, the longest of which drains from the west (less than 10 kilometres). The lake is internally draining and its surface is usually dry with only rare and episodic inundation (DPIRD, 2020; Landform Research, 2020a; GIS Database).

The proposed clearing of 150 hectares within a boundary of approximately 218.6 hectares is contained within a lake with an area of approximately 10,310 hectares (Landform Research, 2020d). This represents approximately 1.45% of the lake bed and less than 0.005% of the vegetation remaining on the lake (Landform Research, 2020d). Vegetation around the lake beds and gypsum ridges is sparse and the proposed clearing is unlikely to result in significant impact to the vegetation associated with the shores of the lake.

Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation growing in association with the lake may be minimised by the implementation of a vegetation management condition.

**Methodology** DPIRD (2020)  
Landform Research (2020a)  
Landform Research (2020d)

GIS Database:  
- Hydrography, 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**

The application area lies within the Halbert 2 land system (DPIRD, 2020). This land system has been mapped and can be described as salt lake soils with associated calcareous loamy earths, pale deep sands and other soils, mostly devoid of vegetation although samphire and isolated clumps of shrubs may be present on the lake margins (DPIRD, 2020; GIS Database).

The application area is naturally prone to wind erosion, as a high proportion of its surface is devoid of significant vegetation. The removal of the remaining vegetation will increase the wind erosion hazard and possibly result in an increased airborne dust load during high wind events if the land surface is dry at the time (DPIRD, 2020).

The proposed clearing of up to 150 hectares of native vegetation within a boundary of approximately 218.6 hectares, for the purpose of gypsum extraction may cause appreciable land degradation if not adequately managed.

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

**Methodology** DPIRD (2020)

GIS Database:  
- Soils, Statewide

**(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**

There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the Peak Charles National Park which is located approximately 16 kilometres west of the application area (GIS Database).

There is a current proposal to extend the Peak Charles National Park to the east, encompassing Mining Lease 63/667, as part of the 'Plans For Our Parks' State program. However the lease has been excluded from the proposed extension following consultation between DMIRS, DBCA and the applicant (Landform Research, 2020a). The proposed clearing is unlikely to impact on the environmental values of any conservation area.

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

**Methodology** Landform Research (2020a)

GIS Database:

- DPaW Tenure
- Tenograph File Notation Areas, Land – Special Category Land

**(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**

There is no Public Drinking Water Source Area within or in close proximity to the application area (GIS Database). The application area entirely overlaps Lake Tay, a salt lake that periodically naturally floods, however there are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). The lake internally drains, and no drainage lines are associated with the application area (DPIRD 2020d; GIS Database).

Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (Landform Research, 2020a). The application area is confined to the lake bed and contained ridges, and the proposed clearing is unlikely to result in significant changes to surface water flows.

The lake is naturally highly saline and clearing of sparse vegetation and barren lake bed surface within the application area is unlikely to contribute to a deterioration in the quality of the saline underground water.

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

**Methodology** Landform Research (2020a)

GIS Database:

- Hydrography, Linear
- 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 climate of the region is semi-arid Mediterranean, with an average rainfall of approximately 351 millimetres per year (BoM, 2020). Most of the rain occurs relatively evenly through the year with a more reliable slightly higher average in the winter months. In other months storms often produce a significant rainfall event followed by a period of low rainfall (CALM, 2002; Landform Research, 2020a).

The application area entirely overlaps Lake Tay, a salt lake that naturally floods periodically. Removal of native vegetation within the application area on the lake will not contribute to further flooding (DPIRD, 2020). No drainage lines are associated with the lake around the application area, and the lake internally drains (DPIRD 2020d; GIS Database).

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

**Methodology** BoM (2020)  
CALM (2002)  
DPIRD (2020)  
Landform Research (2020a)

GIS Database:

- Hydrographic Catchments - Catchments
- Hydrography, linear

## Planning Instrument, Native Title, previous EPA decision or other matter.

### Comments

The clearing permit application was advertised on 16 November 2020 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC1999/002) over the area under application (DPLH, 2020). This claim has been determined by the Federal Court on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2020). 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 Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, 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** DPLH (2020)

## 4. References

- BoM (2020) Bureau of Meteorology Website – Climate Data Online, Salmon Gum. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 15 December 2020).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DAWE (2020) EPBC Act Protected Matters Search Tool. Department of Agriculture, Water and the Environment. <https://www.environment.gov.au/epbc/protected-matters-search-tool> (Accessed 15 December 2020).
- DBCA (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Biodiversity, Conservation and Attractions. <https://naturemap.dbca.wa.gov.au/> (Accessed 17 December 2020).
- DPIRD (2020) Correspondence and desktop assessment received in relation to Clearing Permit Application CPS 9091/1. Commissioner of Soil and Land Conservation, Department of Primary Industries and Regional Development, Western Australia, November 2020.
- DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 17 December 2020).
- 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.
- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Landform Research (2020a) Flora and Vegetation Study M63/667, Geordie Rock Gypsum. Report prepared for Triple M Transport (WA) Pty Ltd by Landform Research, May 2020.
- Landform Research (2020b) Flora and Vegetation Study Magagnotti Road, North Cascades – Salmon Gums. Report prepared for Triple M Transport (WA) Pty Ltd by Landform Research, January 2020.
- Landform Research (2020c) Mine Closure Plan – Geordie Rock Gypsum, M63/667. Report prepared for Triple M Transport (WA) Pty Ltd by Landform Research, April 2020.
- Landform Research (2020d) Mining Proposal – Geordie Rock Gypsum, M63/667. Report prepared for Triple M Transport (WA) Pty Ltd by Landform Research, April 2020.
- Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/> (Accessed 15 December 2020).

## 5. Glossary

### Acronyms:

<b>BC Act</b>	<i>Biodiversity Conservation Act 2016</i> , Western Australia
<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia (now DPLH)
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia (now DPIRD)
<b>DAWE</b>	Department of Agriculture, Water and the Environment, Australian Government
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions, Western Australia
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia

<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DMIRS)
<b>DoEE</b>	Department of the Environment and Energy (now DAWE)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DPIRD</b>	Department of Primary Industries and Regional Development, Western Australia
<b>DPLH</b>	Department of Planning, Lands and Heritage, Western Australia
<b>DRF</b>	Declared Rare Flora (now known as Threatened Flora)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

### **Definitions:**

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia):-

#### **T            Threatened species:**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

**Threatened fauna** is that subset of ‘Specially Protected Fauna’ listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of ‘Rare Flora’ listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

#### **CR            Critically endangered species**

Threatened species considered to be “*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

#### **EN            Endangered species**

Threatened species considered to be “*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

#### **VU            Vulnerable species**

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

### **Extinct Species:**

#### **EX            Extinct species**

Species where “*there is no reasonable doubt that the last member of the species has died*”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).



Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

**EW**

**Extinct in the wild species**

Species that “is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

**Specially protected species:**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

**MI**

**Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**CD**

**Species of special conservation interest (conservation dependent fauna)**

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**OS**

**Other specially protected species**

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**P**

**Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

**P1**

**Priority One - Poorly-known species**

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

**P2 Priority Two - Poorly-known species**

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

**P3 Priority Three - Poorly-known species**

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations 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 locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

**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 are close to qualifying for vulnerable but are not listed as Conservation Dependent.

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