

Clearing Permit Decision Report

1. Application details

1.1. Permit application	on details				
Permit application No.:	7408	7408/3			
Permit type:	Purp	ose Permit			
1.2. Proponent detail	S				
Proponent's name:		MI MORGANS WA MINING PTY LTO			
1.3. Property details	Mining Lesses: 30/18 30/36 30/228 30/236 30/272 30/273 30/282 30/305 30/200 30/205				
	39/4	39/403, 39/513, 39/1107, 39/1120, 39/1129			
	Misc	Miscellaneous Licences: 39/57, 39/244			
Local Government Area:	Shire	Shire of Laverton			
Colloquial name:	Mt M	Mt Morgans Gold Project			
1.4. Application					
Clearing Area (ha) 740	No. Trees	Method of ClearingFor the purpose of:Mechanical RemovalMineral production a	nd associated activities		
1.5. Decision on appl	lication	on			
Decision On Permit Applica	21 M	21 May 2020			
		-,			
2. Site Information					
2.1. Existing environ	ment and i	formation			
2.1.1. Description of the	native vege	tation under application			
Vegetation Description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations:				
	18: Low woodland; mulga (<i>Acacia aneura</i>); 39: Shrublands; mulga scrub; and 389: Succulent steppe with open low woodland; mulga over saltbush. (GIS Database).				
	A flora and vegetation survey was conducted by Native Vegetation Solutions in March 2016 over the application areas and surrounding areas, covering a total area of approximately 4,641 hectares (Native Vegetation Solutions, 2016). A follow up targeted survey was completed by Native Vegetation Solutions on 3 August 2017 covering sections of the bore field that were not covered by the 2016 assessment (Mt Morgans WA Mining Pty Ltd, 2017). A third flora and vegetation survey over an additional 498 hectares was undertaken in September 2019 by Native Vegetation Solutions covering the Mt Marven and Phoenix Ridge areas.				
	The following vegetation communities were recorded within the broader survey area (Native Vegetation Solutions, 2016; Mt Morgans WA Mining Pty Ltd, 2017, Native Vegetation Solutions, 2019):				
	Rehabilitation Vegetation - Acacia aneura, A. mulganeura, Eucalyptus clendii, E. Campaspe, E. torquata, Maireana pyramidata, Atriplex vesicaria and Senna artemisioides subsp. filifolia;				
	Acacia aneura shrubland - Acacia aneura, A. mulganeura, A. pteraneura, A. craspedocarpa, Senna cardiosperma, Senna glutinosa subsp. chatelainiana, Eremophila platycalyx subsp. platycalyx and Eremophila compacta;				
	Tecticornia shrubland - Tecticornia species, Maireana glomerifolia, Sclerolaena cuneata, Atriplex vesicaria, elaleuca interioris and Casuarina obesa;				
	Kopai dunes with Tecticornia and Casuarina – Casuarina obesa, C. pauper, Acacia burkittii, Grevillea berryana, Exocarpos aphyllus, Tecticornia indica subsp. bidens, T. halocnemoides subsp. tenuis and T. disarticulata;				
	Acacia shrubland on emergent hills - Acacia aneura, A. pteraneura, A. grasbyi, A. tetragonophylla, Cratystylis subspinescens, Scaevola spinescens, Senna cardiosperma, Maireana sedifolia, and Eremophila oppositifolia subsp. angustifolia;				
	Acacia over Chenopod shrubland - Acacia aneura, A. mulganeura, A. pteraneura, Maireana pyramidata, Sclerolaena diacantha, Tecticornia indica subsp. bidens, T. peltata, T. undulata, Cratystylis subspinescens, Atriplex vesicaria and Atriplex bunburyana;				
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Acacia over Eremophila and Sclerophyll shrubland on BIF Ridges - Acacia aneura, Eremophila georgei, Eremophila latrobei subsp. latrobei, Eremophila margarethae, Eremophila platycalyx subsp. platycalyx, Scaevola spinescens, Senna artemisioides subsp. helmsii, Solanum lasiophyllum and Dodonaea rigida;

Tecticornia shrubland within Laterite breakaways - Tecticornia disarticulata, T. indica subsp. bidens, T. peltata, Frankenia setosa, Dodonaea lobulata, Pittosporum angustifolium and Eremophila pantonii;

Acacia mulganeura over Eremophila forrestii and grasslands - Acacia mulganeura, A. caesaneura, A. aneura, A. craspedocarpa, Eremophila forrestii subsp. forrestii, Scaevola spinescens, Eragrostis eriopoda, Eremophila platythamnos subsp. exotrachys, Crenidium spinescens and Triodia basedowii.

Acacia aneura creekline vegetation - Acacia aneura, Acacia caesaneura, Acacia mulganeura, Acacia tetragonophylla, Eremophila oppositifolia subsp. angustifolia, Scaevola spinescens, Ptilotus obovatus, Senna artemisioides subsp. sturtii, Lepidium platypetalum, and Spartothamnella teucriiflora;

Acacia shrublands on undulating hills - Acacia resinimarginea, Acacia aneura, Calytrix erosipetala, Eremophila georgei, Eremophila forrestii subsp. forrestii, Dodonaea rigida, Chrysocephalum puteale, Eremophila latrobei subsp. filiformis and Senna artemisioides subsp. helmsii;

Acacia aneura woodland over Maireana sedifolia and Acacia victoriae mixed shrubland - Acacia aneura, A. pteraneura, Maireana sedifolia, Atriplex bunburyana, Maireana tomentosa, Acacia victoriae subsp. victoriae, Cratystylis subspinescens, Eremophila miniata, Solanum plicatile, Solanum austropiceum, Acacia kempeana and Eremophila longifolia;

Acacia shrubland on lower breakaways - Acacia kalgoorliensis, Tecticornia peltata, T. pergranulata subsp. elongata, Frankenia georgei and Sida calyxhymenia;

Acacia oswaldii shrubland - Acacia oswaldii, Brachychiton gregorii, Acacia ligulata, Acacia caesaneura, Jacksonia arida, Eragrostis eriopoda, Enneapogon caerulescens, Gunniopsis quadrifida and Pimelea microcephala, subsp. microcephala;

Acacia burkittii shrubland - Acacia burkittii, Grevillea berryana, Acacia victoriae subsp. victoriae, Acacia tetragonophylla, Senna artemisioides subsp. filifolia, Acacia ayersiana, Acacia caesaneura, Melaleuca interioris and Enneapogon caerulescens;

Open Melaleuca shrubland - Melaleuca hamata, Duma florulenta, Spartothamnella teucriiflora and Rhagodia eremaea;

Melaleuca sheathiana over Tecticornia shrubland - Melaleuca sheathiana over Tecticornia shrubland;

Tecticornia Shrubland and Acacia over Chenopod shrubland - Tecticornia species, Maireana glomerifolia, Sclerolaena cuneate, Atriplex vesicaria, elaleuca interioris and Casuarina obesa. Acacia aneura, A. mulganeura, A. pteraneura, Maireana pyramidata, Sclerolaena diacantha, Tecticornia indica subsp. bidens, T. peltata, T. undulata, Cratystylis subspinescens, Atriplex vesicaria and Atriplex bunburyana;

Acacia over Chenopod shrubland and Open Melaleuca shrubland – Melaleuca hamata, Duma florulenta, Spartothamnella teucriiflora and Rhagodia eremaea. Acacia aneura, A. mulganeura, A. pteraneura, Maireana pyramidata, Sclerolaena diacantha, Tecticornia indica subsp. bidens, T. peltata, T. undulata, Cratystylis subspinescens, Atriplex vesicaria and Atriplex bunburyana;

Melaleuca pauper over Tecticornia shrubland - Melaleuca pauper over Tecticornia shrubland;

Bare Salt Lakes - no vegetation;

Acacia shrublands on Greenstone rocky hills - Acacia pteraneura, Acacia ligulata, Acacia prainii, Senna artemisioides subsp. filifolia, Eremophila pantonii, Hakea recurva subsp. recurva, Maireana sedifolia, Senna rtemisioides subsp. sturtii, Scaevola spinescens and Hakea preissii;

Acacia over Maireana sedilfolia and other mixed shrublands - Acacia aneura, A. pteraneura, Maireana sedifolia, Atriplex bunburyana, Maireana tomentosa, Cratystylis subspinescens Eremophila miniata, Solanum plicatile, Solanum austropiceum, Acacia kempeana and Eremophila longifolia;

Tecticornia shrubland on lower breakways - Tecticornia disarticulata, Tecticornia indica subsp. bidens, Tecticornia peltata and Maireana triptera;

Acacia aneura shrubland over Banded Ironstone Hills - Acacia aneura, Acacia craspedocarpa, Acacia mulganeura, Acacia tetragonophylla, Psydrax suaveolens, Senna artemisioides subsp. filifolia, Dodonaea petiolaris, Dodonaea rigida and Eremophila platycalyx subsp. Platycalyx; and

Acacia aneura and Acacia ramulosa shrubland - Acacia aneura, Acacia mulganeura, Acacia ramulosa subsp. ramulosa, Acacia grasbyi, Senna artemisioides subsp. artemisioides, Senna artemisioides subsp. helmsii, Eremophila platycalyx subsp. platycalyx, Dodonaea rigida and Scaevola spinescens.

Clearing Description Mt Morgans Gold Project.

Mt Morgans WA Mining Pty Ltd proposes to clear up to 740 hectares of native vegetation within a boundary of approximately 5,439 hectares, for the purposes of mineral production and associated activities. The project is located approximately 30 kilometres southwest of Laverton, within the Shire of Laverton.

Vegetation Condition Very Go

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

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

Comment

The vegetation condition was derived from vegetation surveys conducted by Native Vegetation Solutions (2016 and 2019).

Clearing permit CPS 7408/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 16 February 2017 and was valid from 11 March 2017 to 31 December 2024. The permit authorised the clearing of up to 633 hectares of native vegetation within a boundary of approximately 2,981 hectares, for the purpose of mineral production and associated activities.

CPS 7408/2 was granted on 10 October 2017, amending the permit to increase the permit boundary, increase the amount of authorised clearing, and to include additional tenure.

On 13 March 2020, the Permit Holder applied to amend CPS 7408/2 to increase the permit boundary by 135 hectares and to include updated tenure details.

3. Assessment of application against Clearing Principles

Comments

The application area is located within the Eastern Murchison subregion of the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). The Eastern Murchison subregion is characterised by broad plains of red-brown soils and breakaway complexes as well as red sandplains. The vegetation of this subregion is dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and *Halosarcia* shrublands (CALM, 2002). The Eastern Murchison subregion supports a rich and diverse flora and fauna, however most species are wide ranging and not restricted to the subregion (CALM, 2002).

Flora and fauna surveys were undertaken in 2016 by Native Vegetation Solutions (NVS) and Western Wildlife, respectively. A follow up targeted survey was completed by NVS in August 2017. Supplementary surveys in support of this application were completed by Western Wildlife in July 2019 and NVS in August 2019, covering sections of Mt Marven and Phoenix Ridge not previously surveyed.

All vegetation units identified are well represented in the broader project area and region (NVS, 2019). A total of 30 Families, 60 Genera and 156 Species were recorded within the Mt Marven survey area (NVS, 2019). No Threatened Flora were located in the survey area (NVS, 2019). The priority 3 flora species *Olearia mucronata* was recorded in the survey area, however the recorded locations of this species are outside of the clearing permit amendment area (Mt Morgans WA Mining Pty Ltd, 2020). No remnant vegetation occurs within the application area (Mt Morgans WA Mining Pty Ltd, 2020).

No Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) were recorded within the Mt Marven application area (NVS, 2019). However, a Priority Ecological Community is mapped as overlapping a portion of the north-eastern permit area (GIS Database). This PEC, "Mount Morgan calcrete groundwater assemblage type on Carey palaeodrainage on Mt Weld Station" (Priority 1) is mapped over a total area of approximately 2,779 hectares, and is identified as having a unique assemblage of invertebrates in the groundwater calcretes (Mt Morgans WA Mining Pty Ltd, 2017). The PEC refers to a stygofauna community in the groundwater and the proposed clearing of native vegetation in the Mt Marven application area is unlikely to have any significant impact on this PEC. Potential impacts to stygofauna are being managed through the Mining Proposal under the *Mining Act 1978*, specifically via a Stygofauna Management Plan (Mt Morgans WA Mining Pty Ltd, 2017).

Western Wildlife was engaged to complete a Level 1 fauna and habitat assessment of the Mt Morgans Project in March 2016. A further assessment targeting the Mt Marven area and Phoenix Ridge was conducted in July 2019. During the site visit no frogs, one reptile, 20 birds, two native mammals and three introduced mammals were recorded opportunistically (Western Wildlife, 2020). Seven fauna habitats were identified across the two study areas (Mt Marven and Phoenix Ridge), comprising:

- Low rocky hills;
- Banded Ironstone Formation (BIF) ridge;
- Mulga woodlands;
- Acacia shrubland on plains;
- Creeklines;
- Chenopod shrubland; and
- Samphire shrubland.

(Western Wildlife, 2020)

The habitats of the project area are considered widespread and well represented in the region (Western Wildlife, 2020). A total of 20 fauna species of conservation significance have the potential to occur in the study area (Western Wildlife, 2020). Of particular conservation importance, the Great Desert Skink, Malleefowl, Princess Parrot and Night Parrot are considered unlikely to occur, as the project area is located outside the

core species distribution, suitable habitat is absent and there is an absence of records in the region (Mt Morgans WA Mining Pty Ltd, 2020). Of the habitats present in the study area, the Low Rocky Hills and BIF Ridge have some importance in supporting populations of the Long-tailed Dunnart. The presence of this species in the region is likely to be determined by the availability of these habitats, and the loss of these habitats may lead to the local loss of this species (Mt Morgans WA Mining Pty Ltd, 2020). The remainder of the species have large foraging and breeding ranges or are migratory and are only likely to flyover, or forage on occasion within the application area. The proposed clearing is unlikely to impact these species.

There are no major river systems within the application area, however there are several ephemeral creek lines which drain north to south towards Lake Carey (GIS Database; Mt Morgans WA Mining Pty Ltd, 2020). Watercourses and drainage lines within the immediate vicinity of the application area are dry for the majority of the year, only flowing periodically during high rainfall events (Mt Morgans WA Mining Pty Ltd, 2020). Any minor impacts will be short term as the majority of the area cleared will be revegetated on completion of operations.

One vegetation group within the survey area, *Tecticornia* shrublands, is classified as riparian. The vegetation unit is dependent on surface water which is provided by rainfall onto the lake tributaries (Mt Morgans WA Mining Pty Ltd, 2020). Less than 2% of the total mapped area of the *Tecticornia* shrublands unit will be disturbed by the proposed amendments (Mt Morgans WA Mining Pty Ltd, 2020). This unit occurs extensively outside the survey area (Mt Morgans WA Mining Pty Ltd, 2020). It is considered unlikely that this will have an appreciable impact on the health of the Lake Carey system.

Clearing of vegetation around tributaries of Lake Carey has the potential to result in increased sediment loads. This will be minimised through installation of sediment control structures at locations where high sediment loads are anticipated or observed (Mt Morgans WA Mining Pty Ltd, 2020).

The application area lies within the Gundockerta, Jundee and Yilgangi land systems (GIS Database). These land systems range from gently undulating stony plains supporting scattered chenopod shrublands on calcareous red earths or red clay through to gently inclined and slightly elevated saline stony plains supporting scattered *Acacia aneura* (mulga) tall shrublands with halophytic understorey shrubs on shallow red earths on hardpan (DPIRD, 2020). The breakaway foot slopes, saline alluvial plains and narrow drainage zones of the Yilgangi land system have fragile soils susceptible to water erosion (DPIRD, 2020). Where not protected by a stony mantle, the saline plains and lower alluvial tracks in the Gundockerta land system are susceptible to water erosion, particularly where ground cover is reduced or the soil surface disturbed (DPIRD, 2020). To minimise potential land degradation as a result of the proposed amendment, it is recommended to maintain the staged clearing condition.

The proposed amendment is not likely to have any significant environmental impacts above those already assessed under Clearing Permit CPS 7408/1 and 7408/2.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.510 of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision reports CPS 7408/1 and 7408/2.

Methodology CALM (2002)

DPIRD (2020) Mt Morgans WA Mining Pty Ltd (2017) Mt Morgans WA Mining Pty Ltd (2020) Native Vegetation Solutions (2016) Native Vegetation Solutions (2019) Western Wildlife (2020)

GIS Database:

- DPaW Tenure
- Hydrography, Lakes
- Hydrography, Linear
- IBRA Australia
- Imagery
- Landsystem Rangelands
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Soils, Statewide
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers
- Threatened and Priority Flora
- Threatened Fauna

Planning Instrument, Native Title, previous EPA decision or other matter.				
Comments				
	There are no native title claims over the area under application (DPLH, 2020). The mining tenure has been granted in accordance with the future act regime of the <i>Native Title Act 1993</i> 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 <i>Native Title Act 1993</i> .			
	There are 19 registered Aboriginal Sites of Significance within the broader project area (DPLH, 2020). Registered heritage site-ID 18933 and lodged heritage site-ID 16078 on the Aboriginal Heritage Inquiry System (AHIS) extends over the application area (Mt Morgans WA Mining Pty Ltd, 2020). Site # 16078 is approximately 1.3km south of the proposed area and is not expected to be impacted by this proposal (Mt Morgans WA Mining Pty Ltd, 2020). The exact coordinates of the site # 18933 (cave painting) are not currently known, however an ethnographic and archaeological survey in August 2018 by Land Access Solutions Pty Ltd determined that it is not within the project area (Mt Morgans WA Mining Pty Ltd, 2020). It is the proponent's responsibility to comply with the <i>Aboriginal Heritage Act 1972</i> 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.			
	The amendment application was advertised on 20 April 2020 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. One submission was received in relation to this application regarding Aboriginal Heritage Sites. This matter has been addressed with an Ethnographic Survey and Archaeological Assessment Report prepared by Land Access Solutions Pty Ltd (2018) and dealt with directly by the applicant.			
Methodology	DPLH (2020) Land Access Solutions Pty Ltd (2018) Mt Morgans WA Mining Pty Ltd (2020)			

4. References

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

- DPIRD (2020) Advice received in relation to Clearing Permit Application CPS 7408/3. Commissioner of Soil and Land Conservation, Department of Primary Industries and Regional Development, Western Australia, May 2020.
- DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage.

http://maps.daa.wa.gov.au/AHIS/ (Accessed 28 April 2020).

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

Land Access Solutions Pty Ltd (2018) Dacian Gold Mt Morgans Gold Project: Mt Marven and Mt McKenzie Exploration Areas Ethnographic Survey and Archaeological Assessment Report. Report prepared for Dacian Gold Limited, August 2018.

Mt Morgans WA Mining Pty Ltd (2017) Purpose Permit Application Amendment to CPS 7408-1 - Assessment of Clearing Principles Mt Morgans Gold Project. Report prepared by Mt Morgans WA Mining Pty Ltd, August 2017.

- Mt Morgans WA Mining Pty Ltd (2020) Purpose Permit Application Amendment to CPS 7408-2 Assessment of Clearing Principles Mt Morgans Gold Project. Report prepared by Mt Morgans WA Mining Pty Ltd, March 2020.
- Native Vegetation Solutions (2016) Level 1 Flora and Vegetation Survey Dacian Gold Ltd Mt Morgans Gold Project. Report prepared for Dacian Gold Limited, by Native Vegetation Solutions, July 2016.
- Native Vegetation Solutions (2019) Reconnaissance Flora and Vegetation Survey of BIF Ridge and Mount Marven Dacian Gold Ltd Mt Morgans Gold Project. Report prepared for Dacian Gold Limited, by Native Vegetation Solutions, November 2019.
- Western Wildlife (2016) Dacian Gold Limited Mt Morgans Gold Project: Level 1 Vertebrate Fauna Survey March 2016. Report prepared for Dacian Gold Limited, by Western Wildlife, July 2016.

Western Wildlife (2020) Dacian Gold Limited Mt Morgans Gold Project: Phoenix Ridge and Mt Marven Report Level 1 Vertebrate Fauna Survey July 2019. Report prepared for Dacian Gold Limited, by Western Wildlife, February 2020.

5. Glossary

Acronyms:

ВоМ	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)

DoEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DoEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DoEE)
DWER	Department of Water and Environmental Regulation, Western Australia
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
TEC	Threatened Ecological Community

Definitions:

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

T <u>Threatened species:</u>

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.

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.