



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 9026/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Monument Murchison Proprietary Limited

1.3. Property details

Property: Mining Leases 51/116, 51/117, 51/177, 51/178, 51/252
Local Government Area: Shire of Meekatharra and the Shire of Cue
Colloquial name: Monument Murchison Gold Project Burnakura Operations

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 29 October 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 associations:

18: Low woodland; mulga (*Acacia aneura*); and

39: Shrublands; mulga scrub.

* Note: Less than 1% of the clearing permit boundary is mapped as Beard vegetation association 39.

A flora and vegetation survey conducted by Animal Plant Mineral Consulting (APM, 2014) over the application area identified the following nine vegetation types:

- AaFP: *Acacia aptaneura* mid-dense tree/shrubs over *Eremophila galeata* very sparse shrubs over *Eragrostis* sp. sparse grasses;
- AiFP: *Acacia incurvaneura* sparse tree/shrubs over *Eremophila galeata* very sparse shrubs over mixed sparse grasses;
- AayFP: *Acacia ayersiana* sparse to very sparse tree/shrubs over *Acacia grasbyi* very sparse shrubs over *Ptilotus drummondii* very sparse low shrubs over mixed sparse to isolated grasses;
- AsFP: *Acacia sibilans* very sparse shrubs over *Sclerolaena cuneata* sparse chenopod shrubs over *Enneapogon caerulescens* very sparse grasses;
- Sd/MeFP: Open Tall Shrubland of *Acacia acuminata* with an Open Mid Shrubland of *Dodonaea inaequifolia* and Sparse Low Shrubland of *Mirbelia microphylla* on upper steep slopes;
- AayDL: *Acacia ayersiana* mid-dense tree/shrubs over sparse mixed shrubs over sparse to mid-dense mixed grasses;
- AaDL: *Acacia aptaneura* mid-dense tree/shrubs over *Eremophila forsetii* sparse shrubs over *Aristida contorta* mid-dense grasses;
- Aa/AcDL: *Acacia caesaneura/A. leptocarpa* mid-dense tree/shrubs over very sparse mixed grasses; and
- ApH: *Acacia pruincarpa* mid-dense tree/shrubs over mixed chenopod shrubs.

Clearing Description Monument Murchison Gold Project Burnakura Operations
Monument Murchison Pty Ltd ('Monument Murchison') proposes to clear up to 300 hectares of native vegetation within a boundary of approximately 2,265.261 hectares, for the purpose of mineral production and associated activities. The project is located approximately 12 kilometres east of Cue, in the Shires of Cue and Meekatharra.

Vegetation Condition Very Good: Vegetation structure altered with obvious signs of disturbance (Keighery, 1994).
to
Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management (Keighery, 1994).

Comment Vegetation condition was determined by APM (2014) using the Keighery scale.

Monument Murchison submitted a Mining Proposal for recommencement of mining and mineral processing at their Burnakura Operations Gold Project (MP Reg. I.D. 61054). The project involves the redevelopment of a number of open cut pits, waste rock dumps, processing plant, tailings storage and associated infrastructure and roads. A clearing permit was granted for these activities in May 2015 (CPS 6499/1).

Monument did not commence mining under the approved Mining Proposal at the time and the clearing permit expired in May 2020. Plans to restart the Burnakura Operations Gold Project are now underway and this clearing permit application has been lodged to cover a scope which is almost identical to 6499/1.

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 is located within the Murchison Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The Murchison bioregion is characterised by low hills and mesas separated by flat colluvium and alluvial plains. Vegetation is dominated by Mulga Woodlands often rich in ephemerals, hummock grasslands, saltbush shrublands and Tecticornia shrublands (CALM, 2002).

A flora and vegetation survey was conducted by Animal Plant Mineral Consulting Pty Ltd ('APM') over the application area in October 2014 (APM, 2014). A total of 98 flora taxa (including subspecies and varieties) representing 15 families and 21 genera were recorded from the application area during the flora and vegetation survey (APM, 2014). The vegetation found in the application area is considered to be moderately diverse and regionally well represented (Stewart Garden, 2020).

According to available databases, 25 flora species of conservation significance have been recorded within a 40 kilometre radius of the application area (DBCA, 2007-; Stewart Garden, 2020). No Threatened or Priority Ecological Communities, Threatened or Priority flora or vegetation associations of restricted distribution have been recorded within the application area (GIS Database), or identified during the flora and vegetation survey (APM, 2014).

A total of five introduced flora species were recorded within the application area during the flora and vegetation survey (APM, 2014). These included *Acetosa vesicaria* (Ruby Dock), *Aerva javanica* (Kapok Bush), *Chenopodium murale* (Nettle-leaf Goosefoot), *Citrullus lanatus* (Pie Melon) and *Solanum nigrum* (Black Berry Nightshade). None of these introduced flora species are Declared Pests or listed as Weeds of National Significance (APM, 2014). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts on biological diversity from weeds may be minimised by the implementation of a weed management condition.

No significant fauna habitats were recorded within the application area during the fauna habitat assessment (APM, 2014). Based on database searches, 22 fauna species of conservation significance have been recorded within 70 kilometres of the application area. These species comprise 19 birds, one reptile and two invertebrates (DAWE, 2020a; Stewart Garden, 2020). Of these, only the Rainbow Bee-eater (*Merops ornatus*, Migratory) is considered likely to occur in the application area. Four other species of conservation significance have the potential to occur within the application area: *Falco peregrinus* (Peregrine Falcon, OS), *Apus pacificus* (Fork-tailed Swift, Migratory), *Ardeotis australis* (Australian Bustard, P4) and *Burhinus grallarius* (Bush Stone-curlew, P4) (Stewart Garden, 2020).

The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (Stewart Garden; 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 variance to this Principle.

Methodology APM (2014)
CALM (2002)
DAWE (2020a)
DBCA (2007-)
Stewart Garden (2020)

GIS Database:
- IBRA Australia

- Pre-European Vegetation
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers
- Threatened Fauna
- Threatened and Priority Flora

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

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

A fauna habitat field assessment was conducted by APM (2014) over the application area, during which the following three fauna habitats were recorded:

- *Open mulga tree/shrubland on plains*: Clay/loam plains with open mulga tree/shrubs which have thicket areas of denser mulga. Very little grass or herb cover and very little leaf litter due to intense cattle disturbance.
- *Drainage*: Incised minor drainage lines or localised surface patterns of overland flow. Shallow incised channels tend to form on plains with skeletal soils containing a high proportion of regolith. Dense vegetation of Acacia species. The vegetation is less dense where the drainage bisects the plains with shallow soils.
- *Alienated*: Areas exposed to previous mining activities, including; mining pits with steep sides and water at the bottom, waste rock dumps, roads, drill lines, brushpiles and buildings. The condition of the remaining vegetation community is completely degraded.

In terms of fauna habitat condition, most habitats were considered to be in good condition with patches of vegetation in degraded condition as a result of cattle pressure, mining activities and historical exploration (Stewart Garden, 2020). Due to the cattle disturbance of the ground cover, habitat value for ground dwelling fauna species has been vastly reduced, although the intact upper vegetation structure is still of value to bird species (Stewart Garden, 2020).

The Rainbow Bee-eater (*Merops ornatus*, Migratory) is likely to utilise drainage lines present within the application area, but is also regularly recorded in disturbed habitats including roadside vegetation and in quarries, mines or gravel pits, where they often breed (DAWE, 2020b). This species is widely distributed and is unlikely to be significantly impacted by the proposed clearing activities

Four other bird species of conservation significance have the potential to occur within the application area: *Falco peregrinus* (Peregrine Falcon, OS), *Apus pacificus* (Fork-tailed Swift, Migratory), *Ardeotis australis* (Australian Bustard, P4) and *Burhinus grallarius* (Bush Stone-curlew, P4). However, none are likely to be specifically dependant on the fauna habitats within the application area, due to their broad distribution and/or migratory and highly mobile habits.

No significant fauna habitats were recorded within the application area (APM, 2014). All described fauna habitats types identified are considered widespread within the region and not restricted to the application area (Stewart Garden, 2020). The application area is unlikely to represent significant habitat for indigenous fauna species.

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

Methodology APM (2014)
DAWE (2020b)
Stewart Garden (2020)

GIS Database:
- Imagery
- 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 (rare) flora within the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (APM, 2014).

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

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

Methodology APM (2014)

Stewart Garden (2020)

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).

The flora and vegetation survey conducted by APM over the application area did not record any TECs (APM, 2014).

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

Methodology APM (2014)

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 Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). Approximately 99% of the Pre-European vegetation still exists in the IBRA Murchison Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 18: Low woodland; mulga (*Acacia aneura*); and 39: Shrublands; mulga scrub (GIS Database). Approximately 99% of Beard vegetation associations 18 and 39 remain at the state and bioregional level (Government of Western Australia, 2019).

Therefore, the area proposed to be cleared does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Lands
IBRA Bioregion - Murchison	28,120,586	28,044,823	~99	Least Concern	7.78
Beard vegetation associations - State					
18	19,892,306	19,843,148	~99	Least Concern	6.62
39	6,613,567	6,602,578	~99	Least Concern	12.02
Beard vegetation associations - Bioregion					
18	12,403,172	12,363,252	~99	Least Concern	4.96
39	1,148,400	1,138,064	~99	Least Concern	3.56

* 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 water bodies or watercourses within the application area (GIS Database).

There are two minor non-perennial drainage lines that intersect the application area (GIS Database). The surface flows of these drainage lines are likely to be dry most of the year therefore it is not expected the proposed clearing will have a detrimental effect on native vegetation growing in, or in association with a watercourse or wetland (GIS Database).

Based on the above, the proposed clearing is at variance to this Principle. However the vegetation survey of the application area did not identify any riparian vegetation (APM, 2014), and impacts from the proposed clearing to vegetation growing in association with watercourses is likely to be minimal.

Methodology APM (2014)

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 is located within the Challenge, Jundee and Wiluna land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

The Challenge land system is described as gently sloping gritty and sandy-surfaced plains with granite outcrops and minor breakaways, supporting mulga and some halophytic shrublands. This system is not normally susceptible to accelerated erosion except on alluvial foot slopes and drainage floors (Curry et al., 1994).

The Jundee land system consists of hardpan wash plains with variable dark gravelly mantling and weakly grooved vegetation and minor sandy banks supporting scattered mulga shrublands. The concentrated drainage zones are mildly susceptible to accelerated erosion when degraded, whilst the hardpan plains are otherwise not normally susceptible to erosion unless severely degraded (Curry et al., 1994).

The Wiluna land system is described as low greenstone hills with occasional lateritic breakaways and broad stony slopes, lower saline stony plains and broad drainage tracts; supports sparse mulga shrublands with patches of halophytic shrubs. The system is moderately susceptible to accelerated erosion when degraded, showing extensive disturbance and localised erosion as a result of mining activities (Curry et al., 1994).

Land degradation is widespread in the Murchison region and is mainly a result of overgrazing and the loss of perennial vegetation which has led to widespread soil erosion (Stewart Garden, 2020). The potential for the proposed clearing to create further soil erosion may be minimised by the implementation of a staged clearing condition.

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

**Methodology Curry et al. (1994)
Stewart Garden (2020)**

GIS Database:

- Landsystem Rangelands
- 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 are the Wanjarri Nature Reserve, which lies approximately 212 kilometres east of the application area (GIS Database).

The proposed clearing is not likely to impact the environmental values of any conservation areas.

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

Methodology GIS Database:
- DPaW Tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

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

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002). The proposed clearing is unlikely to result in significant changes to surface water flows.

Groundwater salinity within the application area is between 1,000 and 3,000 milligrams/Litre Total Dissolved Solids (TDS) which is considered to be relatively fresh to brackish (GIS Database). The proposed clearing is not likely to cause groundwater or surface water quality within the application area to alter significantly.

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

Methodology CALM (2002)

GIS Database:
- Groundwater salinity, State wide
- Hydrography, Lakes
- 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 Murchison region is mostly hot and dry, with highly variable rainfall throughout the year. The region has a semi-arid climate with hot summers and mild winters and an average rainfall of 300 millimetres a year (CALM, 2002). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2020).

There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

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

Methodology CALM (2002)

GIS Database:
- Hydrography, lakes
- Hydrography, linear

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

Comments The clearing permit application was advertised on 14 September 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 (WC1999/046) over the area under application (DPLH, 2020). This claim has been registered with the National Native Title Tribunal 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 is one registered Aboriginal Site 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

- APM (2014) Level One Biological Survey – Burnakura Operation, Murchison, Western Australia Tenement M51/116, M51/117, M51/177, M51/178, Prepared for Monument Murchison Pty Ltd, by Animal Plant Mineral Pty Ltd, November 2014.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DAWE (2020a) EPBC Act Protected Matters Search Tool. Department of Agriculture, Water and the Environment. <https://www.environment.gov.au/epbc/protected-matters-search-tool> (Accessed 26 October 2020).
- DAWE (2020b) *Merops ornatus* in Species Profile and Threats Database, Department of the Environment, Canberra <http://www.environment.gov.au/> (Accessed 26 October 2020)
- DBCA (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Biodiversity, Conservation and Attractions. <https://naturemap.dbca.wa.gov.au/> (Accessed 26 October 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.
- DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 7 October 2020).
- 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.
- P.J. Curry, A.L. Payne, K.A. Leighton, P. Hennig and D.A. Blood (1994) An inventory and condition survey of Murchison River Catchment, Western Australia. Technical Bulletin 84. Department of Agriculture and Food, Perth, Western Australia.
- Stewart Garden (2020) Monument Murchison Gold Project Burnakura Operations, Native Vegetation Clearing Permit Support Information. Prepared for Monument Murchison Pty Ltd, by Stewart Garden Pty Ltd, August 2020.

5. Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DAWE	Department of Agriculture, Water and the Environment, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
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)
DoE	Department of the Environment, Australian Government (now DAWE)
DoEE	Department of the Environment and Energy (now DAWE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora

DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DAWE)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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	<i>Rights in Water and Irrigation Act 1914</i> , 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 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.