



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7246/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Altura Lithium Operations Pty Ltd

1.3. Property details

Property: Mining Lease 45/1230
Mining Lease 45/1231
Mining Lease 45/1260
Miscellaneous Licence 45/400
Miscellaneous Licence 45/401
Miscellaneous Licence 45/404
Miscellaneous Licence 45/416

Local Government Area: Shire of East Pilbara

Colloquial name: Pilgangoora Lithium Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 5 December 2019

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:
82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*;
93: Hummock grasslands, shrub steppe; kanji over soft spinifex; and
619: Medium woodland; river gum (*Eucalyptus camaldulensis*) (GIS Database).

A level 2 flora and vegetation survey was undertaken over part of the application area by Natural Area (2016a) during 11 to 22 March 2016. A total of five vegetation communities were identified within M 45/1230 and M 45/1231:

1. *Triodia wiseana* Hummock Grassland on low hills: Spinifex Grassland dominated by *Triodia wiseana*, with small patches of *Triodia epactia* towards the base of hillslopes. *Acacia inaequilatera* and *Acacia acradenia* are found throughout this vegetation type in low densities;
2. *Triodia epactia* and *Triodia wiseana* Hummock Grasslands on stony plains: A Hummock Grassland dominated by *Triodia epactia* and *Triodia wiseana* with scattered patches of *Triodia pungens* in seasonally wet areas. This vegetation type was burnt prior to 2013, but has since regenerated. Scattered *Acacia inaequilatera* occur throughout this vegetation type; annuals such as *Goodenia muelleriana*, *Ptilotus axillaris* and *Ptilotus clementii* are found here after seasonal rainfall;
3. *Eucalyptus camaldulensis* Open Woodland along major drainage lines: Open Woodland of *Eucalyptus camaldulensis* with a reduced understorey of *Marsilea exarata*, *Pluchea tetranthera* and non-native Buffel Grass (*Cenchrus ciliaris*). This vegetation type is located along major drainage lines and is characterised by clayey loam soils with a thick layer of leaf litter produced from the *E. camaldulensis*;
4. *Acacia acradenia* and *Petalostylis labicheoides* Open Shrubland over *Triodia pungens* Hummock Grassland along minor drainage lines: Low Open Scrubland of *Acacia acradenia*, *Acacia inaequilatera* and *Petalostylis labicheoides* over a dense Spinifex Grassland of *Triodia pungens*, with *Triodia wiseana* and sparse *Corymbia hamersleyana* trees found along the edges of the drainage line. This vegetation type was found along minor drainage lines with clayey loam soils; and
5. *Acacia* tall Open Shrubland over *Triodia wiseana* Hummock Grasslands: Tall Open *Acacia* Shrubland dominated by *Acacia acradenia* and *Acacia inaequilatera* over a *Triodia wiseana* Hummock Grassland,

with isolated patches of *Triodia longiceps* on hill slopes. Shrubs scattered throughout this vegetation type include *Scaevola pulchella*, *Corchorus parviflorus*, *Euphorbia tannensis* subsp. *eremophila*, *Grevillea wickhamii* and the occasional *Hakea chordophylla*. This area is characterised by disturbance associated with exploration mining; large soil deposits have been colonised by opportunistic species such as *Acacia acradenia*.

A desktop flora assessment for the amendment area (CPS 7246/2) was undertaken over the access road route to and from the project area (L 45/400 and L 45/405) by Natural Area (2016b). The desktop review assessed that the vegetation types within the 2.6 kilometre new road section that will extend from the north-western portion of the site are expected to be similar to those identified during the flora survey above by Natural Area (2016a), particularly those dominated by *Triodia* or *Acacia* species. *Triodia* grasslands are expected in drier areas, with *Acacia* shrublands around creek lines. The vegetation types along the existing roads included *Acacia* shrublands along the Wodgina Road and *Acacia* shrubland over *Triodia* grassland (Natural Area, 2016b).

A reconnaissance flora and vegetation assessment was undertaken over the majority of the amendment area (CPS 7246/3) from 14 to 16 May 2018 (ecologia, 2018). Six vegetation units were described within the area:

S1: *Acacia inaequilatera* and *Acacia ancistrocarpa* mid open shrubland over *Triodia longiceps* (\pm *T. lanigera*, *T. brizoides*, *T. epactia*) open hummock grassland;

S2: *Neptunia dimorphantha* and *Sida fibulifera* low open shrubland over *Eriachne benthamii* and *Cynodon convergens* open grassland.

S3: *Acacia acradenia*, *A. ancistrocarpa*, *A. tumida* var. *pilbarensis*, and *Petalostylis labicheoides* mid open shrubland over *Triodia epactia* (\pm *T. wiseana*) hummock grassland.

S4: *Acacia inaequilatera* sparse mid shrubland over *Triodia chichesterensis* (P3) open hummock grassland.

W1: *Eucalyptus victrix* and *Corymbia hamersleyana* low open woodland over *Acacia coleii* mid sparse shrubland over *Triodia epactia* sparse hummock grassland.

W2: *Corymbia hamersleyana* low open woodland over *Acacia acradenia* and *A. ancistrocarpa* mid sparse shrubland over *Triodia epactia* (\pm *T. wiseana*, *T. longiceps*) open hummock grassland.

Clearing Description

Pilgangoora Lithium Project.

Altura Lithium Operations Pty Ltd proposes to clear up to 454.58 hectares of native vegetation within a boundary of approximately 974.7 hectares, for the purpose of mineral production. The project is located approximately 89 kilometres east of Marble Bar, within the Shire of East Pilbara.

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

Clearing permit CPS 7246/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 20 October 2016 and was valid from 12 November 2016 to 12 November 2023. The permit authorised the clearing of up to 374.58 hectares of native vegetation within a boundary of approximately 374.58 hectares, for the purpose of mineral production.

CPS 7246/2 was granted on 1 June 2017, amending the permit to increase the clearing boundary from 374.58 hectares to 542.6 hectares. The area of clearing authorised remained unchanged.

On 23 October 2019, the Permit Holder applied to amend CPS 7246/2 to increase the clearing area from 374.58 hectares to 454.58 hectares (80 hectares), increase the permit boundary from 542.6 hectares to 974.7 hectares, and change the Permit Holder name from Altura Exploration Pty Ltd to Altura Lithium Operations Pty Ltd. The Permit Holder has also requested for Mining Lease 45/1260, Miscellaneous Licence 45/401 and Miscellaneous Licence 45/416 to be added to the tenure on the Permit.

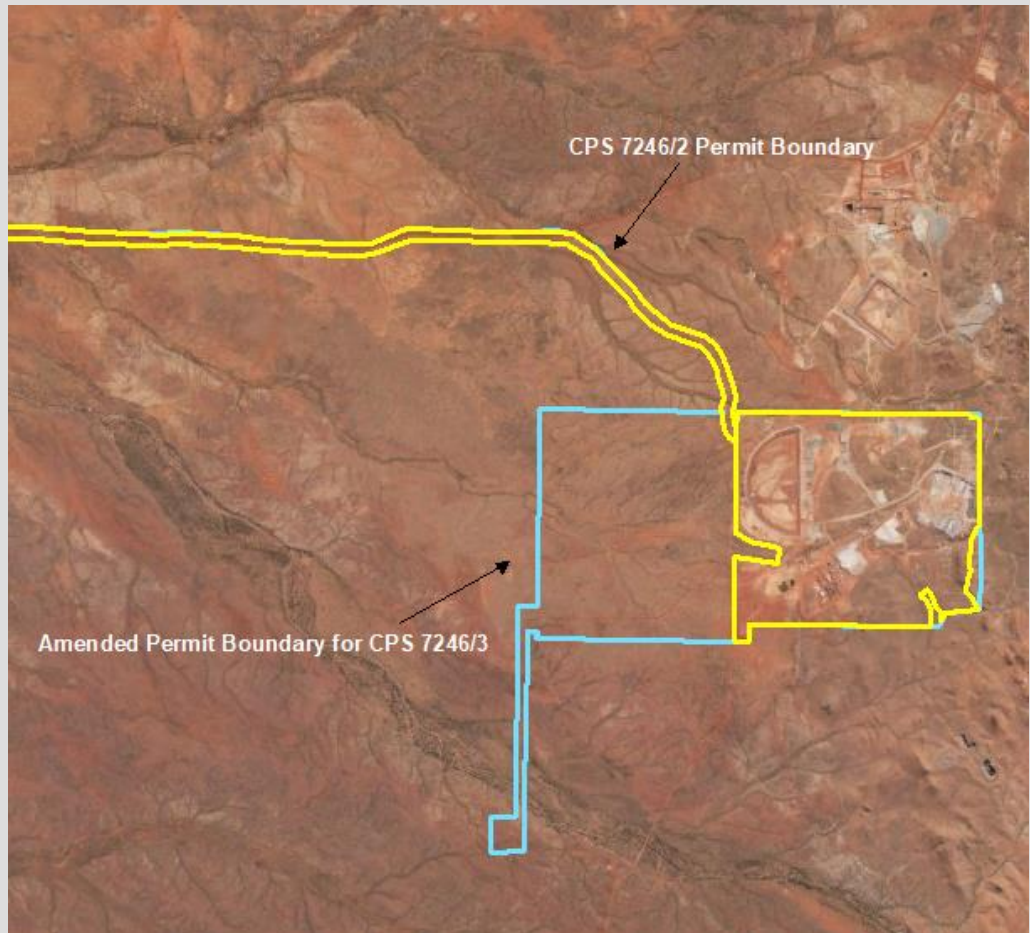


Figure 1: Original clearing permit boundary (yellow area) and proposed amended permit boundary (blue area).

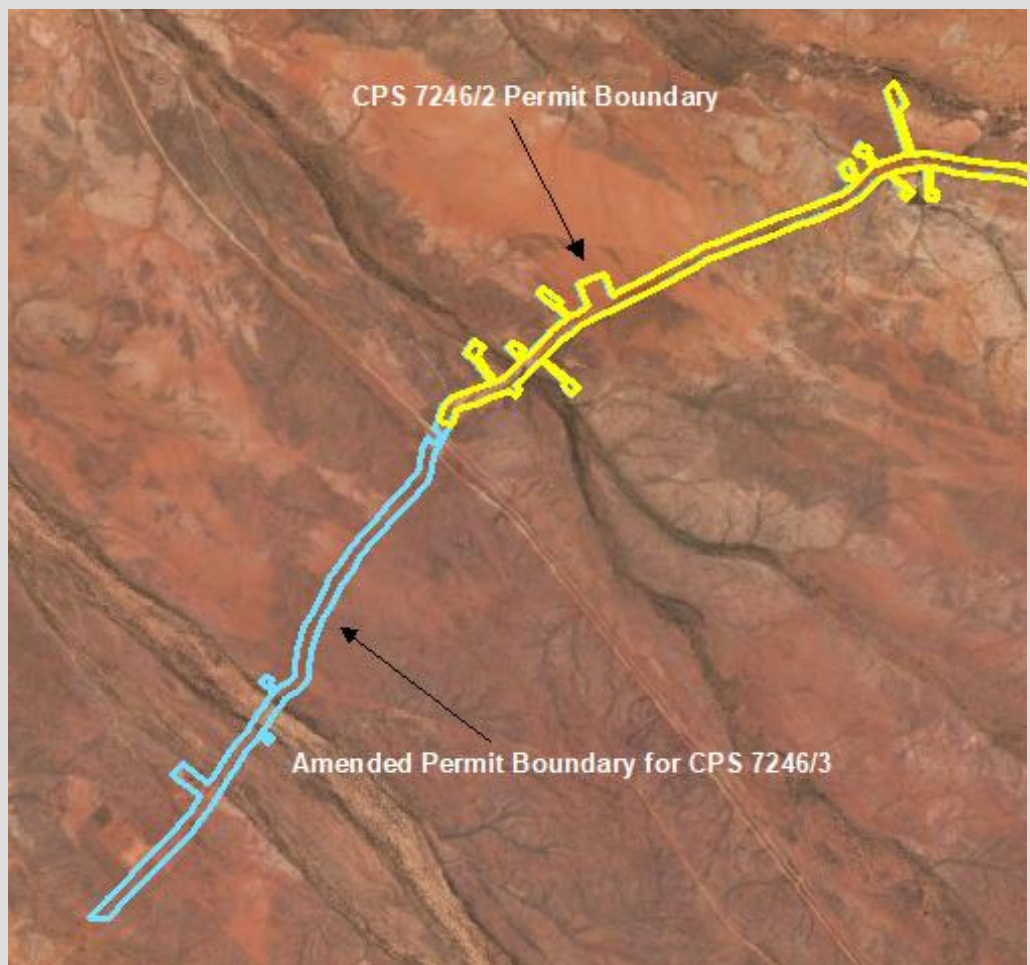


Figure 2: Original clearing permit boundary (yellow area) and proposed amended permit boundary (blue area).

3. Assessment of application against Clearing Principles

Comments

The Permit Holder has applied to increase the area authorised to clear, increase the permit boundary and add new tenure to the Permit. Altura Exploration Pty Ltd underwent a name change to Altura Lithium Operations Pty Ltd, therefore the Permit Holder name will be updated to reflect the change.

A reconnaissance flora and vegetation survey was undertaken over the majority of the amendment area (Mining Lease 45/1260), but excluded the additional Miscellaneous licences. The survey identified two Priority 3 Flora species within the amendment area: *Euphorbia clementii* and *Triodia chichesterensis* (ecologia, 2018). *Euphorbia clementii* was recorded from 27 locations (approximately 250 individuals) within the amendment area, where it was found almost exclusively on vehicle tracks and windrows (ecologia, 2018). *Triodia chichesterensis* was recorded from the eastern border of the amendment area where it formed a dominant component of the vegetation community present on stony quartzite plains (ecologica, 2018). ecologia (2018) advises that both species are well represented outside of the amendment area. The proposed clearing is unlikely to impact the conservation significance of these species.

ecologia (2018) recorded six vegetation units within the amendment area. The vegetation unit S4 may be considered locally significant as it supports *Triodia chichesterensis*, however it is restricted to the eastern border of the application area, and extends outside the boundary into the local area (ecologica, 2018; GIS Database). The W1 vegetation unit supports *Eucalyptus victrix*, which is a facultative phreatophyte (potentially groundwater dependant in situations where surface water is unavailable) (ecologia, 2018). This vegetation unit is located outside the amendment area (GIS Database). Potential impacts to the W1 vegetation unit as a result of the proposed clearing may be minimised by the existing watercourse management condition.

No known Threatened Flora species, Threatened or Priority Ecological Communities were identified within the amendment boundary (ecologia, 2018; GIS Database).

A Level 1 terrestrial vertebrate fauna and fauna habitat assessment over part of amendment area was conducted concurrently with the reconnaissance flora and vegetation (ecologia, 2018). There were two broad faunal habitats identified within the amendment area; Stony plains and Minor Drainage Lines (ecologia, 2018).

No conservation significant fauna were recorded within the amendment boundary, however one disused mound of the Western Pebble-mound Mouse (Priority 4) was identified (ecologia, 2018). Suitable habitat for the Western Pebble-mound Mouse occurs within the Stony plains faunal habitat within the amendment area (ecologia, 2018), however the proposed clearing is unlikely to impact the conservation significance of this species given that suitable habitat is found extensively outside the amendment area (GIS Database). The Pilbara Leaf-nosed Bat (VU) may forage and disperse along Minor Drainage Line habitat, and the Peregrine Falcon (OS) may utilise the amendment area as part of a larger foraging area (ecologia, 2018). The amendment area does not contain habitats or faunal assemblages that are ecologically significant (GIS Database).

There are no watercourses or conservation areas within the additional area (GIS Database). The proposed amendment is not likely to have an impact on either the surface or groundwater quality in the local region, nor will it exacerbate the incidence or intensity of flooding in the area.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O 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 7246/1 and 7246/2.

Methodology ecologia (2018)

GIS Database:

- DPaW Tenure
- Hydrography, Lakes
- Hydrography, Linear
- Imagery
- Landsystem Rangelands
- Public Drinking Water Source Areas
- 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 is one native title claim over the area under application (DPLH, 2019). 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, 2019). 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.

The amendment application was advertised on 11 November 2019 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

Methodology DPLH (2019)

4. References

- DPLH (2019) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage.
<http://maps.daa.wa.gov.au/AHIS/> (Accessed 18 November 2019).
- ecologia (2018) Altura Mining Limited Pilgangoora Lithium Project – Mining Lease M45/1260, Level 1 Fauna And Reconnaissance Flora And Vegetation Assessment. Prepared for Altura Mining Limited, by ecologia Environment, June 2018.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Natural Area (2016a) Flora, Vegetation and Fauna Survey Report - Pilgangoora Lithium Project. Report prepared for Altura Mining Ltd, by Natural Area Consulting Management Services, June 2016.
- Natural Area (2016b) Memo - Desktop assessment of road route to/from project. Memo prepared for Altura Mining Ltd, by Natural Area Consulting Management Services, June 2016.

5. Glossary

Acronyms:

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)
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	<i>Environmental Protection Act 1986</i> , 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

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.

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.