

## 1. Application details and outcomes

### 1.1. Permit application details

Permit number:	7422/5
Permit type:	Purpose Permit
Applicant name:	Northern Star (Bronzewing) Pty Ltd
Application received:	15 November 2024
Application area:	600 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 53/1099 Miscellaneous Licences 53/203, 53/204, 53/206
Location (LGA area):	Shire of Wiluna
Colloquial name:	Julius Project

### 1.2. Description of clearing activities

Northern Star (Bronzewing) Pty Ltd proposes to clear up to 600 hectares of native vegetation within a boundary of approximately 878.5 hectares, for the purpose of mining related infrastructure (Northern Star, 2024a). The project is located approximately 70 kilometres southwest of Wiluna, within the Shire of Wiluna (GIS Database).

Clearing permit CPS 7422/1 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 March 2021. The permit authorised the clearing of up to 406 hectares of native vegetation within a boundary of approximately 406 hectares, for the purpose of mineral production.

CPS 7422/2 was granted on 22 February 2018, amending the permit to increase the amount of clearing authorised to 486 hectares, and increase the permit boundary to approximately 534 hectares. The amendment was to allow for the construction of a haul road. The purpose for which clearing may be done was amended to 'mineral production and associated activities'. Miscellaneous Licences 53/204 and 53/206 were also added to the permit.

CPS 7422/3 was granted on 26 November 2020 to extend the permit duration by five years, and to update the Permit Holder name from Echo Resources Limited to Northern Star (Bronzewing) Pty Ltd.

CPS 7422/4 was granted on 28 April 2022, amending the permit to increase the amount of authorised clearing to 600 hectares and to increase the permit boundary to approximately 878.5 hectares. An area of haul road on Miscellaneous Licence 53/203 was removed from the application area as no clearing had been done and it was no longer required for the project.

The application to amend CPS 7422/4 is to extend the permit duration by an additional five years, no other changes to the permit were requested. According to the latest Annual Clearing Report, a total of 225.51 hectares of native vegetation has been cleared under this permit (Northern Star, 2024b).

### 1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	25 February 2025
Decision area:	600 hectares of native vegetation

### 1.4. Reasons for decision

This clearing permit amendment application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advertised the application for a public comment for a period of seven days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix D), supporting information provided by the applicant including the results of a flora and vegetation survey (Botanica, 2016; 2017), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values; and
- potential land degradation in the form of water erosion.

The assessment has not changed since the assessment for CPS 7422/4. The Delegated Officer determined that the proposed extension of duration is not likely to lead to an unacceptable risk to environmental values. The Delegated Officer decided to grant a clearing permit with the existing permit conditions with the addition of the directional clearing condition to manage potential fauna fatality and a vegetation management condition, requiring the permit holder to avoid riparian vegetation where practicable and to maintain existing surface water flow.

## 2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Mining Act 1978* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016b)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016a)

## 3. Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

### 3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed from the Clearing Permit Decision Report CPS 7422/4. The request to extend the duration of the permit is not likely to significantly increase the environmental impacts and the proposed clearing can be managed by the current permit conditions with the addition of the directional clearing condition to manage potential fauna fatality and a vegetation management condition, requiring the permit holder to avoid riparian vegetation where practicable and to maintain existing surface water flow. Due to the age of the biological surveys (approximately nine years), updated biological surveys reflecting the current state of the application area will be required prior to making any further amendments to this clearing permit.

### 3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 11 February 2025 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are three native title claims over the area under application (DPLH, 2025). These claims have been determined by the Federal Court on behalf of the claimant groups. 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, 2025). 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.

Other relevant authorisations required for the proposed land use include:

- A Mining Proposal / Mine Closure Plan approved under the *Mining Act 1978*.

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.

**End**

## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	The application area is located approximately 70 kilometres southeast of Wiluna within the East Murchison subregion of the Murchison Interim Biogeographic Regionalisation for Australia bioregion (GIS Database). The area to be cleared is part of an expansive tract of vegetation in the extensive land use zone of Western Australia (GIS Database).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).
Conservation areas	The closest conservation area is the Wanjarri Nature Reserve, which is located approximately 26 kilometres southwest of the application area (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation associations:</p> <ul style="list-style-type: none"> <li>• 18: Low woodland; mulga (<i>Acacia aneura</i>);</li> <li>• 29: Sparse low woodland; mulga, discontinuous in scattered groups; and</li> <li>• 39: Shrublands; mulga scrub.</li> </ul> <p>Two flora and vegetation surveys have been conducted over different sections of the application area by Botanica Consulting (Botanica) during May 2016 and February 2017. The following vegetation associations were recorded within the application area (Botanica, 2016; 2017):</p> <ul style="list-style-type: none"> <li>• <b>CLP-AFW1</b>: Low woodland of <i>Acacia incurvaneura</i> over low scrub of <i>Eremophila linearis</i>/<i>Senna</i> sp. Meekatharra (E. Bailey 1-26) and dwarf scrub of <i>Maireana triptera</i> on clay-loam plain/ stony flat.</li> <li>• <b>CLP-AFW2</b>: Open low woodland of <i>Acacia pruniocarpa</i> over mid sparse shrubland of <i>Eremophila fraseri</i>/<i>Eremophila paisleyi</i> and low open tussock grassland of <i>Eragrostis eriopoda</i> on clay-loam plain.</li> <li>• <b>SLP-AFW1</b>: Low woodland of <i>Acacia caesaneura</i>/<i>A. incurvaneura</i> over low scrub of <i>Eremophila</i> spp. and low grass of <i>Eragrostis eriopoda</i>/ mid-dense hummock grass of <i>Triodia irritans</i> on sand-loam plain.</li> <li>• <b>DD-AFW1</b>: Open forest of <i>Acacia incurvaneura</i> over tall open shrubland of <i>Acacia ramulosa</i> var. <i>ramulosa</i> and low tussock grassland of <i>Eragrostis kennedyae</i> in drainage depression.</li> <li>• <b>QRP-AFW1</b>: Low woodland of <i>Acacia incurvaneura</i> over mid open shrubland of <i>Senna</i> sp. Meekatharra (E. Bailey 1-26) and low open tussock grassland of <i>Eragrostis eriopoda</i> on quartz-rocky plain.</li> <li>• <b>QRP-AFW2</b>: Low woodland of <i>Acacia incurvaneura</i> over mid open shrubland of <i>Senna</i> sp. Meekatharra (E. Bailey 1-26) and low open shrubland of <i>Ptilotus obovatus</i> on quartz-rocky plain.</li> <li>• <b>RH-AFW1</b>: Low woodland of <i>Acacia incurvaneura</i>/<i>A. pruniocarpa</i> over mid open shrubland of <i>Scaevola spinescens</i> and low open tussock grassland of <i>Eriachne mucronata</i>/<i>Eragrostis eriopoda</i> on rocky hillslope.</li> <li>• <b>RH-AFW2</b>: Low woodland of <i>Acacia balsamea</i> over mid open shrubland of <i>Senna</i> sp. Meekatharra (E. Bailey 1-26) and low open shrubland of <i>Ptilotus obovatus</i>/<i>Solanum lasiophyllum</i> on rocky hillslope.</li> </ul>
Vegetation condition	<p>The vegetation surveys by Botanica (2016; 2017) indicate the vegetation within the proposed clearing area is in very good to good (Trudgen 1991) condition.</p> <p>The full Trudgen (1991) condition rating scale is provided in Appendix C.</p>
Climate and landform	The application area is mapped within elevations of 500-550 metres AHD (GIS Database). The annual average rainfall (Leinster) is 247.7 millimetres (BoM, 2025).
Soil description	The soil within the application area has been mapped as the Fa7 soil unit (GIS Database). The Fa7 soil unit is described as greenstone hills and low ranges with some slate and basalt (Northcote et al., 1960-68). Dominant soils are shallow earthy loams on the steep slopes while overlying red-brown hardpan occur on the stony pediments (Northcote et al., 1960-68).
Land degradation risk	The application area has been mapped as the Ararak, Barwidgee, Tiger, Trennaman, Violet, Wiluna, and Yanganoo land systems (GIS Database).

Characteristic	Details
Waterbodies	The desktop assessment and aerial imagery indicated that several minor, non-perennial watercourses transect the area proposed to be cleared (GIS Database).
Hydrogeography	The application area is not within any public drinking water supply areas (GIS Database). The mapped groundwater salinity is 3,000-7,000 milligrams per litre total dissolved solids which is described as saline (GIS Database).
Flora	There have been no previous records of Threatened or Priority flora within the application area (Botanica, 2016; 2017; GIS Database). There are records of four Priority species within the local area (20 kilometre radius) (see A.2).
Ecological communities	There are no mapped Priority or Threatened Ecological Communities within the application area (GIS Database). The closest TEC or PEC is the 'Barwidgee calcrete groundwater assemblage type on Carey paleodrainage on Barwidgee Station' PEC approximately nine kilometres south of the application area (GIS Database).
Fauna	According to available databases, there are ten records of conservation significant fauna species within the local area (20 kilometre radius) all of which are the brush-tailed mulgara ( <i>Dasyercus blythi</i> – Priority 4).

## A.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix D.1) the following conservation significant flora have been recorded in the local area (20 kilometres).

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)
<i>Cratystylis centralis</i>	Priority 3	Y	Y	Y	10
<i>Eremophila pungens</i>	Priority 4	Y	Y	Y	5
<i>Tecticornia cymbiformis</i>	Priority 3	N	N	N	7
<i>Tecticornia enodis</i>	Priority 1	N	N	N	19

## Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>There are no records of any Threatened or Priority flora within the application area (Botanica, 2016, 2017; GIS Database). The vegetation within the application area is not likely to contain a high level of diversity and is common and widespread in the local area (20 kilometres). There is not likely to be a diverse range of fauna habitats which would support a diverse faunal assemblage.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 7422/4)</p>	No
<p><u>Principle (b):</u> "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."</p> <p><u>Assessment:</u></p> <p>No fauna species or evidence of conservation significance have been recorded within the application area (Botanica 2016; 2017; GIS Database). The habitats present have the potential to be utilised by the Malleefowl (<i>Leipoa ocellata</i> – Vulnerable), Peregrine Falcon (<i>Falco peregrinus</i> – Other Specially protected), Fork Tailed Swift (<i>Apus pacificus</i> - Migratory) and the Brush-tailed mulgara (<i>Dasyercus blythi</i> – Priority 4).</p> <p>The fauna habitats present within the application area appear to be widespread and common in surrounding areas. The habitat within the additional areas is similar to the habitats within the previous permit boundary (Botanica, 2016; 2017). There are no habitat types present within the application area that would be considered necessary for the continued survival of local fauna species, including species of conservation significance. The proposed clearing is not anticipated to impact on the conservation status of any of the abovementioned fauna species, known from the local area. Potential impacts to fauna may be managed by the implementation of a directional</p>	<p>Not likely to be at variance</p> <p>(as per CPS 7422/4)</p>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
clearing condition on the permit, requiring the clearing to be conducted from one direction towards adjacent vegetation to allow fauna to move ahead.		
<p><u>Principle (c):</u> <i>"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</i></p> <p><u>Assessment:</u></p> <p>There are no known records of Threatened flora within the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (Botanica, 2016; 2017).</p> <p>Flora species <i>Seringia exastia</i>, previously listed as Threatened, was recorded within five kilometres of the application area (GIS Database). A taxonomic study concluded that <i>Seringia exastia</i> is the same species as <i>Seringia elliptica</i> and has since been delisted (Binks et al., 2020; Western Australian Herbarium, 1998-).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 7422/4)</p>	<p>No</p>
<p><u>Principle (d):</u> <i>"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."</i></p> <p><u>Assessment:</u></p> <p>There are no known Threatened Ecological Communities (TECs) located within the application area (GIS Database). The flora and vegetation surveys over the application area have not identified any TECs (Botanica, 2016; 2017).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 7422/4)</p>	<p>No</p>
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."</i></p> <p><u>Assessment:</u></p> <p>The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99.73% of the pre-European vegetation still exists in the Murchison Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 18, 29 and 39 (GIS Database). These vegetation associations have not been extensively cleared as over 99% of the pre-European extent of these vegetation associations remain uncleared at both the state and bioregional level (Government of Western Australia, 2019). The application area does not contain any remnants nor does it form part of any remnants in the local area (GIS Database).</p>	<p>Not at variance</p> <p>(as per CPS 7422/4)</p>	<p>No</p>
<p><u>Principle (h):</u> <i>"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></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 7422/4)</p>	<p>No</p>
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."</i></p> <p><u>Assessment:</u></p> <p>There are several minor ephemeral drainage lines which intersect the application area (GIS Database). These drainage lines are common in the local area (20 kilometre radius) and the proposed clearing is not likely to have a significant impact on riparian vegetation and surface water flow on a broader scale. Potential impacts to the ephemeral drainage lines can be managed by implementing a vegetation management condition on the permit, requiring the permit holder to avoid riparian vegetation where practicable and to maintain existing surface water flows.</p>	<p>At variance</p> <p>(as per CPS 7422/4)</p>	<p>No</p>
<p><u>Principle (g):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</i></p> <p><u>Assessment:</u></p> <p>The mapped land systems are generally not susceptible to erosion (Pringle et al., 1994). The Violet land system becomes moderately susceptible to water erosion in areas where the soil surface has been disturbed (Pringle et al., 1994). The majority of</p>	<p>May be at variance</p> <p>(as per CPS 7422/4)</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
the additional areas included in this amendment are mapped as the Violet land system (GIS Database). A staged clearing condition is currently on the permit requiring activities are undertaken within three months following any clearing. Potential impacts from erosion may be minimised by the continued implementation of this condition.		
<p><u>Principle (i):</u> "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."</p> <p><u>Assessment:</u></p> <p>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. The proposed clearing is unlikely to result in significant changes to surface water flows or to cause deterioration in the quality of underground water, however potential impacts may be managed by implementing a condition on the permit, requiring the permit holder to maintain any existing surface water flows.</p>	Not likely to be at variance  (as per CPS 7422/4)	No
<p><u>Principle (j):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."</p> <p><u>Assessment:</u></p> <p>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.</p>	Not likely to be at variance  (as per CPS 7422/4)	No

### Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

#### Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

### Appendix D. Sources of information

#### D.1. GIS databases

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

CPS 7422/5

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened and Priority Flora (TPFL)
- Threatened and Priority Flora (WAHerb)
- Threatened and Priority Fauna
- Threatened and Priority Ecological Communities
- Threatened and Priority Ecological Communities (Buffers)

## D.2. References

- Binks, R.M., Wilkins, C.F., Markey, A.S., Lyons, M.N. and Byrne, M. (2020) Genomic data and morphological re-assessment reveals synonymy and hybridisation among *Seringia* taxa (Lasiopetaleae, Malvaceae) in remote north-western Australia, TAXON, 69: 307-320 <https://doi.org/10.1002/tax.12233>
- Botanica (2016) Julius Project Level 1 Flora and Fauna Survey. Report prepared for Echo Resources Limited by Botanica Consulting, July 2016.
- Botanica (2017) Level 1 Flora and Fauna Survey of the Julius Project Proposed Haul Road (L53/206). Report prepared for Echo Resources Limited by Botanica Consulting, April 2017.
- Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Weather Station: Leinster Aero (012314). Bureau of Meteorology. <https://reg.bom.gov.au/climate/data/> (Accessed 6 February 2025).
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- Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. <https://www.wa.gov.au/system/files/2023-06/procedure-native-vegetation-clearing-permits.pdf>
- Environmental Protection Authority (EPA) (2016a) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. [http://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey\\_Dec13.pdf](http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf)
- Environmental Protection Authority (EPA) (2016b) Technical Guidance – Terrestrial Fauna Surveys. [https://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf](https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf)
- 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. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Pringle, H.J.R., Van Vreeswyk, A.M.E., and Gilligan, S.A. (1994) An Inventory and Condition Survey of the north-eastern Goldfields, Western Australia. Department of Agriculture, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- Northern Star (Bronzewing) Pty Ltd (Northern Star) (2024a) Clearing permit application form, CPS 7422/5, received 15 November 2024.
- Northern Star (Bronzewing) Pty Ltd (Northern Star) (2024b) Julius' CPS 7422/4 Annual Report. Unpublished report prepared by Northern Star (Bronzewing) Pty Ltd, July 2024.



Trudgen, M.E. (1991) Vegetation condition scale in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 6 February 2025).

## 4. Glossary

### Acronyms:

<b>BC Act</b>	<i>Biodiversity Conservation Act 2016</i> , Western Australia
<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia (now DPLH)
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia (now DPIRD)
<b>DCCEEW</b>	Department of Climate Change, Energy, the Environment and Water, Australian Government
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions, Western Australia
<b>DEMIRS</b>	Department of Energy, Mines, Industry Regulation and Safety
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DEMIRS)
<b>DoEE</b>	Department of the Environment and Energy (now DCCEEW)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DPIRD</b>	Department of Primary Industries and Regional Development, Western Australia
<b>DPLH</b>	Department of Planning, Lands and Heritage, Western Australia
<b>DRF</b>	Declared Rare Flora (now known as Threatened Flora)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

### Definitions:

{DBCA (2023) 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 the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

**Threatened flora** is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of [Ministerial Guideline Number 1](#) and [Ministerial Guideline Number 2](#) that adopts the use of the International Union for Conservation of Nature (IUCN) [Red List of Threatened Species Categories and Criteria](#), and is based on the national distribution of the species.

#### **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.

#### **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.

**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.

**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).

**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.

**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).

Migratory species include birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) or 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.

**CD**

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

Species of special conservation need that are 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).

Currently only fauna are listed as species of special conservation interest.

**OS**

**Other specially protected species**

Species 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).

Currently only fauna are listed as species otherwise in need of special protection.

**P**

**Priority species:**

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department’s website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey 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 prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

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

Assessment of priority status 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 – known from few locations, none on conservation lands**  
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, for example, 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 for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

**P2 Priority Two - Poorly-known species – known from few locations, some on conservation lands**  
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, for example, 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 for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

**P3 Priority Three - Poorly-known species – known from several locations**  
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. These species need 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 a conservation dependent specially protected species.  
(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.  
(d) Other species in need of monitoring.

#### **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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened 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 the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.