Department of Mines, Petroleum and Exploration

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	8033/2
Permit type:	Purpose Permit
Applicant name:	BHP Iron Ore Pty Ltd
Application received:	31 July 2024
Application area:	300 hectares
Purpose of clearing:	Mineral exploration, hydrological investigations, geological investigations, communications towers, LiDAR systems, meteorological masts and associated activities
Method of clearing:	Mechanical Removal
Tenure:	*Iron Ore (McCarney's Monster) Agreement Authorisation Act 1972*, Mineral Lease 266SA (AM 70/266)
Location (LGA area/s):	Shire of East Pilbara
Colloquial name:	Ministers North Exploration

1.2. Description of clearing activities

BHP Iron Ore Pty Ltd proposes to clear up to 300 hectares of native vegetation within a boundary of approximately 3,293 hectares, for the purpose of mineral exploration, hydrological investigations, geological investigations, communications towers, LiDAR systems, meteorological masts and associated activities. The project is located approximately 80 kilometres north of Newman, within the Shire of East Pilbara.

Clearing permit CPS 8033/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Mines, Petroleum and Exploration) on 24 May 2018 and was valid from 16 June 2018 to 30 November 2033. The permit authorised the clearing of up to 200 hectares of native vegetation within a boundary of approximately 3,298 hectares, for the purpose of mineral exploration, hydrological investigations, geological investigations and associated activities.

On 31 July 2024, the permit holder applied to amend CPS 8033/1 to amend the permit boundary to exclude recently identified caves (with a 100 metre buffer) and waterholes (with a 10 metre buffer); increase the clearing amount by 100 hectares, amend the purpose to 'clearing for the for the purposes of mineral exploration, hydrological investigations, geological investigations, communications towers, LiDAR systems, meteorological masts and associated activities'; extend the permit duration to 30 November 2035; extend the clearing period to 30 November 2030; extend the final reporting date to 30 November 2035; and to amend the permit holder name to "BHP Iron Ore Pty Ltd".

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	16 September 2025
Decision area:	300 hectares of native vegetation

1.4. Reasons for decision

This clearing permit 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 Mines, Petroleum and Exploration (DMPE) advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix E), supporting information provided by the applicant including the results of a flora and vegetation survey (Appendix D), 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 has not changed since the assessment for CPS 8033/1. The Delegated Officer determined that the proposed additional clearing of 100 hectares, change of permit purpose, and extension of duration is not likely to lead to an unacceptable risk to environmental values.

1.5. Site map

A site map of proposed clearing is provided in Figure 1 below.

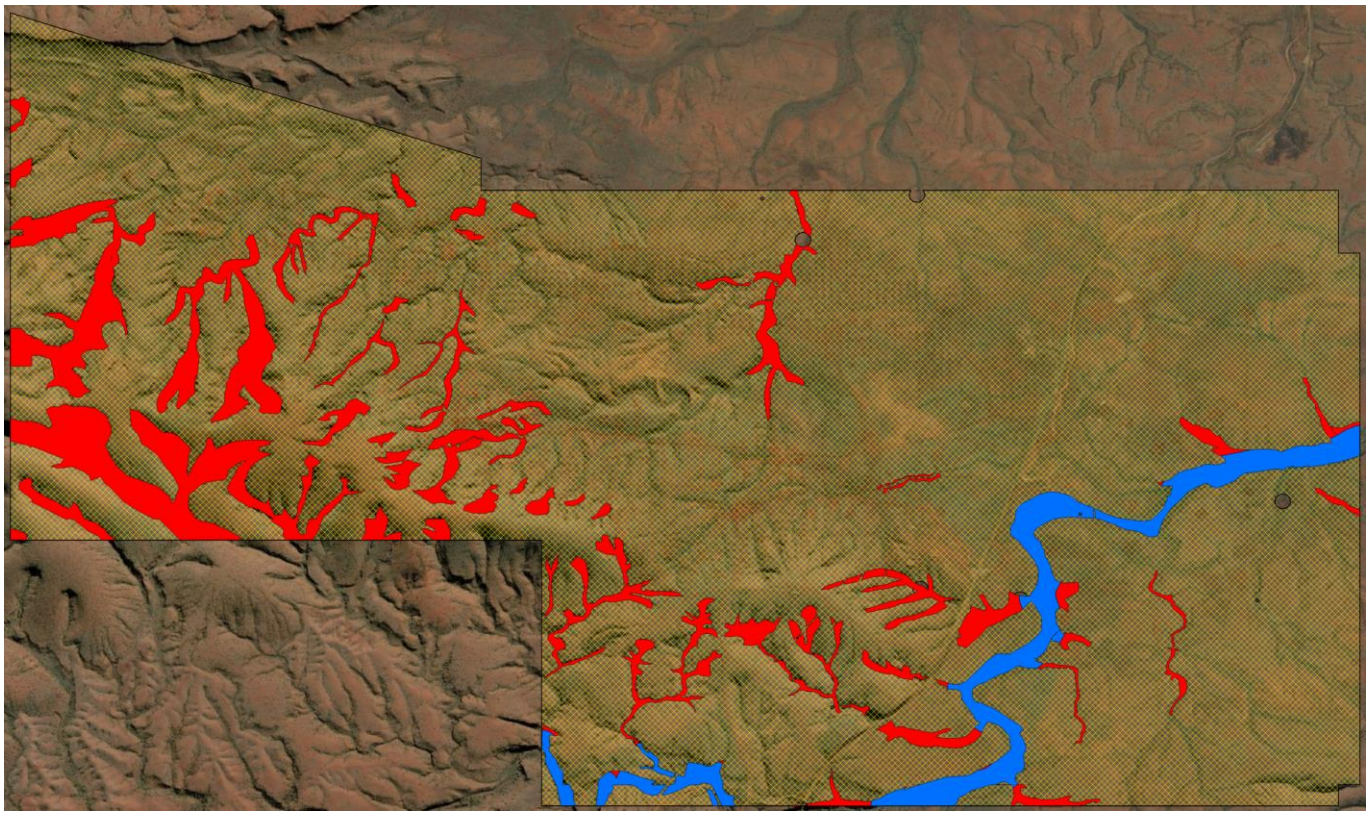

Figure 1. Map of the application area. The yellow area indicates the area within which conditional authorised clearing can occur under the granted clearing permit. The red area indicates where clearing cannot occur. The blue area indicates where clearing is conditioned to occur only for the purpose of clearing tracks.

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)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)
- *Iron Ore (McCarney's Monster) Agreement Authorisation Act 1972*

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, 2016a)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016b)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The Native Vegetation Clearing Permit Amendment Application Supporting Document was submitted by the applicant, indicating that (BHP, 2024b):

- Populations of Priority flora will be avoided by a 10 metre buffer where practicable;
- Control of established weed populations will be carried out according to BHP's standard Weed Control and Management Procedures;
- Active Western pebble-mound mouse mounds will be avoided using a 10 metre buffer where practicable; and
- Where practicable, existing cleared tracks will be used to cross areas identified as Major Drainage Lines. If it is necessary for new crossings to be installed, clearing will be kept to a bare minimum and will be constructed flat level to the surface (i.e. a simple clearing with no bunds) to maintain the natural surface flow.

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 significantly from the clearing permit decision report CPS 8033/1.

As of 30 June 2024, 181.49 hectares of native vegetation have been cleared under CPS 8033/1 (BHP, 2024a). The assessment against the clearing principles (Appendix B) identified the impacts of the proposed clearing are limited and able to be managed to be environmentally acceptable with standard avoid and minimise, hygiene, and riparian vegetation management conditions. Additionally, two restricted clearing conditions and a fauna management condition for the western pebble-mound mouse have been placed on the clearing permit.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 11 October 2024 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WCD2014/001) over the area under application (DPLH, 2025). This claim has been determined by the Federal Court on behalf of the claimant group (Banjima People). 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 14 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.

The application area is located within the EPA assessment for the BHP Pilbara Expansion Strategic Proposal (Assessment Number: 1934) (GIS Database). This proposal is to assess the construction and operation of iron ore mine developments. This proposal is not assessing mineral exploration, or other activities proposed for this clearing permit.

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

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td>Local context</td><td>The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by the landscape and vegetation of the Pilbara bioregion (GIS Database).</td></tr>
<tr><td>Ecological linkage</td><td>According to aerial imagery, the application area does not form part of any formal or informal ecological linkages (GIS Database).</td></tr>
<tr><td>Conservation areas</td><td>The application area does not form part of any known or mapped conservation areas. Unallocated Crown Land (former Juna Downs Station leasehold) and proposed for conservation (2015 excision) is located approximately 27 kilometres north-west of the application area (GIS Database).</td></tr>
<tr><td>Vegetation description</td><td>The vegetation of the application area is broadly mapped as the following Beard vegetation associations:
18: Low woodland; mulga (Acacia aneura); and
82: Hummock grasslands, low tree steppe; snappy gum over Triodia wiseana (GIS Database).

Onshore Environmental undertook a detailed review of all previous flora and vegetation surveys across the Ministers North site (amendment application area). A total of eight broad floristic formations with 17 vegetation associations (Onshore, 2020) have been described and mapped within the amendment application area, described below:
<table>
<tr><th>Broad Floristic Formation</th><th colspan="2">Vegetation Association Description</th></tr>
<tr><td>Acacia Open Scrub</td><td>MI AtpPlAm TpTs ChEll</td><td>Open Scrub of Acacia tumida var. pilbarensis, Petalostylis labicheoides and Acacia monticola over Open Hummock Grassland of Triodia pungens and Triodia sp. Shovelanna Hill (S.van Leeuwen 3835) with Low Open Woodland of Corymbia hamerselyana and Eucalyptus leucophloia subsp. leucophloia on red brown sandy loam on minor drainage lines</td></tr>
<tr><td>Corymbia Low Woodland</td><td>GG CfEllFib AhDovmAsha CyaErmuThm b</td><td>Low Woodland of Corymbia ferriticola, Eucalyptus leucophloia subsp. leucophloia and Ficus brachypoda over Open Shrubland of Acacia hamersleyensis, Dodonaea viscosa subsp. mucronata and Astrotricha hamptonii over Open Tussock Grassland of Cymbopogon ambiguus, Eriachne mucronata and Themeda sp. Mt Barricade on red brown loam along clifflines and gorge walls</td></tr>
<tr><td>Eucalyptus Low Open Forest</td><td>MA EcrEvEx ApypAtpGoro TtEuaCyp</td><td>Low Open Forest of Eucalyptus camaldulensis subsp. refulgens, Eucalyptus victrix and Eucalyptus xerothemica over High Shrubland of Acacia pyrifolia var. pyrifolia, Acacia tumida var. pilbarensis and Gossypium robinsonii over Open Tussock Grassland of Themeda triandra, Eulalia aurea and Cymbopogon procerus on red brown clay loam on major drainage lines</td></tr>
<tr><td>Eucalyptus Open Forest</td><td>MA EcrEvMa AcpAamAthe TydCyv</td><td>Open Forest of Eucalyptus camaldulensis var. refulgens, Eucalyptus victrix and Melaleuca argentea over Low Open Forest of Acacia coriacea subsp. pendens, Acacia ampliceps and Atalaya hemiglauca over Open Sedges of Typha domingensis and Cyperus vaginatus on brown sandy clay loam along major rivers with permanent water</td></tr>
</table>
</td></tr>
</table>

Characteristic	Details
	<table><tr><td>Eucalyptus Woodland</td><td>MA EcrEv AciApypMg CcEuaTt</td><td>Woodland of Eucalyptus camaldulensis subsp. refulgens and Eucalyptus victrix over High Open Shrubland of Acacia citrinoviridis, Acacia pyrifolia var. pyrifolia and Melaleuca glomerata over Tussock Grassland of *Cenchrus ciliaris, Eulalia aurea and Themeda triandra on brown clay loam on banks of major drainage lines</td></tr><tr><td></td><td>MA EvAciEcr TercCocrApyp CcEuaTt</td><td>Woodland of Eucalyptus victrix, Acacia citrinoviridis and Eucalyptus camaldulensis subsp. refulgens over Low Open Shrubland of Tephrosia rosea var. clementii, Corchorus crozophorifolius and Acacia pyrifolia var. pyrifolia over Very Open Tussock Grassland of *Cenchrus ciliaris, Eulalia aurea and Themeda triandra on brown loamy sand on channels of major drainage lines</td></tr><tr><td>Themeda Open Tussock Grassland</td><td>ME TtAriCya ChEll AmPlAnl</td><td>Open Tussock Grassland of Themeda triandra, Aristida inaequiglumis and Cymbopogon ambiguus with Low Open Woodland of Corymbia hamerselyana and Eucalyptus leucophloia subsp. leucophloia over Open Shrubland of Acacia monticola, Petalostylis labicheoides and Androcalva luteiflora on red brown alluvium on minor and medium drainage lines</td></tr><tr><td>Themeda Tussock Grassland</td><td>GG TtErmuThmb EllChCf AtpGoroPl</td><td>Tussock Grassland of Themeda triandra, Eriachne mucronata and Themeda sp. Mt Barricade with Low Open Woodland of Eucalyptus leucophloia subsp. leucophloia, Corymbia hamersleyana and Corymbia ferriticola over High Shrubland of Acacia tumida var. pilbarensis, Gossypium robinsonii and Petalostylis labicheoides on red brown sandy loam on narrowly incised rocky drainage lines</td></tr><tr><td>Triodia Hummock Grassland</td><td>FS Ts CdHc AancAiGrwh</td><td>Hummock Grassland of Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of Corymbia deserticola subsp. deserticola and Hakea chordophylla over Open Shrubland of Acacia ancistrocarpa, Acacia inaequilatera and Grevillea wickhamii subsp. hispidula on red brown sandy loam on footslopes and stony plains</td></tr><tr><td></td><td>FS TsTpTw Ell AbApaAanc</td><td>Hummock Grassland of Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Triodia pungens and Triodia wiseana with Low Open Woodland of Eucalyptus leucophloia subsp. leucophloia and Open Shrubland of Acacia bivenosa, Acacia pachyachra and Acacia ancistrocarpa on red brown loam on footslopes, low undulating hills and stony plains</td></tr><tr><td></td><td>FS Tw Ell</td><td>Hummock Grassland of Triodia wiseana with Scattered Low Trees of Eucalyptus leucophloia subsp. leucophloia on red silty clay on hill slopes and footslopes</td></tr><tr><td></td><td>HC Tw Ah EkkEgCh</td><td>Hummock Grassland of Triodia wiseana with Shrubland of Acacia hamersleyensis and Open Mallee of Eucalyptus kingsmillii subsp. kingsmillii, Eucalyptus gamophylla and Corymbia hamersleyana (mallee form) on red brown loam and silty loam on hill crests</td></tr><tr><td></td><td>HC Tw AiAb InrSeao</td><td>Hummock Grassland of Triodia wiseana with High Open Shrubland of Acacia inaequilatera and Acacia bivenosa over Low Open Shrubland of Indigofera rugosa and Senna artemisioides subsp. oligophylla on red silty loam on dolerite hill crests</td></tr><tr><td></td><td>HC TwTsTp EllCh Ah</td><td>Hummock Grassland of Triodia wiseana, Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) and Triodia pungens with Low Open Woodland of Eucalyptus leucophloia subsp. leucophloia and Corymbia hamerselyana over Open Shrubland of Acacia hamersleyensis on red brown clay loam on hill crests and upper hill slopes</td></tr><tr><td></td><td>HS TsTwTp EllCh AhiAaa</td><td>Hummock Grassland of Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Triodia wiseana and Triodia pungens with Low Open Woodland of Eucalyptus leucophloia subsp. leucophloia and Corymbia hamersleyana over Low Open Shrubland of Acacia hilliana and Acacia adoxa var. adoxa on red brown sandy loam on hill slopes</td></tr><tr><td></td><td>HS TwTbrTs EllExCh PtcPtasAhi</td><td>Hummock Grassland of Triodia wiseana, Triodia brizoides and Triodia sp. Shovelanna Hill with Low Open Woodland of Eucalyptus leucophloia subsp. leucophloia, Eucalyptus xerothermica and Corymbia hamersleyana over Low Open Shrubland of Ptilotus calostachyus, Ptilotus astrolasius and Acacia hilliana on brown loam on hill crests and upper hill slopes</td></tr><tr><td></td><td>ME TpTlo ExAciCh PlApypGoro</td><td>Hummock Grassland of Triodia pungens and Triodia longiceps with Low Woodland of Eucalyptus xerothermica, Acacia citrinoviridis and Corymbia hamersleyana over High Shrubland of Petalostylis labicheoides, Acacia pyrifolia var. pyrifolia and Gossypium robinsonii on red brown clay loam on medium drainage lines and surrounding floodplains</td></tr></table>
Vegetation condition	The supporting document (BHP, 2024b) and aerial imagery indicate the vegetation within the proposed clearing area ranges from Excellent to Completely Degraded (Trudgen, 1991) condition The full Trudgen (1991) condition rating scale is provided in Appendix C.
Climate and landform	The application area is located in an arid area with an annual average rainfall (Newman Aero) of 327.5 millimetres (BoM, 2025).
Soil description	The soil within the amendment application area is mapped as stony soil, red shallow loam, red shallow sand (DPIRD, 2025).
Land degradation risk	The amendment application area falls within the Newman land system described as rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands (van Vreeswyk et al., 2004). Due to the stony mantles cover, the soils in the land system are not likely to be prone to erosion.
Waterbodies	The desktop assessment and aerial imagery indicated that various minor, non-perennial watercourses transect the area proposed to be cleared (GIS Database).
Hydrogeography	The application area is located within the Pilbara Groundwater Area, which is legislated by the RIWI Act 1914. The mapped groundwater salinity is 500-1,000 milligrams per litre total dissolved solids which is described as marginal quality (GIS Database).
Flora	Seven Priority flora species have been recorded in the amendment application area (BHP, 2024b; GIS Database).

Characteristic	Details
Ecological communities	There are no Threatened or Priority Ecological Communities intersecting the amendment application area. The closest record is the Priority 3 Weeli Wolli Spring Community located approximately 3.5 kilometres from the amendment application area (GIS Database).
Fauna	The western pebble-mound mouse (Priority 4) was recorded in the amendment application area (BHP, 2024b). The ghost bat (Vulnerable) has been previously recorded in the amendment application area (GIS Database).
Fauna habitat	Biologic (2017) identified the following four vertebrate fauna habitats within the amendment application Area: **Hillcrest/ Hillslope**: These fauna habitats tend to be more open and structurally simple than other fauna habitats and are dominated by varying species of spinifex. Common features of these habitats are rocky substrates, often with exposed bedrock, and skeletal red soils. This habitat is usually dominated by *Eucalyptus* woodlands, *Acacia* and *Grevillea* scrublands and *Triodia* low hummock grasslands. **Gorge/ Gully***:* Gorges and gullies are rugged, steep-sided valleys incised into the surrounding landscape. Gorges tend to be deeply incised, with vertical cliff faces, while gullies are more open (but not as open as Drainage Area or Valleys). Caves and rock pools are most often encountered in this habitat type. Vegetation can be dense and complex in areas of soil deposition or sparse and simple where erosion has occurred. **Minor Drainage Line**: Characterised by low and sparse vegetation compared to Major Drainage Lines. Consisted of Acacia low woodland sometimes with scattered *Eucalyptus xerothermica* and *Corymbia hamersleyana*. The understorey generally lack density and often consists solely of sparse tussock grassland, often of **Cenchrus ciliaris* where it has been introduced. The substrate can be sandy in places but generally consists of a loam gravel or stone. **Major Drainage Line**: Major Drainage Lines comprise mature River Red Gums/ Coolabahs over dry river pools. Open, sandy or gravelly riverbeds characterise this habitat type. In nongrazed areas, the vegetation adjacent to the main channel or channels is denser, taller and more diverse than adjacent terrain. Fauna habitat mapping is available in Appendix D.

A.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix E.1), and biological survey information (Biota, 2017), impacts to the following conservation significant flora required further consideration (BHP, 2024b; Biota, 2017; Spectrum, 2023; Western Australian Herbarium, 1998-; GIS Database).

Species name	Conservation status	Total records in amendment application area	Total records in conservation areas	Other records in Western Australia
Acacia bromilowiana	P4	38 locations	4 locations	21 locations
Aristida lazaridis	P2	2 locations	1 location	338 locations
Fimbristylis sieberiana	P3	30 locations	3 locations	369 locations
Gymnanthera cunninghamii	P3	5 locations	1 location	61 locations
Indigofera gilesii	P3	1 location	1 location	133 locations
Sida sp. Barlee Range (S. van Leeuwen 1642)	P4	82 locations	7 locations	194 locations
Rostellularia adscendens var. *latifolia*	P3	1 location	5 locations	75 locations

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: Four new Priority flora species have been recorded in the amendment application area (Spectrum, 2023). In total seven Priority flora species have been identified in the amendment application area (see Appendix A.2). These species' conservation statuses are unlikely to be significantly impacted by the proposed amendment as there are several populations outside of the amendment application area (BHP,	May be at variance (as per CPS 8033/1)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
2024b; GIS Database). Additionally, records of these species located in the Gorge/Gully habitat will be avoided due to the restricted clearing condition on the clearing permit, and other records will be avoided with a 10 metre buffer where possible (BHP, 2024b). The surveys undertaken across the amendment application area have resulted in one fauna species of significance (Western pebble-mound mouse (Priority 4)) being recorded from within the amendment application area (BHP, 2024b; Biologic, 2017, 2022). Potential impacts to the Western pebble-mound mouse can be minimise by conditioning recorded active Western pebble-mound mouse mounds to be avoided with a 10 metre buffer. A record of a ghost bat (Vulnerable) is present in the application area (GIS Database). This record has been avoided through the proponent's reduction of the amendment application area by avoiding suitable bat caves with a 50 metre buffer. Nineteen introduced flora species (weeds) have been recorded within the amendment application area, none of which are listed as Declared Pests (BHP, 2024b). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.		
Principle (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."* Assessment: The Gorge/Gully habitat is significant as it contains important habitat features that provide shelter and denning site (BHP Billiton, 2018). This habitat will be avoided during clearing. The Major Drainage Line habitat is important for dispersal of mammal and reptile species in the local area (BHP Billiton, 2018). Potential impacts to this habitat type may be minimised by the implementation of a vegetation management condition and a restricted clearing condition to limit clearing in Major Drainage Line habitat for the purpose of constructing access tracks only.	May be at variance (as per CPS 8033/1)	No
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: There have been no Threatened flora species recorded in the amendment application area (BHP, 2024b; Biota, 2017; Spectrum, 2023; GIS Database) or considered likely to occur in the amendment application area (Spectrum, 2023).	Not likely to be at variance (as per CPS 8033/1)	No
Principle (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."* Assessment: The amendment application area does not contain species or features that can indicate a known or mapped Threatened Ecological Community (BHP, 2024b; Biota, 2017; Spectrum, 2023; GIS Database).	Not likely to be at variance (as per CPS 8033/1)	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (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."* Assessment: The application area falls within the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (GIS Database). Over 99 per cent 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 and 82 (GIS Database). These vegetation associations have not been extensively cleared as over 99 per cent of the pre-European extent of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2019).	Not at variance (as per CPS 8033/1)	No
Principle (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."* Assessment:	Not likely to be at variance (as per CPS 8033/1)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Given the distance to the nearest conservation area (GIS Database), the proposed amendment is not likely to have an impact on the environmental values of any adjacent or nearby conservation areas.		
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: Given one major (Yandicoogina Creek) and several minor non-perennial drainage lines are recorded within the application area (GIS Database), the proposed amendment has the potential to impact vegetation growing in, or in association with, an environment associated with a watercourse or wetland. Potential impacts to riparian vegetation can be minimised by the continuous implementation of a riparian vegetation condition.	At variance (as per CPS 8033/1)	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils in the amendment application area are not susceptible to erosion (van Vreeswyk et al., 2004). Noting the location of the amendment application area, the proposed amendment is not likely to cause appreciable land degradation.	Not likely to be at variance (as per CPS 8033/1)	No
Principle (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."* Assessment: Given no permanent watercourses, wetlands, or Public Drinking Water Source Areas are recorded within the application area (GIS Database), the proposed amendment is unlikely to cause deterioration in the quality of surface or underground water.	Not likely to be at variance (as per CPS 8033/1)	No
Principle (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."* Assessment: Given no permanent water courses or wetlands are recorded within the application area (GIS Database), the proposed amendment is unlikely to cause, or exacerbate, the incidence or intensity of flooding.	Not likely to be at variance (as per CPS 8033/1)	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.

Condition	Description
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. Biological survey mapping

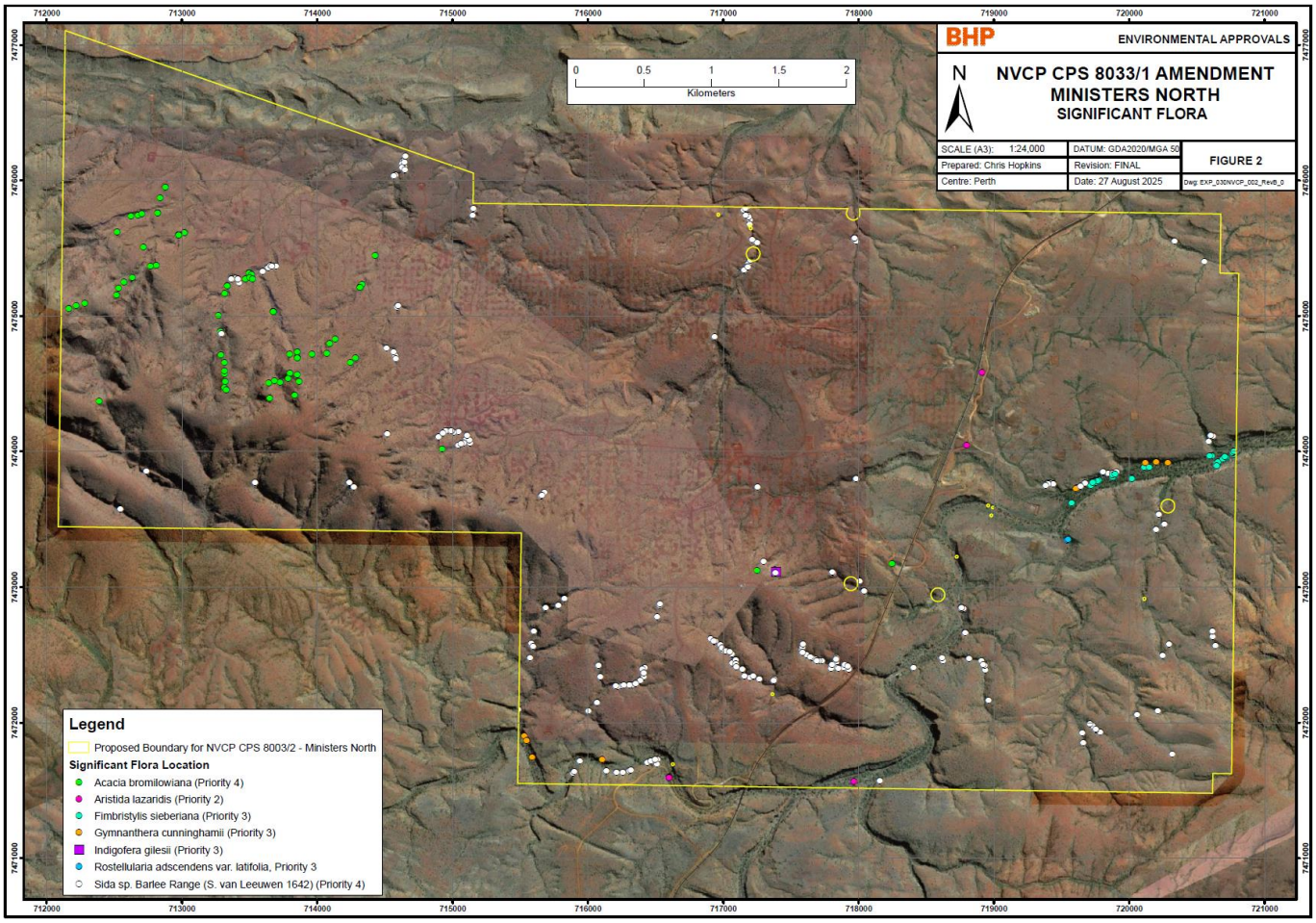

Figure 1. Mapping of Priority flora in the amendment application area (BHP, 2024b; Biota, 2017, Spectrum, 2023).

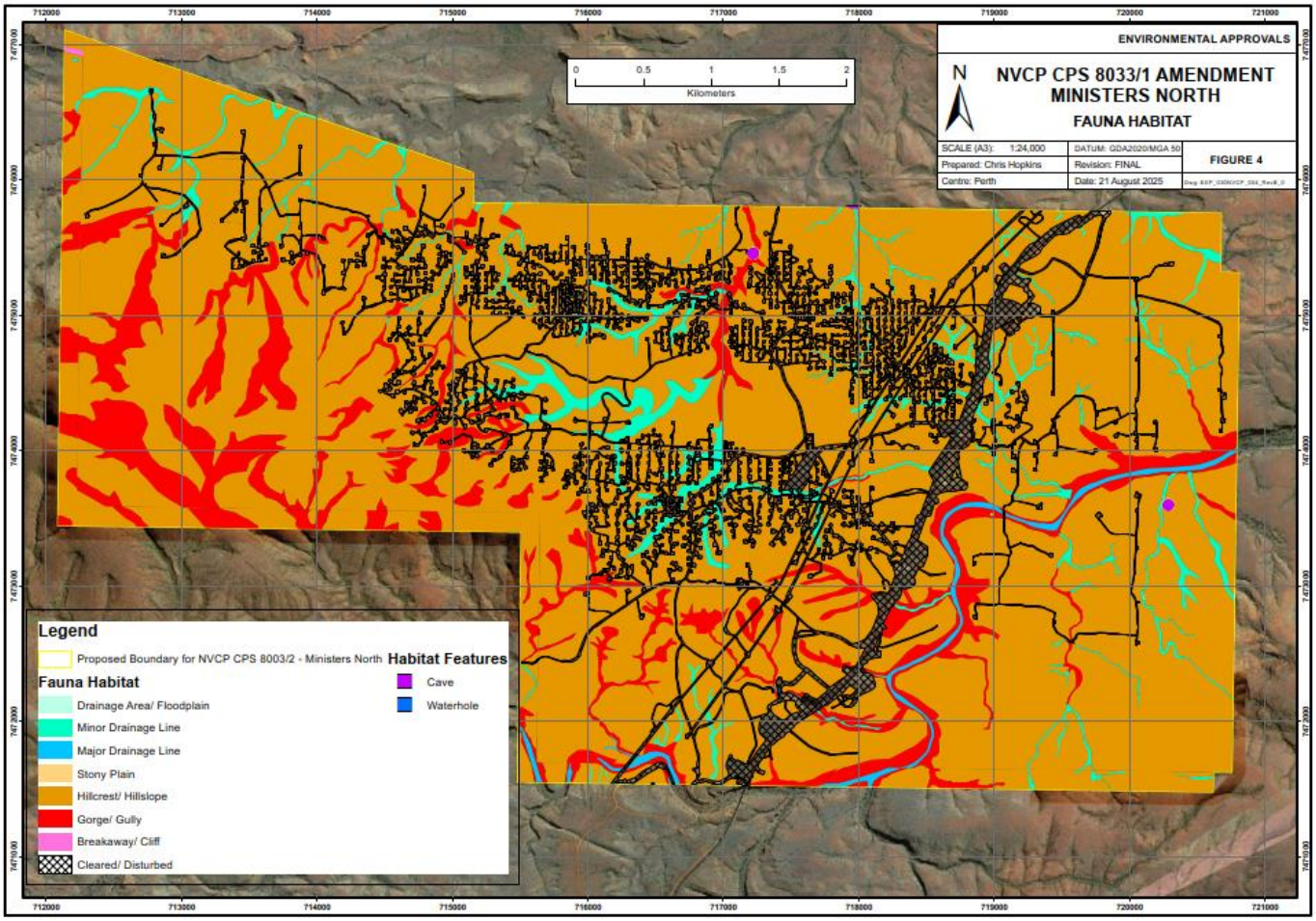

Figure 2. Mapping of fauna habitat in the amendment application (BHP, 2024b; Biologic, 2017, 2022).

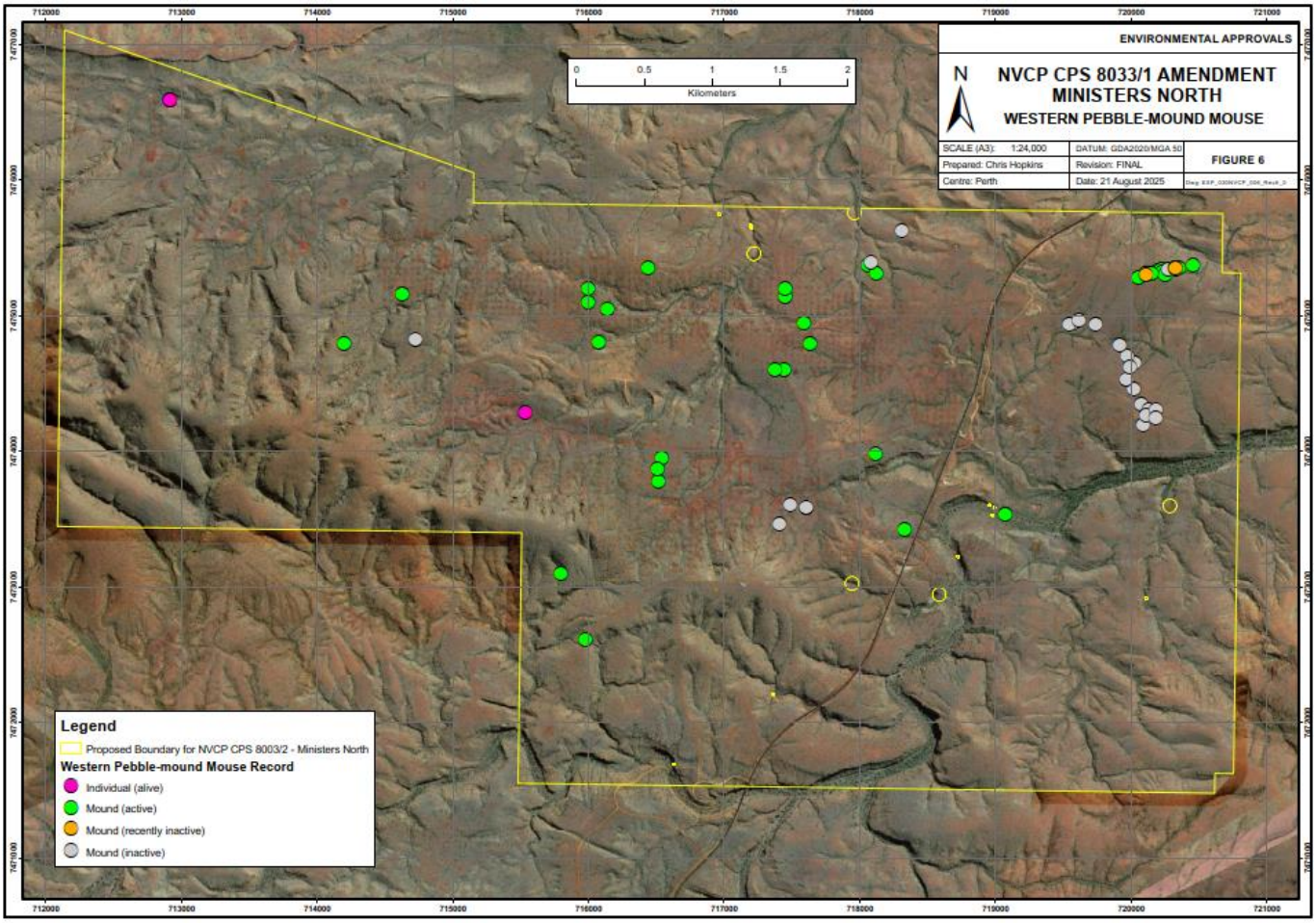

Figure 3. Mapping of Western pebble-mound mouse records (BHP, 2024b; Biologic, 2017, 2022).

Appendix E. Sources of information

E.1. GIS datasets

Publicly available GIS datasets used (sourced from www.data.wa.gov.au):

- 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)
- EPA Referred Significant Proposals (DWER-120)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- IBSA Survey Details (DWER-118)
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Native Title (Determination) (LGATE-066)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- 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 - Systems (DPIRD-064)
- Townsites (LGATE-248)
- 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)

E.2. References

BHP (2024a) BHP Iron Ore Annual Environmental Report July 2023 – June 2024. Unpublished report prepares for the Department of Energy, Mines, Industry Regulation and Safety.

BHP (2024b) Native Vegetation Clearing Permit Amendment Application Supporting Document. Unpublished report prepared for the Department of Mines, Petroleum and Exploration, August 2024.

BHP Billiton (2018) Ministers North Exploration. Native Vegetation Clearing Permit Application Supporting Document. BHP Billiton Iron Ore Pty Ltd, Western Australia, 2018.

Biologic (2017) Ministers North Level 2 Vertebrate Fauna Survey. Biologic Environmental Survey prepared for BHP Iron Ore, October 2017.

Biologic (2022) Central Pilbara Hub Targeted Matters of National Environmental Significance Vertebrate Fauna Survey. Biologic Environmental Survey prepared for BHP WAIO, May 2023.

Biota Environmental Services Pty Ltd (Biota) (2017) Ministers North Detailed Flora and Vegetation Survey. Report prepared for BHP, October 2017.

Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Newman Aero Station. Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 13 August 2025).

Department of Environment Regulation (DER) (2014) *A guide to the assessment of applications to clear native vegetation*. Perth. https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf

Department of Planning, Lands and Heritage (DPLH) (2025) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS (Accessed 20 August 2025).

Department of Primary Industries and Regional Development (DPIRD) (2025) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f (Accessed 13 August 2025).

Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. https://www.wa.gov.au/system/files/2024-11/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

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

Environmental Protection Authority (EPA) (2020) Technical Guidance – Terrestrial Fauna Surveys. https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.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

Onshore Environmental (Onshore) (2020) Ministers North and Yandi Vegetation Association and Condition Mapping. Report prepared for BHP Billiton Iron Ore, June 2020.

Spectrum Ecology Pty Ltd (Spectrum) (2023) Ministers North Targeted Significant Flora & Vegetation Assessment. Report prepared for BHP WAIO, November 2023.

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.

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) An inventory and condition survey of the Pilbara Region, Western Australia. Technical Bulletin No. 92. Department of Agriculture, South Perth, Western Australia.

Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed 27 August 2025).

4. Glossary

Acronyms:

BC Act	*Biodiversity Conservation Act 2016,* 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)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety (now DMPE)
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DMPE)
DMP	Department of Mines and Petroleum, Western Australia (now DMPE)
DMPE	Department of Mines, Petroleum and Exploration
DoEE	Department of the Environment and Energy (now DCCEEW)
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 (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	*Environmental Protection Act 1986*, Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

DBCA (2023) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia:

Threatened species

T 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

Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.

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

SP **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.

Priority species

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.