Department of Energy, Mines, Industry Regulation and Safety

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcome

1.1. Permit application details

Permit number:	10251/2
Permit type:	Purpose Permit
Applicant name:	Pilbara Manganese Pty Ltd
Application received:	1 October 2024
Application area:	452.097 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	General Purpose Leases 45/37, 45/38, 45/39, 45/40, 45/279, 45/280, 45/283, 45/284, 45/332, 45/333, 45/334, 45/335, 46/04, 46/05 Mining Leases 45/107, 45/429, 45/430, 45/431, 45/432, 45/433, 45/517, 45/600, 45/601, 45/602, 45/637, 45/638, 45/639, 45/640, 45/1115, 45/1218, 46/92, 46/93, 46/108, 46/137, 46/150, 46/161, 46/162, 46/383, 46/384 Miscellaneous Licences 45/145, 45/680, 45/688, 46/29
Location (LGA area/s):	Shire of East Pilbara
Colloquial name:	Woodie Woodie Manganese Operations

1.2. Description of clearing activities

Pilbara Manganese Pty Ltd proposes to clear up to 452.097 hectares of native vegetation within a boundary of approximately 2,671 hectares, for the purpose of mineral productions and associted activities.

Clearing permit CPS 10251/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 28 September 2023 and was valid from 21 October 2023 to 20 October 2028. The permit authorised the clearing of up to 450 hectares of native vegetation within a boundary of approximately 2,670 hectares, for the purpose of mineral production and associated activities.

On 1 October 2024, the Permit Holder applied to amend CPS 10251/1 to increase the clearing area by 2.097 hectares, modify the permit footprint, and modify tenements listed on the clearing permit.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	29 May 2025
Decision area:	452.097 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) on 1 October 2024. DEMIRS advertised the application for 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, relevant datasets, supporting information provided by the applicant including the results of a flora and vegetation survey and/or fauna survey, the clearing principles set out in Schedule 5 of the EP Act, and any other matters considered relevant to the assessment. The assessment identified that the proposed clearing may have a significant impact on habitat suitable for conservation significant fauna. The assessment also idenitifed that there would be a loss of vegetation growing in association with watercourses.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures, the Delegated Officer determined that the proposed clearing is not likely to lead to an unacceptable risk to the environment and that the potential impacts can be managed by condition on the clearing permit. The Delegated Officer decided to grant a clearing permit with various management conditions.

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, green, and red areas indicate the areas within which conditional authorised clearing can occur under the granted clearing permit. Red areas indicate areas of seasonal avoidance and green areas indicate areas where a pre-clearance survey is required.

2. Assessment of application

2.1. Avoidance and mitigation measures

While no evidence of avoidance or mitigation measures was provided to support the amendment application, noting the small increase of the proposed clearing (2.097 hectares) of the clearing it was deemed that no further consideration is required to minimise impacts on environmental values. Avoidance and mitigation measures proposed for the original clearing permit (CPS 10251/1) will still be implemented for the amended permit.

2.2. Assessment of impacts on environmental values

The assessment against the ten clearing principles identified that the proposed clearing is not likely to have a significant impact on Priority flora populations recorded in the application area and the local area. There were no Threatened flora species recorded in the application area or in the survey area.

The vegetation proposed to be cleared does not contain or form a part of a Threatened or Priority Ecological Community. At the bioregion (Pilbara) and state level, over 99 per cent of the pre-European vegetation extent remains (Government of Western Australia, 2019). The nearest conservation area is located over 45 kilometres northwest of the application area and the proposed clearing is not likely to impact on the environmental values of this area (GIS Database). The proposed clearing is not likely to lead to appreciable land degradation or impacts surface water quality, groundwater quality or lead to increase in flooding.

The native vegetation present in the permit boundary is likely to provide suitable habitat for conservation significant fauna. Of the mapped habitats, the rocky hills and breakaway habitat is considered most important as it provides habitat for several Threatened and Priority fauna species and is limited in extent in the region compared with other mapped habitats (ConsMin, 2023; Western Wildlife, 2022). The rocky outcrops and breakaways provide caves, cracks and crevices for shelter, breeding, and roosting sites for a range of native fauna, including the northern quoll (*Dasyurus hallucatus*) (Western Wildlife, 2022).

Noting that the application comprises of vegetation associated with watercourses and wetlands, the proposed clearing may be at variance to principle (f).

Based on the above, the proposed clearing may be at variance to principles (a), (b), and (f), it is not at variance with principles (e) and (h) and is not likely to be at variance with the remaining clearing principles.

The increase in authorised clearing from 450 hectares to 452.097 hectares within the increased permit boundary is unlikely to result in any significant change to the environmental impacts of the proposed clearing.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision report CPS 10251/1.

2.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 11 March 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 is one native title claim (WCD2019/010) over the area under application (DPLH, 2025). This claim has been determined by the Federal Court on behalf of the claimant group (Nyamal People #1). 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 two 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 surrounded by Ministerial Statement 2245. The areas included for this amendment avoid the areas approved under the Ministerial Statement. Consideration will be given to existing Ministerial Statements to ensure that the clearing permit is in accordance with any conditions of that approval.

It is noted that the proposed clearing may impact on night parrot, northern quoll, Pilbara olive python, Pilbara leaf-nosed bat, peregrine falcon, common sandpiper and wood sandpiper which are a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Federal) Department of Climate Change, Environment and Water for environmental impact assessment under the EPBC Act. The proponent is advised to contact the Department of Climate Change, Energy, the Environment and Water and the Environment for further information regarding notification and referral responsibilities under the EPBC Act.

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.

Appendix A. Site Characteristics

A.1 Site characteristics

Characteristic	Details
Local context	The project is located approximately 100 km kilometres east of Marble Bar, within the Shire of East Pilbara, within the extensive land use zone (GIS Database). The predominant land use in the region is grazing of native pastures, conservation and mining activities.
Ecological linkage & Conservation areas	According to available databases, the application area is not considered an ecological linkage, nor is it located in close proximity to conservation areas (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations (GIS Database): **173:** Hummock grasslands, shrub steppe; kanji over soft spinifex & *Triodia wiseana* on basalt **177:** Hummock grasslands, sparse shrub steppe; *Acacia bivenosa* over hard spinifex, *Triodia brizioides* **82:** Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana.* A detailed flora and vegetation survey and baseline flora and vegetation surveys were conducted over the application area and its surroundings (Umwelt,2021). The following vegetation associations were recorded within the application area (360 Environmental, 2023): • **HG1:** Occasional mid sparse shrubland of mixed species dominated by *Acacia bivenosa*, *Acacia robeorum* and occasionally *Acacia arida*, *Hakea lorea* subsp. *lorea* and *Grevillea wickhamii* subsp. *hispidula* over an occasional low sparse shrubland of mixed species including *Senna symonii*, *Senna sericea* and *Indigofera monophylla* over low open hummock grassland dominated by *Triodia wiseana*, *Triodia scintillans* and *Triodia longiceps* on brown, red-brown or orange-brown clay loam or sandy clay loam with dolerite, dolomite, ironstone, metamorphic, quartz and calcrete stones, sometimes with dolerite, dolomite or metamorphic outcropping on undulating plains and slopes and crests of hills. • **HG2**: Occasional tall to mid sparse shrubland of mixed species including *Acacia bivenosa*, *Acacia arida*, *Grevillea wickhamii* subsp. *hispidula*, *Senna glutinosa* subsp. *glutinosa* and *Acacia synchronicia* over low sparse shrubland of mixed species including *Senna symonii*, *Heliotropium* aff. *argyreum* (potentially undescribed) and *Corchorus lasiocarpus* subsp. *lasiocarpus* over mid open hummock grassland dominated by *Triodia wiseana* and occasionally *Triodia scintillans* on brown or red-brown clay loam with calcrete, dolomite, or dolerite stones, sometimes with calcrete or dolomite outcropping, on slopes and crests of low hills and undulating plains. • **HG4**: Occasional mid sparse shrubland of mixed species including *Acacia synchronicia*, *Acacia sclerosperma* subsp. *sclerosperma* and *Acacia robeorum* over mid open hummock grassland of mixed species including *Triodia longiceps*, *Triodia wiseana* and *Triodia epactia* over low sparse tussock grassland dominated by **Cenchrus ciliaris* and *Sporobolus australasicus* on brown clay loam or sandy clay with ironstone, calcrete, quartz, and dolerite stones on colluvial plains and flats. • **HG5:** Occasional tall to mid sparse shrubland of mixed species including *Acacia robeorum* and *Acacia synchronicia* over mid open hummock grassland of mixed species dominated by *Triodia wiseana* and occasionally *Triodia epactia* and *Triodia longiceps* over an occasional low sparse tussock grassland dominated by *Sporobolus australasicus* and **Cenchrus ciliaris* on red-brown, red, or brown clay loam or sandy clay loam with dolerite, metamorphic, ironstone and quartz stones on undulating plains and flat. • **HG6**: Occasional tall sparse shrubland of mixed species including *Hakea lorea* subsp. *lorea* and *Acacia inaequilatera* over mid open hummock grassland of mixed species including *Triodia longiceps*, *Triodia epactia* and occasionally *Triodia wiseana* over an occasional low sparse tussock grassland of **Cenchrus ciliaris* on red-brown or brown clay loam or sandy clay loam with metamorphic, quartz, ironstone, and dolomite stones on colluvial plains and flat. • **HG7:** Tall to mid sparse shrubland of mixed species including *Acacia bivenosa*, *Acacia robeorum* and occasionally *Acacia ancistrocarpa* over low sparse shrubland of mixed species including *Hibiscus sturtii* var. *campylochlamys*, *Corchorus lasiocarpus* subsp. *lasiocarpus*, *Scaevola amblyanthera* var. *centralis* and *Indigofera monophylla* over mid open hummock grassland of mixed species dominated by *Triodia wiseana* and occasionally

Characteristic	Details
	Triodia longiceps and *Triodia epactia* over an occasional mid open tussock grassland of mixed species including **Cenchrus ciliaris*, *Paraneurachne muelleri* and *Chrysopogon fallax* on red-brown or brown sandy clay loam or clay loam, sometimes with ironstone, dolomite, dolerite, quartz, calcrete and metamorphic stones, rarely with calcrete or metamorphic outcropping, on undulating and colluvial plains, flats, and minor drainage features. • **HG8:** Occasional tall to mid sparse shrubland of mixed species including *Acacia trachycarpa*, *Hakea lorea* subsp. *lorea*, *Acacia inaequilatera* and *Acacia pyrifolia* var. *pyrifolia* over low open hummock grassland of mixed species dominated by *Triodia epactia*, *Triodia wiseana* and occasionally *Triodia longiceps* over an occasional low open tussock grassland of mixed species including **Cenchrus ciliaris*, *Eragrostis eriopoda* and *Eragrostis desertorum* on red-brown or brown sandy clay loam or clay loam with dolerite, ironstone, quartz, dolomite and calcrete stones, occasionally with dolomite or calcrete outcropping on colluvial plains, flats and low rises. • **HG10:**Tall sparse shrubland of mixed species dominated by *Acacia inaequilatera* over low sparse shrubland of mixed species including *Corchorus lasiocarpus* subsp. *lasiocarpus*, *Indigofera monophylla*, *Abutilon* sp. Dioicum (A.A. Mitchell PRP 1618) and *Senna glutinosa* subsp. *pruinosa* over low open hummock grassland of mixed species including *Triodia brizoides*, *Triodia epactia* and *Triodia scintillans* on red-brown or orange-brown clay loam or sandy clay loam with dolerite, metamorphic, quartz and chert stones and dolerite, metamorphic or chert outcropping on slopes and crests of hills. • **HG11:** Tall to mid sparse shrubland of mixed species including *Grevillea wickhamii* subsp. *hispidula*, *Acacia inaequilatera* and *Acacia arida* over low sparse shrubland of mixed species including *Acacia hilliana*, *Corchorus lasiocarpus* subsp. *lasiocarpus*, *Triumfetta maconochieana* and *Dampiera candicans* over low open hummock grassland dominated by *Triodia scintillans* and *Triodia epactia* on red-brown, brown or orange-brown clay loam or sandy clay loam with chert stones over chert outcropping on slopes and crests of low hills and undulating plains. • **HG12:** Mid sparse shrubland of mixed species dominated by *Acacia arida* and occasionally *Grevillea wickhamii* subsp. *hispidula* and *Acacia bivenosa* over low sparse shrubland of mixed species including *Corchorus* aff. incanus (potentially undescribed), *Heliotropium* aff. *argyreum* (potentially undescribed) and **Aerva javanica* over low open hummock grassland dominated by *Triodia wiseana* on red-brown, brown, or orange-brown clay loam or sandy clay loam with dolomite, dolerite, metamorphic and quartz stones over dolomite or dolerite outcropping on slopes, crests, ridges and gorges of rocky hills and occasionally stony plains. • **S1:** Occasional low open woodland to isolated trees of mixed species dominated by *Corymbia hamersleyana* and occasionally *Eucalyptus odontocarpa* and *Corymbia candida* subsp. *dipsodes* over tall open shrubland to sparse shrubland of mixed species including *Acacia ancistrocarpa* and *Acacia tumida* var. *pilbarensis* over mid sparse shrubland of mixed species including *Acacia arida*, *Acacia bivenosa*, *Grevillea wickhamii* subsp. *hispidula* and *Acacia acradenia* over low sparse shrubland of mixed species including *Hibiscus sturtii* var. *campylochlamys*, *Anthobolus leptomerioides*, *Bonamia erecta* and *Indigofera monophylla* over low open hummock grassland to sparse hummock grassland of mixed species including *Triodia epactia*, *Triodia scintillans* and *Triodia wiseana* over low sparse tussock grassland of mixed species including *Paraneurachne muelleri*, *Aristida holathera* var. *holathera* and *Chrysopogon fallax* on red-brown or brown sandy clay loam, clay loam or sandy clay with colluvial stones, sometimes with metamorphic or dolerite outcropping in minor creeks and flowlines and sometimes on undulating or colluvial stony plains. • **S2:** Tall open shrubland to sparse shrubland of mixed species dominated by *Atalaya hemiglauca*, *Acacia trachycarpa* and occasionally *Acacia coriacea* subsp. *pendens* and *Acacia ancistrocarpa* over mid sparse shrubland of mixed species including *Acacia pyrifolia* var. *pyrifolia*, *Gossypium australe*, *Acacia bivenosa* and *Carissa lanceolata* over an occasional low sparse hummock grassland of *Triodia longiceps* and *Triodia wiseana* over mid closed tussock grassland to open tussock grassland to sparse tussock grassland of mixed species dominated by **Cenchrus ciliaris* and *Chrysopogon fallax* on brown or red-brown clay loam or sandy clay loam with colluvial stones, occasionally with dolerite or chert outcropping in minor creeklines, flowlines, and on colluvial plains and flats. • **TG1:** Tall to mid sparse shrubland of mixed species dominated by *Acacia trachycarpa*, *Atalaya hemiglauca* and occasionally *Hakea lorea* subsp. *lorea*, *Acacia pyrifolia* var. *pyrifolia* and *Acacia sclerosperma* subsp. *sclerosperma* over low sparse shrubland of mixed species including **Aerva javanica* and *Corchorus lasiocarpus* subsp. *lasiocarpus* over an occasional low sparse hummock grassland of *Triodia epactia* and *Triodia wiseana* over a mid-closed tussock grassland to sparse tussock grassland of **Cenchrus ciliaris* over an occasional low sparse forbland of mixed species including *Boerhavia coccinea*, *Trianthema pilosum* and

Characteristic	Details
	Boerhavia burbidgeana on red-brown, brown or orange clay loam or sandy clay loam with colluvial stones on colluvial plains and flats • **W1:** Low open woodland to isolated trees of mixed species dominated by *Corymbia hamersleyana* and occasionally *Eucalyptus leucophloia* subsp*. leucophloia*, *Corymbia candida* subsp. *dipsodes* and *Eucalyptus victrix* over tall sparse shrubland of mixed species including *Grevillea wickhamii* subsp. *hispidula*, *Atalaya hemiglauca* and *Acacia arida* over mid open shrubland to sparse shrubland of mixed species including *Gossypium australe*, *Acacia bivenosa*, *Acacia pyrifolia* var. *pyrifolia* and *Acacia ancistrocarpa* over low sparse shrubland of mixed species including *Indigofera monophylla*, *Tephrosia rose*a var. *clementii*, *Corchorus lasiocarpus* subsp. *lasiocarpus*, **Aerva javanica* and *Senna artemisioides* subsp. *oligophylla* over tall to mid sparse hummock grassland of mixed species including *Triodia epactia* and *Triodia wiseana* over mid tussock grassland to sparse tussock grassland of mixed species including **Cenchrus ciliaris*, *Paraneurachne muelleri* and *Chrysopogon fallax* on red-brown or brown clay loam, sandy clay loam or sandy loam with colluvial stones, sometimes with dolerite, dolomite, metamorphic, chert or calcrete outcropping in minor creeks and flowlines and sometimes on colluvial plains. • **W2:** Mid to low woodland to open woodland dominated by *Eucalyptus victrix* and occasionally *Eucalyptus camaldulensis* subsp. *refulgen*s and *Corymbia hamersleyana* over tall to mid sparse shrubland of mixed species dominated by *Atalaya hemiglauca*, *Acacia coriacea* subsp. *pendens* and occasionally *Acacia pyrifolia* var. *pyrifolia*, *Acacia trachycarpa* and *Melaleuca glomerata* over low sparse shrubland of mixed species including *Tephrosia rosea* var. *clementii*, *Cullen leucanthum*, *Corchorus lasiocarpus* subsp. *lasiocarpus* and *Corchorus laniflorus* over an occasional mid to low sparse hummock grassland of mixed species including *Triodia epactia*, *Triodia longiceps* and *Triodia wiseana* over mid tussock grassland to sparse tussock grassland of mixed species dominated by **Cenchrus ciliaris* and occasionally *Cymbopogon ambiguus*, *Eriachne tenuiculmis* and *Eriachne benthamii* over an occasional mid open sedgeland to sparse sedgeland of *Cyperus vaginatus* on brown or red-brown sandy clay loam, sandy clay or clayey sand with colluvial stones, occasionally with dolerite or dolomite outcropping in major creeks and flowlines. • **R:** Rehabilitated land • **C:** Cleared land
Vegetation condition	The vegetation survey (ConsMin, 2023; Umwelt, 2021) indicate the vegetation within the proposed clearing area is in Excellent to Completely Degraded condition (adaptation from Trudgen,1991), described as: • Excellent: Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement. To • 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. Most of the application area has been cleared for mining activities (ConsMin, 2023). The full Trudgen (1991) condition rating scale is provided in Appendix B.
Climate and landform	The application area is mapped within elevations of 260 to 320 meters AHD (GIS Database). The climate of the region is arid to subtropical, and the annual rainfall average of approximately 400 millimetres (BoM, 2025).
Soil description & Land degradation risk	The soil is mapped as part of the following soil systems (DPIRD, 2023): • **Paterson system (287Pt):** Stony and sandy plains with isolated low hills of sandstone or conglomerate supporting hard spinifex (and occasionally soft spinifex) grasslands and minor tussock grasslands • **Oakover system (287Ok):** Breakaways, mesas, plateaux, and stony plains of calcrete supporting hard spinifex shrubby grasslands • **McKay system (287Mk):** Hills, ridges, plateaux remnants and breakaways of meta sedimentary and sedimentary rocks supporting hard spinifex grasslands with acacias and occasional eucalypts • **Coongimah system (287Cg):** Plateau surfaces, low hills with steep slopes and undulating uplands supporting hard spinifex grasslands • **Rocklea system (287Pk):** Basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex and occasionally soft spinifex grasslands with scattered shrubs

Characteristic	Details
	• **Billygoat system (287BI):** Dissected plains and gravelly slopes supporting hard spinifex grasslands • **MIN Mine system (287CgX):** Disturbed area, mines, mullock dumps, etc The application area falls within the Fortescue soil landscape province, which is mainly comprised of stony soils over hilly terrain, red shallow loams and sands elsewhere, with some clays on plains (ConsMin, 2023). The systems abovementioned are generally not prone to erosion, except for areas of alluvial plains and drainage lines where vegetation is depleted within the Paterson system (Van Vreeswyk et al. 2004). However, this system is only represented by minimal portions within the whole application area (ConsMin, 2023).
Waterbodies & Hydrogeography	There are three main watercourses that intersect the application area and drain to the Oakover River (ConsMin, 2023). The application area is not located within a Public Drinking Water Source Area (ConsMin, 2023). The mapped groundwater salinity is between 500 - 1,000 milligrams per litre total dissolved solids (GIS Database).
Flora	Flora and vegetation assessment undertaken by Umwelt (2021) and reviewed by 360 Environmental (2022) identified four Priority flora species, including a taxon of other significance, within the application area, and further four likely to occur (ConsMin, 2023).
Ecological communities	There are no mapped Threatened or Priority Ecological Communities (TEC/PEC) within the application area or in close proximity (360 Environmental, 2022; ConsMin, 2023).
Fauna	There are several conservation significant vertebrate fauna species and habitats within 10 kilometres of the application area (ConsMin, 2023; Western Wildlife, 2019a, 2019b). The subterranean fauna survey concluded that the study area, which includes the application area, contain prospective habitat for troglofauna and stygofauna (Bennelongia, 2022a; 2022b).

Appendix B. 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 C. References and databases

1. GIS datasets

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

- Aboriginal Heritage Places (DPLH-001)

- Cadastre Address (LGATE-002)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- IBRA Vegetation Statistics
- Regional Parks (DBCA-026)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

2. References

360 Environmental (2022) Woodie Woodie Flora and Vegetation Addendum to support NVCP application for proposed additional clearing area. Report prepared for Consolidated Minerals Pty Ltd by 360 Environmental Pty Ltd, October 2022.

Bennelongia (2022a) Woodie Woodie Detailed Short-Range Endemic Invertebrates Survey. Prepared for Consolidated Minerals Pty Ltd by Bennelongia Pty Ltd, February 2022.

Bennelongia (2022b) Woodie Woodie Subterranean Fauna Survey. Prepared for Consolidated Minerals Pty Ltd by Bennelongia Pty Ltd, May 2022.

Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online. Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 12 March 2025).

Consolidated Minerals Pty Ltd (ConsMin) (2023) Native Vegetation Clearing Permit: Support Documentation, CPS 10251/1. Prepared by 360 Environmental on behalf of Pilbara Manganese Pty Ltd, a wholly owned subsidiary of Consolidated Minerals Pty Ltd, June 2023.

Department of Planning, Lands and Heritage (DPLH) (2025) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS (Accessed 15 April 2025).

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

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.

Umwelt Environment and Social Consultants (Umwelt) (2021) Baseline Flora and Vegetation Assessment: Woodie Continued Operations Project, Perth: Unpublished report prepared for Consolidated Minerals Pty Ltd by Umwelt Environment and Social Consultants Pty Ltd, December 2021.

Western Wildlife (2019a) Woodie Woodie Mine: Vertebrate Fauna Survey Gap Analysis. Western Australia.

Western Wildlife (2019b) Woodie Woodie Mine: Targeted Northern Quoll Survey 2018- 2019. Western Australia.

Western Wildlife (2022) Woodie Woodie Project: Detailed Vertebrate Fauna Survey 2020-2021. Western Australia

3. 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)
DAWE	Department of Agriculture, Water and the Environment, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety202
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)
DMP	Department of Mines and Petroleum, Western Australia (now DEMIRS)
DoEE	Department of the Environment and Energy (now DAWE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (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* (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

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

T **Threatened species:**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

Threatened fauna is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR **Critically endangered species**
Threatened species considered to be "*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

EN **Endangered species**
Threatened species considered to be "*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU **Vulnerable species**
Threatened species considered to be "*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

Extinct Species:

EX **Extinct species**
Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW **Extinct in the wild species**
Species that *"is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

MI **Migratory species**
Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD **Species of special conservation interest (conservation dependent fauna)**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS **Other specially protected species**
Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

P **Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna

lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 **Priority One - Poorly-known species**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 **Priority Two - Poorly-known species**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 **Priority Three - Poorly-known species**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 **Priority Four - Rare, Near Threatened and other species in need of monitoring**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Principles for clearing native vegetation:

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

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

(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.