

1. Application details and outcomes

1.1. Permit application details

Permit number:	8854/3
Permit type:	Purpose Permit
Applicant name:	Carnegie Gold Pty Ltd
Application received:	16 May 2024
Application area:	478.02 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 30/157, 30/256 General Purpose Leases 30/8, 30/9
Location (LGA area):	Shire of Menzies
Colloquial name:	Riverina Gold Project

1.2. Description of clearing activities

Carnegie Gold Pty Ltd proposes to clear up to 478.02 hectares of native vegetation within a boundary of approximately 671.5 hectares, for the purpose of mining related infrastructure (Carnegie Gold, 2024). The project is located approximately 45 kilometres west of Menzies, within the Shire of Menzies (GIS Database).

The application is to allow for the extension of the private haul road along an existing pipeline access track from Riverina to Lady Gladys Minesite (Carnegie Gold, 2024). An additional clearing of 13.07 hectares will be required along the current pipeline access track to ensure safe running of the larger haul trucks (Carnegie Gold, 2024).

Clearing permit CPS 8854/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 18 June 2020 and was valid from 11 July 2020 to 10 July 2025. The permit authorised the clearing of up to 219.5 hectares of native vegetation within a boundary of approximately 219.5 hectares, for the purposes of mineral production and associated activities.

Clearing permit CPS 8854/2 was granted on 17 August 2021, amending the permit to increase the permit boundary and approved clearing area to approximately 464.9 hectares (an increase of 245.5 hectares) to enable an expansion of the Riverina Gold Project.

On 16 May 2024, the Permit Holder applied to amend CPS 8854/2 to extend the permit duration and to increase the permit boundary by 206.6 hectares to approximately 671.5 hectares and to increase the approved clearing area by 13.07 hectares to 478.02 hectares to enable construction of a haulage road. Approximately 102.351 hectares of native vegetation has been cleared under CPS 8854/2 (Ora Banda Mining, 2024).

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	29 October 2024
Decision area:	478.02 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51O and 51KA(1) of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advertised the application for a public comment for a period of 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 D), supporting information provided by the applicant including the results of a flora and vegetation survey (Biostat, 2020; Ecotec, 2021; JBBC, 2019; 2021; 2024), 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 8854/2. After consideration of the available information, the Delegated Officer determined that the proposed clearing is not likely to lead to an unacceptable risk to the environmental values. The Delegated Officer decided to grant the amended clearing permit with the inclusion of additional permit condition of implementing slow directional clearing.

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 approved under CPS 8854/2 within which conditional authorised clearing can occur under the granted clearing permit. The red area indicates the proposed additional amendment area under CPS 8854/3.

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 (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

Carnegie Gold has outlined the following mitigation measures already adopted:

- utilisation of existing historically cleared areas and pastoral infrastructure;
- where feasible, placement of infrastructure in historically degraded mining/pastoral areas;
- progressive clearing as required for project development stages;
- placement of proposed haul road in sections of the active Riverina to Lady Gladys mine water pipeline corridor; and
- recovery and stockpiling of vegetation trash for habitat establishment and progressive rehabilitation of mining disturbed areas (Carnegie Gold, 2024).

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

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed from the Clearing Permit Decision Report CPS 8854/2.

The amendment area is broadly mapped as Beard vegetation associations 20 and 502, which is consistent with the previous permit area (GIS Database). Approximately 99% of the pre-European extent of each of these Beard vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2019). Hence, the vegetation proposed to be cleared does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

JBBC (2024) conducted a detailed vegetation and flora survey of the amendment area during December 2023. A total of 66 native taxa were recorded from 20 families and 33 genera were recorded within the amendment area (JBBC, 2024). No Threatened or Priority flora have been recorded within the amendment application area (JBBC, 2024), and none were found during the flora and vegetation surveys conducted in the previous years within the permit area (JBBC, 2019; 2021).

No Threatened Ecological Communities or Priority Ecological Communities have been recorded within or in close proximity to the application area (GIS Database), and none were identified during the flora and vegetation surveys (JBBC, 2019; 2021; 2024).

A fauna survey was not undertaken within the amendment area, however, searches were made for evidence of Malleefowl (*Leipoa ocellata*, VU) and Arid Bronze Azure Butterfly (*Ogyris subterrestris petrina*, CR) during the vegetation and flora survey undertaken by JBBC in December 2023 (JBBC, 2024). No evidence of the Malleefowl (*Leipoa ocellata*, VU) was recorded during the survey, however the amendment application area falls within the known distribution range for the species and contains suitable habitat (JBBC, 2024; GIS Database). Hence, continued implementation of the existing Malleefowl management condition is recommended, to minimise the risk of impacting on the species. Searches were undertaken for mature smooth skinned Eucalypt species (*Eucalyptus salubris*, *E. salmonophloia*, *E. loxophleba* subsp. *lissophloia* and *E. concinna* that may have basal colonies of abundant Sugar Ants (*Camponotus sp. nr. terebrans*). of a size capable of supporting the obligate association that exists between the Sugar Ant and the Arid Bronze Azure Butterfly larvae (*Ogyris subterrestris petrina*). Isolated individuals of mature *Eucalyptus salubris* recorded within the area were investigated and determined suitable habitat for the species, however they were recorded in degraded condition and no ant colonies were observed (JBBC, 2024).

A number of other bird species of conservation significance have the potential to occur within the application area (Ecotec, 2021; GIS Database), however each are known from much broader distribution ranges and are nomadic or migratory in nature, and are therefore unlikely to rely on habitats found within the amendment application area for their survival (Ecotec, 2021). No

other fauna of conservation significance were deemed likely to occur within the application area (Ecotec, 2021; GIS Database). All fauna habitats represented within the application are considered common and widespread within the region and have been subject to some level of pastoral or mining disturbance (Ecotec, 2021; JBBC, 2019; GIS Database;). Therefore, the proposed clearing of native vegetation for the haulage road is unlikely to represent a significant habitat for fauna species.

The application area is mapped as occurring on the Lawrence, Graves, Moriarty and Bunyip land systems, which are slightly to moderately susceptible to water erosion, particularly where perennial shrub cover has been reduced and/or the soil surface is disturbed (Pringle et al., 1994). The continued implementation of watercourse management and staged clearing conditions will also minimise the potential for land degradation.

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the amendment area (GIS Database). The application area is dissected by some ephemeral drainage lines which have already been intersected by current minesite operations (JBBC, 2021). While the mapped vegetation types have not been identified as riparian, potential local impacts to vegetation growing in association with the drainage lines can be minimised by the continued implementation of a watercourse management condition.

The vegetation associations, habitat types and landforms found within the amendment area are similar to the original permit area and are well represented in surrounding areas (JBBC, 2024; GIS Database). The clearing to be conducted within the amendment application area for the proposed haulage road is unlikely to have any significant additional impacts.

Based on the current environmental information, the amendment to increase the amount of clearing authorised, increase the clearing permit boundary and extend the permit duration is unlikely to change the environmental impacts of the proposed clearing. The conditions currently imposed on clearing permit CPS 8854/2 are considered adequate to manage the impacts of the clearing, with the exception of implementing slow directional clearing.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 6 September 2024 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are no over the area under application (DPLH, 2024). However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2024). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

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

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

End

A.1. Site characteristics

Characteristic	Details
Local context	The project is located approximately 45 kilometres west of Menzies, within the Shire of Menzies (GIS Database). The area is located within the East Murchison Subregion of the Murchison Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia (GIS Database).
Ecological linkage	The application area is not known as an important ecological linkage (GIS Database).
Conservation areas	There are no conservation areas mapped within the application area (GIS Database). Land adjacent to the application area is mapped as DBCA interested land which is proposed for conservation (ex Credo) (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation associations:</p> <ul style="list-style-type: none"> • 20: Low woodland; mulga mixed with <i>Allocasuarina cristata</i> and <i>Eucalyptus</i> sp.; • 251: Low woodland; mulga & <i>Allocasuarina cristata</i>; and • 502: Medium woodland; goldfields blackbutt and red mallee (GIS Database). <p>Following is a consolidated list of vegetation associations described over the current permit area and amendment application areas (JBBC, 2019; 2021; 2024):</p> <p>1A – Gently sloping lateritic plain (abundant mantle of fine ironstone gravel) <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i>, <i>E. corrugata</i>, <i>E. griffithsii</i>, <i>Casuarina pauper</i> open woodland to isolated trees over <i>Acacia burkittii</i>, <i>A. tetragonophylla</i> tall shrubland patches over <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Maireana sedifolia</i>, <i>Eremophila decipiens</i> subsp. <i>decipiens</i>, <i>Maireana pyramidata</i>, <i>Scaevola spinescens</i> sparse shrubland over <i>Ptilotus obovatus</i> low isolated shrubs.</p> <p>1B – Gently sloping alluvium at base of greenstone hills <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i>, <i>E. griffithsii</i> mallee woodland over <i>Acacia burkittii</i>, <i>A. caesaneura</i> tall open shrubland over <i>Acacia burkittii</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Eremophila decipiens</i> subsp. <i>decipiens</i>, <i>Hybanthus floribundus</i> subsp. <i>curvifolius</i> sparse shrubland.</p> <p>2 – Gently sloping stony plain (abundant mantles of quartz, ironstone and calcrete) Stands of <i>Eucalyptus corrugata</i> and <i>Casuarina pauper</i> open mallee forest over <i>Casuarina pauper</i>, <i>Dodonaea lobulata</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Scaevola spinescens</i>, <i>Acacia tetragonophylla</i> open shrubland over <i>Casuarina pauper</i>, <i>Dodonaea lobulata</i>, <i>Ptilotus obovatus</i>, <i>Scaevola spinescens</i>, <i>Senna artemisioides</i> subsp. <i>x artemisioides</i> low open shrubland in <i>Acacia burkittii</i>, <i>A. caesaneura</i>, <i>Dodonaea lobulata</i>, <i>A. tetragonophylla</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> open shrubland over <i>Ptilotus obovatus</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> over <i>Ptilotus obovatus</i>, <i>Acacia tetragonophylla</i> low sparse shrubland.</p> <p>3A – Broad drainage lines on alluvial flats <i>Eucalyptus griffithsii</i>, <i>E. oleosa</i> subsp. <i>oleosa</i> woodland over <i>Acacia burkittii</i>, <i>A. assimilis</i> subsp. <i>assimilis</i>, <i>Pittosporum angustifolium</i>, <i>Brachychiton gregorii</i>, <i>Santalum spicatum</i> tall open shrubland over <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Dodonaea lobulata</i>, <i>Acacia burkittii</i>, <i>Eremophila interstans</i> subsp. <i>interstans</i>, <i>E. decipiens</i> subsp. <i>decipiens</i> open shrubland over <i>Maireana georgei</i>, <i>Solanum lasiophyllum</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> low open shrubland.</p> <p>3B – Broad drainage line on alluvial plain; denser patches of vegetation in depressions surrounded by tall open shrubland or open shrubland with isolated trees <i>Eucalyptus corrugata</i>, <i>E. griffithsii</i> woodland over <i>Casuarina pauper</i>, <i>Acacia synchronicia</i>?, <i>Eucalyptus corrugata</i> low open woodland over <i>Acacia murrayana</i>, <i>A. tetragonophylla</i>, <i>Casuarina pauper</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> shrubland over <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Maireana sedifolia</i>, <i>Casuarina pauper</i>, <i>Eremophila decipiens</i> subsp. <i>decipiens</i>.</p> <p>3C – Broad drainage line on alluvial plain; Patches of <i>Acacia aptaneura</i> tall shrubland or low open woodland <i>Acacia aptaneura</i> low open woodland over <i>Acacia aptaneura</i> tall open shrubland over <i>Acacia aptaneura</i>, <i>A. tetragonophylla</i>, <i>Senna artemisioides</i> subsp. <i>x artemisioides</i>, <i>Ptilotus obovatus</i>, <i>Atriplex vesicaria</i> open shrubland over <i>Ptilotus obovatus</i>, <i>Acacia aptaneura</i>, <i>Maireana tomentosa</i>, <i>Sida</i> sp., <i>Senna artemisioides</i> subsp. <i>x artemisioides</i> low sparse shrubland over <i>Enneapogon</i> sp., <i>Sida</i> sp., <i>Senna artemisioides</i> subsp. <i>x artemisioides</i> low sparse tussock grassland.</p> <p>3D – Broad drainage line; alluvial plain</p>

Characteristic	Details
	<p><i>Senna artemisioides</i> subsp. <i>x artemisioides</i>, <i>Acacia tetragonophylla</i> sparse shrubland over <i>Senna artemisioides</i> subsp. <i>x artemisioides</i>, <i>Maireana pyramidata</i> low sparse shrubland over <i>Ptilotus obovatus</i>, <i>Maireana thesioides</i>, <i>Sida</i> sp., <i>Atriplex vesicaria</i>, <i>Enneapogon</i> sp. low sparse shrubland.</p> <p>3E – Broad drainage line on alluvial plain <i>Acacia burkittii</i>, <i>Acacia aptaneura</i>, <i>A. murrayana</i>, <i>Santalum spicatum</i> tall shrubland over <i>Senna artemisioides</i> subsp. <i>x artemisioides</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Acacia murrayana</i>, <i>Senna pleurocarpa</i> var. <i>pleurocarpa</i>, <i>Pimelea microcephala</i> shrubland over <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Ptilotus obovatus</i> low open to sparse shrubland.</p> <p>4A – Greenstone hills; midslopes; aspect variable <i>Casuarina pauper</i> open woodland over <i>Acacia quadrimarginea</i>, <i>Casuarina pauper</i> low open forest over <i>Acacia quadrimarginea</i>, <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>, <i>Dodonaea lobulata</i>, <i>Acacia burkittii</i> tall open shrubland over <i>Dodonaea lobulata</i>, <i>Dodonaea rigida</i>, <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> open shrubland over <i>Dodonaea lobulata</i>, <i>Dodonaea rigida</i>, <i>Ptilotus obovatus</i>, <i>Acacia quadrimarginea</i> low sparse shrubland over <i>Cheilanthes lasiophylla</i>, <i>Enneapogon</i> sp., <i>Haloragis trigonocarpa</i>, <i>Solanum lasiophyllum</i> low sparse fernland.</p> <p>4B – Greenstone hills; midslopes <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> or <i>Casuarina pauper</i> isolated low trees (8 –9 m) over <i>Acacia ramulosa</i> var. <i>ramulosa</i>, <i>A. quadrimarginea</i>, <i>A. caesaneura</i> tall shrubland over <i>Philotheca brucei</i> subsp. <i>brucei</i>, <i>Eremophila latrobei</i> subsp. <i>latrobei</i>, <i>Dodonaea rigida</i>, <i>Prostanthera althoferi</i> subsp. <i>althoferi</i> open shrubland.</p> <p>4C – Crests and upper slopes of greenstone hills <i>Casuarina pauper</i> low open woodland over <i>Casuarina pauper</i>, <i>Acacia quadrimarginea</i>, <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> tall open shrubland over <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>, <i>Casuarina pauper</i>, <i>Dodonaea lobulata</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Acacia tetragonophylla</i> open shrubland over <i>Ptilotus obovatus</i>, <i>Dodonaea lobulata</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> low open shrubland.</p> <p>4D – Upper slopes <i>Acacia quadrimarginea</i>, <i>Santalum spicatum</i> tall shrubland over <i>Dodonaea lobulata</i>, <i>Acacia quadrimarginea</i>, <i>Philotheca brucei</i> subsp. <i>brucei</i>, <i>Senna cardiosperma</i>, <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> open shrubland over <i>Ptilotus obovatus</i>, <i>Dodonaea lobulata</i>, <i>Acacia quadrimarginea</i>, <i>Sida calyxhymenia</i>, <i>Senna cardiosperma</i> low sparse shrubland over low isolated <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>, <i>Enneapogon</i> sp., <i>Haloragis trigonocarpa</i>, <i>Marsdenia australis</i>, <i>Vincetoxicum lineare</i>.</p> <p>4E – Drainage lines, valleys on mid to upper slopes; usually incised. Patches of <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> mallee woodland in <i>Casuarina pauper</i>, <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> low woodland over <i>Acacia assimilis</i> subsp. <i>assimilis</i>, <i>Casuarina pauper</i>, <i>Alectryon oleifolius</i> subsp. <i>canescens</i> tall open shrubland over <i>Dodonaea lobulata</i>, <i>Acacia assimilis</i> subsp. <i>assimilis</i>, <i>Acacia quadrimarginea</i>, <i>Eremophila longifolia</i>, <i>Acacia tetragonophylla</i>, <i>Senna cardiosperma</i> shrubland over <i>Casuarina pauper</i>, <i>Ptilotus obovatus</i>, <i>Dodonaea lobulata</i> low sparse shrubland.</p> <p>5 – Ridge (original application area only) <i>Grevillea nematophylla</i> subsp. <i>nematophylla</i> isolated medium trees over <i>Acacia incurvaneura</i> low open forest over <i>Acacia burkittii</i>, <i>Acacia tetragonophylla</i>, <i>Acacia ramulosa</i> var. <i>ramulosa</i>, <i>Eremophila clarkei</i>, <i>Casuarina pauper</i> tall open shrubland over <i>Philotheca brucei</i> subsp. <i>brucei</i>, <i>Eremophila clarkei</i>, <i>Dodonaea lobulata</i>, <i>Dodonaea rigida</i>, <i>Scaevola spinescens</i> sparse shrubland over <i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>, <i>Philotheca brucei</i> subsp. <i>brucei</i>, <i>Dodonaea rigida</i>, <i>Eremophila clarkei</i>, <i>Scaevola spinescens</i> low open shrubland.</p> <p>6A – Greenstone hills; mostly lower slopes <i>Eucalyptus clelandiorum</i>, <i>E. corrugata</i>, <i>E. oleosa</i> or <i>E. salubris</i> woodlands over <i>Eremophila</i> sp. <i>Mt Jackson</i>, <i>E. oldfieldii</i> subsp. <i>angustifolia</i> tall sparse shrubland over <i>Eremophila</i> sp. <i>Mt Jackson</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> sparse shrubland over <i>Ptilotus obovatus</i>, <i>Eremophila</i> sp. <i>Mt Jackson</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Maireana</i> spp., <i>Casuarina pauper</i> low sparse shrubland.</p> <p>6B – Greenstone hills; ridge; <i>Eucalyptus corrugata</i> woodland over <i>Eucalyptus corrugata</i>, <i>Casuarina pauper</i> low open woodland over <i>Acacia burkittii</i>, <i>Dodonaea lobulata</i> tall sparse shrubland over <i>Dodonaea lobulata</i>, <i>Scaevola spinescens</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Acacia burkittii</i>, <i>Casuarina pauper</i> sparse shrubland over <i>Dodonaea lobulata</i>, <i>Ptilotus obovatus</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Eremophila decipiens</i> subsp. <i>decipiens</i>, <i>Acacia tetragonophylla</i> low sparse shrubland.</p>

Characteristic	Details
	<p>7 – Greenstone hills; summit <i>Acacia caesaneura</i>, <i>Brachychiton gregorii</i>, <i>Acacia quadrimarginea</i> tall shrubland over <i>Eremophila latrobei</i> subsp. <i>latrobei</i> sparse shrubland over <i>Senna cardiosperma</i>, <i>Ptilotus obovatus</i>, <i>Acacia caesaneura</i>, <i>Solanum lasiophyllum</i> low sparse shrubland over <i>Cheilanthes lasiophylla</i> low open fernland.</p> <p>8 – Greenstone hills, outwash slope; valley <i>Casuarina pauper</i> low isolated trees over <i>Acacia burkittii</i>, <i>Allocasuarina eriochlamys</i> subsp. <i>eriochlamys</i>, <i>Pittosporum angustifolium</i> tall shrubland over <i>Allocasuarina eriochlamys</i> subsp. <i>eriochlamys</i>, <i>Acacia burkittii</i>, <i>Eremophila decipiens</i> subsp. <i>decipiens</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Dodonaea lobulata</i>, <i>Acacia tetragonophylla</i> open shrubland, <i>Ptilotus obovatus</i>, <i>Acacia tetragonophylla</i> low sparse shrubland.</p> <p>9A – Greenstone hills, outwash slope; valley <i>Eucalyptus leptopoda</i> subsp. <i>subluta</i>, <i>E. oleosa</i> subsp. <i>oleosa</i>, <i>Acacia burkittii</i>, <i>Casuarina pauper</i> open mallee woodland over <i>Acacia burkittii</i>, <i>A. ramulosa</i> var. <i>ramulosa</i>, <i>A. tetragonophylla</i> tall open shrubland over <i>Acacia assimilis</i> subsp. <i>assimilis</i>, <i>A. burkittii</i>, <i>A. ramulosa</i> var. <i>ramulosa</i> sparse shrubland over <i>Ptilotus obovatus</i> low isolated shrubs.</p> <p>9B – Incised drainage line; valley western slope <i>Casuarina pauper</i> isolated low trees over <i>Acacia burkittii</i>, <i>A. ramulosa</i> var. <i>ramulosa</i>, <i>A. tetragonophylla</i> tall shrubland.</p> <p>H1 – <i>Eucalyptus oleosa</i> open woodland/ sparse to isolated shrubs on alluvial plains.</p> <p>H2 – <i>Eucalyptus oleosa</i> or <i>E. concinna</i> woodlands / open to sparse shrubland of <i>Acacia hemiteles</i>, <i>Exocarpos aphyllus</i>, <i>Eremophila scoparia</i>, <i>Atriplex vesicaria</i> on hardpan plains often with ironstone gravel.</p> <p>H3 – <i>Eucalyptus lesouefii</i>, <i>E. concinna</i>, <i>Casuarina pauper</i> woodland/ open shrubland Low rises, stony.</p> <p>H4 – <i>Acacia aneura</i>, <i>A. burkittii</i>, <i>A. aptaneura</i> low open forest; broad drainage lines with occasional incised channels.</p> <p>H5 – Alluvial plain. <i>Eucalyptus oleosa</i> isolated trees over <i>Acacia hemiteles</i>, <i>A. microbotrya</i>, <i>Dodonaea rigida</i> tall open shrubland over <i>Acacia hemiteles</i>, <i>A. microbotrya</i>, <i>Scaevola spinescens</i> open shrubland over <i>Maireana thesioides</i>, <i>Ptilotus obovatus</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> low sparse chenopod shrubland.</p> <p>H6 – Floodplain <i>Acacia burkittii</i>, <i>Senna artemisioides</i> subsp. <i>x petiolaris</i> low isolated shrubs over <i>Atriplex vesicaria</i>, <i>Ptilotus obovatus</i>, <i>Sclerolaena diacantha</i> low sparse chenopod shrubland.</p> <p>H7 – Upper Catchment <i>Casuarina pauper</i> low open forest over <i>Exocarpos aphyllus</i>, <i>Casuarina pauper</i>, <i>Eremophila sp.</i> Mt Jackson tall open shrubland over <i>Casuarina pauper</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Acacia hemiteles</i> open shrubland over <i>Olearia muelleri</i>, <i>Ptilotus obovatus</i>, <i>Acacia erinacea</i> low open shrubland.</p>
Vegetation condition	<p>The vegetation surveys (JBBC 2019; 2021; 2024) indicates the vegetation within the proposed clearing area is in 'Very Good' to 'Completely Degraded' (Trudgen, 1991) condition, described as</p> <ul style="list-style-type: none"> • 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. • 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. <p>The full Trudgen (1991) condition rating scale is provided in Appendix C.</p>

Characteristic	Details
Climate and landform	The application area is located within the Murchison bioregion and has an arid climate with an annual rainfall of approximately 249.0 millimetres (BoM, 2024).
Soil description	The soils intersecting the application area are mapped as: <ul style="list-style-type: none"> • Lawrence system: Low greenstone hills with ironstone ridges supporting pearl bluebush shrublands and eucalypt woodlands with halophytic undershrubs; • Graves system: Basalt and greenstone rises and low hills supporting eucalypt woodlands with prominent saltbush and bluebush understoreys; • Moriarty system: Low greenstone rises and stony plains supporting chenopod shrublands with patchy eucalypt overstoreys; and • Bunyip system: Gilgaid drainage tract, draining greenstone hills supporting mixed halophytic shrublands occasionally with a black oak overstorey (DPIRD, 2024).
Land degradation risk	The Lawrence, Graves, Moriarty and Bunyip are slightly to moderately susceptible to water erosion, particularly where perennial shrub cover has been reduced and/or the soil surface is disturbed (Pringle et al., 1994).
Waterbodies	There are no permanent watercourses mapped within the application area (GIS Database). The desktop assessment and aerial imagery indicated that several minor non-perennial watercourses transect the application area (GIS Database).
Hydrogeography	The application area is not mapped within a proclaimed public drinking water area (GIS Database). The area is mapped within the Goldfields Groundwater Area, proclaimed under the Rights in Water Irrigation (RIWI) Act (GIS Database).
Flora	Thirty-six conservation significant flora species have been recorded within 50 kilometres of the application area, however flora and vegetation surveys have not recorded any individuals within the application area (JBBC 2019; 2021; 2024). <i>Eutaxia nanophylla</i> , Priority 1, has one record within the application area, however flora surveys did not observe this species and it is likely considered no longer present due to the historical disturbance (JBBC, 2019).
Ecological communities	There are no Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) mapped within the application area (GIS Database). Priority 1 PEC Perrinvale/Walling vegetation complexes (banded ironstone formation), is located approximately eight kilometres west of the application area (GIS Database).
Fauna	No conservation significant fauna species have been recorded within the application area, however eight conservation significant fauna species have been recorded within 50 kilometres of the application area (GIS Database).
Fauna habitat	Following is a consolidated list of fauna habitats described over the current permit area and amendment application areas (Biostat, 2020; Ecotec, 2021; JBBC, 2021): <ul style="list-style-type: none"> • <i>Acacia/Allocasuarina/Casuarina</i> shrubland on rocky hills and slopes; • <i>Eucalypt</i> woodland on rocky hills and slopes; • <i>Eucalypt</i> woodland on sandplain; • <i>Acacia/Allocasuarina/Casuarina</i> shrubland on sandplain; • Major creek line; • <i>Eucalyptus/Casuarina</i> woodlands in valleys; • Tall shrublands on drainage lines; and • Completely disturbed.

A.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre-European extent) (%)
IBRA Bioregion Murchison	28,120,586.77	28,044,823.42	99.73	2,185,987.96	7.77
Beard vegetation associations - State					
Veg Assoc No. 20	1,295,103.39	1,292,474.58	99.80	250,985.57	19.38
Veg Assoc No. 251	173,096.19	172,864.64	99.87	120,496.03	69.61
Veg Assoc No. 502	46,196.11	46,004.20	99.58	6,859.30	14.85
Beard vegetation associations - Bioregion					

Veg Assoc No. 20	1,174,259.17	1,171,630.81	99.78	181,845.19	15.49
Veg Assoc No. 251	58,012.00	57,780.45	99.60	5,411.84	9.33
Veg Assoc No. 502	13,400.95	13,267.08	99.00	6,859.30	51.19

Government of Western Australia (2019)

A.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix D.1), and biological survey information (Biostat, 2020; Ecotec, 2021; JBBC, 2019; 2021; 2024), impacts to the following conservation significant flora and fauna required further consideration.

Species name	Conservation status	Distance of closest record to application area (km)	Suitable habitat features? [Y/N]	Number of known records (total)
<i>Acacia eremophila</i> var. <i>variabilis</i>	3	<50	Y	20
<i>Apatelantha insignis</i>	2	<20	Y	30
<i>Banksia arborea</i>	4	<50	Y	64
<i>Calandrinia kalanniensis</i>	2	<40	N	9
<i>Calandrinia quartzitica</i>	1	<40	Y	14
<i>Calytrix hislopii</i>	3	<45	N	8
<i>Chrysocephalum apiculatum</i> subsp. <i>norsemanense</i>	3	<50	Y	18
<i>Elatine macrocalyx</i>	3	<50	N	8
<i>Eleocharis papillosa</i>	3	<50	N	14
<i>Eucalyptus crucis</i> subsp. <i>crucis</i>	T	<35	N	45
<i>Eucalyptus educta</i>	2	<35	N	46
<i>Eucalyptus formanii</i> subsp. <i>circulata</i>	4	<10	Y	59
<i>Eutaxia nanophylla</i>	3	0	Y	10
<i>Eutaxia rubricarina</i>	3	<45	N	10
<i>Goodenia berringbinensis</i>	4	<10	Y	32
<i>Grevillea erectiloba</i>	4	<45	N	30
<i>Grevillea georgeana</i>	3	<35	Y	65
<i>Grevillea secunda</i>	4	<20	N	31
<i>Homalocalyx grandiflorus</i>	3	<39	Y	16
<i>Hysterobaeckea ochropetala</i> subsp. <i>cometes</i>	3	<25	Y	28
<i>Malleostemon</i> sp. <i>Adelong</i> (G.J. Keighery 11825)	2	<40	Y	4
<i>Menkea draboides</i>	3	<10	Y	10
<i>Mirbelia ferricola</i>	3	<50	Y	41
<i>Myriophyllum lapidicola</i>	T	<35	N	10
<i>Notisia intonsa</i>	3	<45	Y	28
<i>Philothea coateana</i>	3	<45	Y	14
<i>Philothea deserti</i> subsp. <i>brevifolia</i>	3	<50	Y	6
<i>Pterostylis arida</i>	3	<10	N	12
<i>Pterostylis elegantissima</i>	1	<15	N	3
<i>Pterostylis virens</i>	3	<10	N	17
<i>Pterostylis xerampelina</i>	1	<15	N	15
<i>Ptilotus procumbens</i>	1	<45	Y	5
<i>Tecticornia mellarium</i>	1	<35	Y	21
<i>Thryptomene eremaea</i>	2	<45	Y	13
<i>Thysanotus brachyantherus</i>	2	<5	Y	18

Species name	Conservation status	Distance of closest record to application area (km)	Suitable habitat features? [Y/N]	Number of known records (total)
<i>Wurmbea murchisoniana</i>	4	<10	N	36

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

A.4. Fauna analysis table

Species name	Common name	Conservation status	Distance of closest record to application area (km)	Suitable habitat features? [Y/N]
<i>Aspidites ramsayi</i> (southwest subpop.)	woma (southwest subpop.)	P1	<45	N
<i>Dasyurus geoffroii</i>	chuditch, western quoll	VU	<50	N
<i>Falco peregrinus</i>	Peregrine falcon	OS	<15	Y
<i>Jalmenus aridus</i>	Inland hairstreak, desert blue butterfly	P1	<50	Y
<i>Leipoa ocellata</i>	malleefowl	VU	<10	Y
<i>Phascogale calura</i>	red-tailed phascogale, kenngoor	CD	<30	N
<i>Thinornis rubricollis</i>	hooded plover, hooded dotterel	P4	<35	N
<i>Tringa nebularia</i>	Common greenshank, greenshank	MI	<30	N

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, OS: Other Specially Protected, MI: Migratory

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain locally or regionally significant flora, fauna, habitats or assemblages of plants. Flora surveys did not recorded any conservation significant flora or fauna within the application area, including the amendment area (Biostat, 2020; Ecotec, 2021; JBBC, 2019; 2021; 2024).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8854/2)</p>	No
<p><u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."</p> <p><u>Assessment:</u></p> <p>No conservation significant fauna species have been recorded within the application area and all fauna species recorded were considered relatively common and widespread (Biostat, 2020; Ecotec, 2021; JBBC, 2024). No evidence of Malleefowl (<i>Leipoa ocellata</i>, VU) was recorded during the survey of the amendment area, however the amendment application area falls within the known distribution range for the species and contains suitable habitat (Biostat, 2020; Ecotec, 2021; JBBC, 2024). Hence, continued implementation of the existing Malleefowl management condition is recommended, to minimise the risk of impacting on the species.</p>	<p>May be at variance</p> <p>(as per CPS 8854/2)</p>	No
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u></p>	<p>Not likely to be at variance</p> <p>(as per CPS 8854/2)</p>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
There are no known records of Threatened flora within the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (JBBC, 2019; 2021; 2024; GIS Database).		
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>There are no known Threatened Ecological Communities (TECs) located within the application area and the flora and vegetation surveys did not identify any TECs (JBBC, 2019; 2021; 2024; GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8854/2)</p>	<p>No</p>
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	<p>Not at variance</p> <p>(as per CPS 8854/2)</p>	<p>No</p>
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>There are no conservation areas mapped within the application area (GIS Database). Land adjacent to the application area is mapped as DBCA interested land which is proposed for conservation (ex Credo) (GIS Database). The additional clearing of 13.07 hectares of vegetation is not likely to impact this conservation area, however any potential impacts may be managed by continued implementation of the weed management condition.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8854/2)</p>	<p>No</p>
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>While the mapped vegetation types have not been identified as riparian, potential local impacts to vegetation growing in association with the drainage lines can be minimised by the continued implementation of a watercourse management condition.</p>	<p>At variance</p> <p>(as per CPS 8854/2)</p>	<p>No</p>
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are moderately susceptible to water erosion (Pringle et al., 1994). Potential land degradation impacts as a result of the proposed clearing may be minimised by the continued implementation of the staged clearing condition and the watercourse management condition.</p>	<p>May be at variance</p> <p>(as per CPS 8854/2)</p>	<p>No</p>
<p><u>Principle (i):</u> <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.”</i></p> <p><u>Assessment:</u></p> <p>There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. The proposed clearing is unlikely to result in significant changes to surface water flows.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8854/2)</p>	<p>No</p>
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p>	<p>Not likely to be at variance</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.	(as per CPS 8854/2)	

Appendix C. Vegetation condition rating scale

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

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

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

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

Appendix D. Sources of information

D.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- Clearing Regulations – Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- Interim Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)

- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

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

D.2. References

- Biostat (2020) Vegetation Clearing – Fauna Assessment. Report prepared for Ora Banda Mining, by Biostat Pty Ltd, March 2020.
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4. Glossary

Acronyms:

BC Act *Biodiversity Conservation Act 2016*, Western Australia
CPS 8854/3

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
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 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	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

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

T **Threatened species:**

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

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

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

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

CR **Critically endangered species**

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

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.

EN **Endangered species**

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

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.

VU **Vulnerable species**

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

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.

Extinct Species:

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

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

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild.

Specially protected species:

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

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

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

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

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

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

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

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

P Priority species:

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

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

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

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

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

P1 Priority One - Poorly-known species – known from few locations, none on conservation lands

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 Priority Two - Poorly-known species – known from few locations, some on conservation lands

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, for example, national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

P3 Priority Three - Poorly-known species – known from several locations

Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. These species need further survey.

P4 Priority Four - Rare, Near Threatened and other species in need of monitoring

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as a conservation dependent specially protected species.

(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.

(d) Other species in need of monitoring.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.
- (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.
- (e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
- (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
- (j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.