Department of Mines, Petroleum and Exploration

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	11203/1
Permit type:	Purpose permit
Applicant name:	FMR Investments Pty Ltd
Application received:	28 July 2025
Application area:	41 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical removal
Tenure:	Mining Lease 15/26
Location (LGA area):	Shire of Coolgardie
Colloquial name:	Gunga Gold Project

1.2. Description of clearing activities

FMR Investments Pty Ltd proposes to clear up to 41 hectares of native vegetation within a boundary of approximately 101 hectares, for the purpose of mineral production and associated activities. The project is located approximately 5 kilometres northeast of Coolgardie, within the Shire of Coolgardie.

The application is to allow for mineral production and associated activities.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	5 March 2026
Decision area:	41 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Mines, Petroleum and Exploration (DMPE) advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix E), supporting information provided by the applicant, including the results of a flora and vegetation survey (Appendix D), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3). The Delegated Officer also took into consideration the purpose of the clearing to undertake mineral production and associatied activities.

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- the loss of native vegetation that is suitable habitat for central long-eared bat (*Nyctophilus major tor*);
- the loss of native vegetation that is suitbale habtiat for inland hairstreak butterfly (*Jalmenus aridus*); and
- potential land degradation in the form of wind and water erosion.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (Section 3.1), the Delegated Officer determined the proposed clearing can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat

ahead of the clearing activity;

- commence permitted activities no later than three months after undertaking clearing to reduce the risk of wind erosion;
- engage a botanist to conduct a targeted flora survey for the presence of priority flora to clearing and maintain a 10 metre buffer of identified priority flora; and
- a fauna management (inland hairstreak butterfly) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat and inland hairstreak butterfly individuals, and no clearing within 50 metres of inland hairstreak butterfly host plants.

2. Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)

Relevant agreements (treaties) considered during the assessment include:

- Japan-Australia Migratory Bird Agreement
- China-Australia Migratory Bird Agreement
- Republic of Korea-Australia Migratory Bird Agreement

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 - Terrestrial Vertebrate Fauna surveys for Environmental Impact Assessment (EPA & DEC, 2010)
- Technical guidance – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment (EPA & DPaW, 2015)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values. The Mining Proposal submitted by the proponent outlines measures implemented to minimise impacts to conservation significant species (FMR Investments, 2025). In particular, the clearing of land containing suitable habitat for malleefowl has been minimised, as well as avoiding existing malleefowl mounds. Vehicle movements will also be managed to minimise the potential for roadkill (FMR Investments, 2025).

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (Appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles identified that the impacts of the proposed clearing present a risk to biological values (fauna). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (flora) - Clearing principle (a) and (c)

Assessment

A level 1 flora and vegetation survey was conducted on 22 May 2016 by Botanica Consulting over the application area (Botanica Consulting, 2016). One Threatened flora species and 21 priority flora species were recorded within 20 kilometres of the application area, several with suitable habitat within the application area (Botanica Consulting, 2016).

The Threatened flora species (*Gastrolobium graniticum*) was recorded approximately 10 kilometres from the application area (GIS Database). This species is associated with margins of granite outcrops, especially along drainage lines, on sandy soils in open woodland, in association with *Allocasuarina huegeliana*, *Acacia lasiocalyx* and *Eucalyptus eremophila* which are not

present within the application area (Botanica Consulting, 2016). Given there is no suitable habitat within the application area it is unlikely this species will be present and significantly impacted by the proposed clearing.

There is suitable habitat for several conservation significant flora species within the application area.

***Eremophila caerulea* subsp. *merrallii*, Priority 4**
Eremophila caerulea subsp. *merrallii* is a spreading or sprawling shrub that grows in undulating plains of *Eucalyptus salubris* / *transcontinentalis* / *salmonophloia* over *Santalum acuminatum* (WA Herbarium, 1998-). The species is best suited to sand, clay or loamy soil. The 23 Western Australian Herbarium (1998-) records are distributed across the Avon Wheatbelt, Coolgardie and Mallee IBRA bioregions. These records were collected between 1921 and 2013, with several records collected prior to 2005. There is suitable habitat within the application area in the form of Low woodland of *Eucalyptus salmonophloia/ E. clelandii* over low scrub of *Eremophila interstans/ Santalum acuminatum/ Atriplex nummularia* and dwarf scrub of *Atriplex vesicaria* on sand-loam plain. Despite this, the habitat present within the application area is well represented in surrounding areas, therefore the proposed clearing is not likely to have a significant impact on the species.

***Eremophila praecox*, Priority 2**
Eremophila praecox is a broom-like shrub that grows in red/brown sandy loam and undulating plains (WA Herbarium, 1998-). The 52 Western Australian Herbarium (1998-) records are distributed across the Coolgardie, Murchison and Nullarbor IBRA bioregions. These records were collected between 1986 and 2024, with the vast majority of records collected since 2002. There is suitable habitat within the application area in the form of Low woodland of *Eucalyptus salmonophloia/ E. clelandii* over low scrub of *Eremophila interstans/ Santalum acuminatum/ Atriplex nummularia* and dwarf scrub of *Atriplex vesicaria* on sand-loam plain. Despite this, the habitat present within the application area is well represented in surrounding areas, therefore the proposed clearing is not likely to have a significant impact on the species.

***Eremophila veronica*, Priority 3**
Eremophila veronica is a spreading erect shrub that grows in stony clay, clay loam and lateritic breakaways (WA Herbarium, 1998-). The 16 Western Australian Herbarium (1998-) records are distributed across the Coolgardie and Murchison IBRA bioregions. These records were collected between 1895 and 2017, with five records collected since 2004. There is suitable habitat within the application area in the form of Low woodland of *Eucalyptus salmonophloia/ E. clelandii* over low scrub of *Eremophila interstans/ Santalum acuminatum/ Atriplex nummularia* and dwarf scrub of *Atriplex vesicaria* on sand-loam plain. Despite this, the habitat present within the application area is well represented in the surrounding areas, therefore the proposed clearing is not likely to have a significant impact on the species.

Phlegmatospermum eremaeum, Priority 3
Phlegmatospermum eremaeum is a prostrate to spreading annual herb that grows in stony loam with Eucalyptus transcontinentalis and salmonophloia tall open woodland (WA Herbarium, 1998-). The 19 Western Australian Herbarium (1998-) records are distributed across the Avon Wheatbelt, Coolgardie, Esperance Plains, Hampton, Mallee and Nullarbor IBRA bioregions. These records were collected between 1899 and 2024, with 6 records collected since 2006. There is suitable habitat within the application area in the form of Low woodland of *Eucalyptus salmonophloia/ E. clelandii* over low scrub of *Eremophila interstans/ Santalum acuminatum/ Atriplex nummularia* and dwarf scrub of *Atriplex vesicaria* on sand-loam plain. Despite this, the habitat present within the application area is well represented in the surrounding areas, therefore the proposed clearing is not likely to have a significant impact on the species.

***Notisia intonsa*, Priority 3**
Notisia intonsa is a small herb covered in grey hairs that grows in brown clay loam (WA Herbarium, 1998-). The 29 Western Australia Herbarium (1998-) records are distributed across the Avon Wheatbelt, Coolgardie, Esperance Plains, Mallee and Murchison IBRA bioregions. These records were collected between 1955 and 2023, with the majority of records collected since 1994. There is suitable habitat within the application area in the form of Low woodland of *Eucalyptus salmonophloia/ E. griffithsii/ E. ravida* over open scrub of *Eremophila scoparia* and *Atriplex nummularia* over dwarf scrub of *Atriplex vesicaria* on sand-loam plain/ low slope. Despite this, the habitat present within the application area is well represented in the surrounding areas, therefore the proposed clearing is not likely to have a significant impact on the species.

***Acacia coatesii*, Priority 1**
Acacia coatesii is a dense, compact shrub that grows in red-brown shallow sandy clay soils (WA Herbarium, 1998-). The five Western Australian Herbarium (1998-) records are limited to the Coolgardie IBRA bioregion. The records were collected between 1966 and 2013, with all but one record collected since 2012. There is suitable habitat within the application area in the form of Low woodland of *Eucalyptus torquata* over low shrub of *Dodonaea stenozyga* and dwarf scrub of *Acacia erinacea/ Scaevola spinescens/ Westringia rigida* on rocky hillslope. Due to the age of the flora surveys and the potential impact clearing may have on this species, a targeted flora survey is necessary.

***Austrostipa turbinata*, Priority 3**
Austrostipa turbinata is a perennial grass that grows in tall Mallee woodland with open shrubs and sparse grasses and Eucalyptus open woodland with red rocky loam (WA Herbarium, 1998-). The 25 Western Australian Herbarium (1998-) records are distributed across the Avon Wheatbelt, Coolgardie, Esperance Plains and Mallee IBRA bioregions. The records were collected between 1980 and 2020, with the majority of records collected after 2000. There is suitable habitat within the application area in the form of Eucalyptus woodlands. Despite this, the species is well distributed across surrounding areas and throughout the Avon Wheatbelt, therefore the proposed clearing is not likely to have a significant impact on the species.

***Lepidosperma* sp. Kambalda (A.A. Mitchell 5156), Priority 2**
Lepidosperma sp. Kambalda (A.A. Mitchell 5156) is a tussocking sedge with shiny flowering stems and serrated leaf margins that grows in tall shrubland of *Acacia acuminita* and open shrubland of Acacia (WA Herbarium, 1998-). The two Western Australian Herbarium (1998-) records are limited to the Coolgardie IBRA bioregion. The records were collected in 1997 and 2013. There is suitable habitat within the application area in the form of Low woodland of *Eucalyptus salmonophloia/ E. clelandii* over low scrub of *Eremophila interstans/ Santalum acuminatum/ Atriplex nummularia* and dwarf scrub of *Atriplex vesicaria* on

sand-loam plain. Due to the age of the flora surveys and the potential impact clearing may have on this species, a targeted flora survey is necessary.

***Lepidosperma* sp. Parker Range (N. Gibson & M. Lyons 2094), Priority 1**
Lepidosperma sp. Parker Range (N. Gibson & M. Lyons 2094) is a perennial herb/sedge that grows in mallee shrublands and Eucalyptus woodland with mixed shrub understorey (WA Herbarium ,1998-). The seven Western Australian Herbarium (1998-) records are distributed across the Avon Wheatbelt and Coolgardie IBRA bioregions. The records were collected between 1994 and 2018. There is suitable habitat within the application area in the form of Eucalyptus woodland. Due to the age of the flora surveys and the potential impact clearing may have on this species, a targeted flora survey is necessary.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing can be managed by implementing flora management conditions.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- avoid, minimise to reduce the impacts and extend of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- prior to any clearing, a botanist shall be engaged to conduct a targeted flora survey for the presence of priority flora and avoided with a 10-metre buffer.

3.2.2. Biological values (fauna) - Clearing principle (b)

Assessment

A basic fauna assessment was conducted on 19 and 20 May 2016 (Bamford, 2016). The following five vegetation and soil associations were identified:

- Undulating gravelly, loam rises supporting mixed Eucalypt woodland and Mallee (dominated by *Eucalyptus clelandii*, *Eucalyptus celastroides*, *Eucalyptus griffithsii and Eucalyptus torquata*) with scattered *Melaleuca pauperiflora, Santalum spicatum* and *Olearia muelleri*;
- Greenstone hills supporting dense shrublands and thickets of Acacia (*Acacia quadrimarginea* and *Acacia burkittii*) and mixed shrubs including *Eremophila oldfieldii*, *Dodenia lobulata*, *Alyxia buxifolia* and *Scaevola spinescens*;
- Dense Acacia shrublands on Greenstone hills;
- Loam flats supporting open Eucalypt Woodland and Mallee comprising *Eucalyptus salubris, Eucalyptus clelandii* with an understorey dominated by *Eremophila scoparia*;
- *Atriplex nummularia*, *Senna artemisioides, Santalum spicatum* and *Olearia muelleri*; Mixed Eucalypt woodland on gravelly rise.

These fauna habitats are common and widespread in the local area and broader region (Bamford, 2016).

During the fauna survey, no species of conservation significance were observed (Bamford, 2016). However, several species of conservation significance have been identified as potentially utilising and/or occurring within the application area, discussed below.

Malleefowl (*Leipoa ocellata*) occur in a wide range of habitats generally consisting of a sandy substrate with trees between 3 and 8 metres in height and a shrub layer providing horizontal cover (DCCEEW, 2024). The large ground-dwelling bird favours long unburnt and ungrazed mallee and constructs nests in sandy soils and leaf litter by building large mounds used for egg incubation (DCCEEW, 2024). They are also found in shrublands dominated by Acacia and occasionally in woodlands dominated by eucalypts (Botanica Consulting, 2022). There are suitable habitat features for malleefowl throughout the application area, particularly in the form of Acacia and Eucalypt low open woodlands. A targeted Threatened fauna survey for malleefowl was conducted on 19 September 2022 (Botanica Consulting, 2022). The survey found 14 records of malleefowl within 20 kilometres of the application area as well as several inactive mounds within the application area (Botanica Consulting, 2022). Given the age and inactive state of the existing mounds within the application area, the proposed clearing is unlikely to have a significant impact on the species.

The Central long-eared bat (*Nyctophilus major tor*) inhabits dry woodlands and shrublands in arid and semi-arid regions (Menkhorst & Knight, 2011). It roosts mostly in tree hollows and occupies eucalypts and woodlands with prominent shrub strata and around the fringes of sheoak and wattle thickets (DBCA, 2024). The Central long-eared bat is also known to roost under loose bark and in other crevices, and forages low on the ground amongst foliage within the shrub layer (Menkhorst & Knight, 2011). The woodlands and large hollow-bearing trees within the application area provide suitable habitat for the species (Botanica Consulting, 2022). The fauna survey undertaken by Bamford Consulting Ecologists (2016) noted that there was a potential resident population within the application area. As a result of the broad habitat description for the species and additional records both within and beyond 100 kilometres from the application area, DBCA (2024) advice determined that the proposed clearing is not likely to significantly impact foraging or breeding habitat for this species in the local area.

Inland hairstreak butterfly (*Jalmenus aridus*) is known from two locations near Kalgoorlie and has been recorded from another 10 locations within an area extending approximately 121 kilometres north to south by 42 kilometres east to west (Eastwood et al., 2023). The preferred habitat for this species is open woodland with mature *Senna artemisioides* ssp. *filifolia* and mixed flowering shrubs (*Eremophila*, *Scaevola* and *Maireana*) with open areas of well drained exposed ground adjoining host plants (Eastwood et al., 2023). Inland hairstreak butterfly caterpillars feed in the flowers from *Senna artemisioides* ssp. *filifolia*. It also

has a symbiotic relationship with the ant species *Froggattella kirbii* (Eastwood et al., 2023). The application area occurs within a mapped potential habitat area for inland hairstreak butterfly, particularly occurring in the form of *Senna artemisioides* ssp. *filifolia* which occurs in Low woodland of *Acacia quadrimarginea* over scrub of *Acacia* sp. narrow phyllode and low scrub of *Dodonaea lobulata/ Senna artemisioides* subsp. *filifolia/ Ptilotus obovatus* on rocky hillslope. Botanica Consulting (2016) previously considered inland hairstreak butterfly however, the information relating to this species has been updated since the last fauna survey was conducted over the application area (Eastwood et al., 2023). Potential impacts to inland hairstreak butterfly can be minimised with the implementation of a pre-clearance survey condition.

The Arid bronze azure butterfly (ABAB) has a severely fragmented and restricted geographic distribution across two remaining subpopulations in Western Australia. They are known to have a complex dependency on the co-occurring sugar ant (*Camponotus* sp. nr. *terebrans*) to complete their lifecycle, with ABAB larvae living entirely in the sugar ants nest during their development (WABSI, 2022). The preferred habitat for ABAB is described as vegetation of mature mixed gimlet (*Eucalyptus salubris*) and salmon gum (*Eucalyptus salmonophloia*) woodlands on red-brown loam soils, with an open understorey (DBCA, 2020). A targeted Threatened fauna survey for ABAB was conducted on 19 September 2022 (Botanica Consulting, 2022). The survey assessed 39 randomly sampled Eucalyptus trees and found no host ants, concluding that it is unlikely that ABAB would be present in the area (Botanica Consulting, 2022). It was determined that the proposed clearing is unlikely to have a significant impact on this species.

Several conservation significant species have been recorded within 20 kilometres of the application area, however, there is a low likelihood of occurrences for many of these species including common sandpiper, common greenshank, grey tattler and sharp-tailed sandpiper. While the application area contains some potentially suitable habitat for the remaining bird species, it is unlikely that these species will be significant impacted at a regional level. However, it is recommended that trees containing hollows be inspected prior to clearing to avoid clearing any potential roosting or nesting habitat. Local impacts can be minimised with the implementation of a directional clearing condition to allow terrestrial fauna to move into adjacent habitat.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on potentially suitable conservation significant fauna habitat can be managed by implementing a pre-clearance fauna condition for central long eared bat, a pre-clearance fauna condition for inland hairstreak butterfly and a directional clearing condition.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat head of the clearing activity; and
- a fauna management (inland hairstreak butterfly) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat and inland hairstreak individuals, and no clearing within 50 metres of inland hairstreak butterfly host plants.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 9 October 2026 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC2017/007 – Marlinyu Ghoorlie) over the area under application (DPLH, 2026). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. 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, 2026). 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 Programme of Work approved under the *Mining Act 1978*
- A Mining Development and Closure Proposal approved under the *Mining Act 1978*

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

End

Appendix A. Site characteristics

A.1. Site characteristics

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td>Local context</td><td>The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by landscape and vegetation of the Coolgardie bioregion. It is part of the existing Gunga Project (Botanica Consulting, 2022; GIS Database).</td></tr>
<tr><td>Ecological linkage</td><td>According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).</td></tr>
<tr><td>Conservation areas</td><td>The application area is not within any known or mapped conservation areas. The closest record is the Kangaroo Hills Timber Reserve located approximately 8 kilometres southwest of the application area (GIS Database).</td></tr>
<tr><td>Vegetation description</td><td>The vegetation of the application area is broadly mapped as the following Beard vegetation association:
9: Medium woodland; coral gum (E. torquata) and goldfields blackbutt (E. lesouefii) (Botanica Consulting, 2016; GIS Database).
A flora and vegetation survey was conducted over the application area by Botanica Consulting during May, 2016. The following vegetation associations were recorded within the application area (Botanica Consulting, 2016):

Rocky Hillslope (Acacia Forests and Woodlands): Low woodland of Acacia quadrimarginea over scrub of Acacia sp. narrow phyllode and low scrub of Dodonaea lobulata/ Senna artemisioides subsp. filifolia/ Ptilotus obovatus on rocky hillslope.

Rocky Hillslope (Eucalypt Woodlands): Low woodland of Eucalyptus torquata over low shrub of Dodonaea stenozyga and dwarf scrub of Acacia erinacea/ Scaevola spinescens/ Westringia rigida on rocky hillslope.

Sand-Loam Plain: Low woodland of Eucalyptus salmonophloia/ E. clelandii over low scrub of Eremophila interstans/ Santalum acuminatum/ Atriplex nummularia and dwarf scrub of Atriplex vesicaria on sand-loam plain.

Sand-Loam Plain: Low woodland of Eucalyptus ravida over low scrub of Eremophila dempsteri over dwarf shrub of Acacia erinacea on sand-loam plain.

Sand-Loam Plain/ Low Slope: Low woodland of Eucalyptus salmonophloia/ E. griffithsii/ E. ravida over open scrub of Eremophila scoparia and Atriplex nummularia over dwarf scrub of Atriplex vesicaria on sand-loam plain/ low slope.

Sand-Loam Plain/ Low Slope: Low woodland of Eucalyptus clelandii over open scrub of Exocarpos aphyllus/ Eremophila oldfieldii subsp. oldfieldii and open dwarf scrub of Acacia erinacea/ Scaevola spinescens on sand-loam plain/ low slope.

Representative photos can be found in Appendix D.</td></tr>
<tr><td>Vegetation condition</td><td>The vegetation survey and aerial imagery (Botanica Consulting, 2015) indicate the vegetation within the proposed clearing area is in Very Good, Good and Completely Degraded condition (Botanica Consulting, 2015; GIS Database).</td></tr>
<tr><td>Climate and landform</td><td>The application area is located in an arid to semi-arid zone with an average rainfall of 270.7 millimetres (BoM, 2026). Rainfall occurs predominantly in winter (Bamford, 2016).</td></tr>
<tr><td>Soil description</td><td>The soils within the application area are broadly mapped as the following (DPIRD, 2026):
<table>
<tr><th>System</th><th>Description</th></tr>
<tr><td>265Co – Coolgardie system</td><td>Uplands and undulating plains associated with ultramafic greenstones, supporting eucalypt woodlands and halophytic shrublands.</td></tr>
<tr><td>265Gm – Gumland system</td><td>Extensive pedeplains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys.</td></tr>
<tr><td>265Kw – Kanowna system</td><td>Level to gently inclined pedeplains, gently undulating stony plains and prominent drainage foci supporting eucalypt woodlands with saltbush low shrubs.</td></tr>
</table></td></tr>
<tr><td>Land degradation risk</td><td>The application area lies within the Coolgardie, Gumland and Kanowna land systems (DPIRD, 2026; GIS Database).</td></tr>
</table>

Characteristic	Details
	The Coolgardie land system is described as uplands and undulating plains associated with ultramafic greenstones, supporting eucalypt woodlands and halophytic shrublands. Where not protected by a stony mantle, footslopes and valley floors are susceptible to water erosion, particularly where perennial shrub cover is substantially reduced and/or the soil surface is disturbed (Waddell and Galloway, 2023). The Gumland land system is described as alluvial plains, supporting eucalypt woodlands and halophytic shrub understoreys. This land system is susceptible to erosion if perennial shrub cover is substantially reduced, as are footslopes if protective mantles are disturbed (Waddell and Galloway, 2023). The Kanowna land system is described as undulating stony plains on metasedimentary and felsic volcaniclastic rocks with saline drainage tracts, supporting scattered eucalypt woodlands and halophytic shrublands. This land system is susceptible to water erosion.
Waterbodies	The desktop assessment and aerial imagery indicated that one minor, non-perennial watercourse transects the area proposed to be cleared (GIS Database). There are no permanent watercourses or waterbodies within the application area (GIS Database).
Hydrogeography	The application area is located within the Goldfields Groundwater Area proclaimed under the *Rights in Water and Irrigation Act* 1914 (GIS Database). The closest Public Drinking Water Source Area is Broad Arrow Dam Catchment Area approximately 50 kilometres north of the application area (GIS Database). There are no Wetlands of International Importance or Nationally Important Wetlands that occur within the application area or in the local surrounds (20 kilometres) (GIS Database). The mapped groundwater salinity within the application area is between approximately 14,000 and 34,000 milligrams per litre total dissolved solids which is described as saline (GIS Database). There are some areas of the surrounding area that have a mapped groundwater salinity above 35,000 milligrams per litre total dissolved solids (GIS Database).
Flora	The desktop assessment located 22 conservation significant flora species, including one Threatened flora species, within 20 kilometres of the application area (GIS Database). The nearest record is located approximately 4 kilometres from the application area (GIS Database).
Ecological communities	The application area is not within a Threatened Ecological Community (GIS Database). The closest Threatened Ecological Community is the Emu Land System located approximately 60 kilometres northeast of the application area (GIS Database).
Fauna	The desktop assessment located eight conservation significant fauna species within 20 kilometres of the application area (GIS Database). The closest record is within 1 kilometre of the application area (GIS Database).
Fauna habitat	A basic fauna and habitat survey was conducted over the application area by Bamford Consulting Ecologist (2016) on 19 and 20 May 2016. The following vegetation associations were recorded within the application area: • Undulating gravelly, loam rises supporting mixed Eucalypt woodland and Mallee (dominated by *Eucalyptus clelandii*, *Eucalyptus celastroides*, *Eucalyptus griffithsii and Eucalyptus torquata*) with scattered *Melaleuca pauperiflora, Santalum spicatum* and *Olearia muelleri*; • Greenstone hills supporting dense shrublands and thickets of Acacia (*Acacia quadrimarginea* and *Acacia burkittii*) and mixed shrubs including *Eremophila oldfieldii*, *Dodenia lobulata*, *Alyxia buxifolia* and *Scaevola spinescens*; • Loam flats supporting open Eucalypt Woodland and Mallee comprising *Eucalyptus salubris, Eucalyptus clelandii* with an understorey dominated by *Eremophila scoparia*, *Atriplex nummularia*, *Senna artemisioides, Santalum spicatum* and *Olearia muelleri*; • Dense Mallee thicket of *Eucalyptus celastroides* over *Senna artemisioides* and *Olearia* • Drainage lines supporting dense fringing Acacia shrublands and *Eucalyptus salubris*. Representative photographs of these habitats are available in Appendix D.

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 - Coolgardie	12,912,204.35	12,648,491.39	97.96	2,114,349.37	16.37
Beard vegetation associations					

- State					
Veg Assoc No. 9	240,509.33	235,161.94	97.78	18,984.28	7.89
Beard vegetation associations - Bioregion					
Veg Assoc No. 9	240,441.99	235,100.97	97.78	18,984.28	7.90

Government of Western Australia (2019)

A.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix E.1), and biological survey information, impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Likelihood of occurrence
Eremophila caerulea subsp. *merrallii*	P4	Y	<5	23	Possible – discussed in Section 3.2.1
Acacia websteri	P1	N	<10	21	Unlikely
Chrysocephalum apiculatum subsp. *norsemanense*	P3	N	<10	18	Unlikely
Eremophila praecox	P2		<10	52	Possible – discussed in Section 3.2.1
Eremophila veronica	P3	Y	<10	16	Possible – discussed in Section 3.2.1
Gastrolobium graniticum	T	N	<10	43	Unlikely – discussed in Section 3.2.1
Grevillea georgeana	P3	N	<10	66	Unlikely
Lepidium merrallii	P2	N	<10	3	Unlikely
Phlegmatospermum eremaeum	P3	Y	<10	19	Possible – discussed in Section 3.2.1
Thryptomene planiflora	P1	N	<10	23	Unlikely
Dampiera plumosa	P1	N	<15	7	Unlikely
Hakea rigida	P2	N	<15	19	Unlikely
Notisia intonsa	P3	Y	<15	29	Possible – discussed in Section 3.2.1
Phebalium appressum	P1	N	<15	5	Unlikely
Acacia coatesii	P1	Y	<20	5	Possible – discussed in Section 3.2.1
Allocasuarina eriochlamys subsp. *grossa*	P3	N	<20	28	Unlikely
Alyxia tetanifolia	P3	N	<20	14	Unlikely
Austrostipa frankliniae	P2	N	<20	9	Unlikely
Austrostipa turbinata	P3	Y	<20	25	Possible – discussed in Section 3.2.1
Calandrinia lefroyensis	P1	N	<20	11	Unlikely
Eucalyptus websteriana Maiden	P1	N	<20	70	Unlikely
Lepidosperma sp. Kambalda *(A.A. Mitchell 5156)*	P2	Y	<20	2	Possible – discussed in Section 3.2.1

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

A.4. Fauna analysis table

The following conservation significant fauna species have been recorded within 20 kilometres of the application area (GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (local area)	Likelihood of occurrence
Leipoa ocellata (malleefowl)	VU	Y	<5	20	Unlikely – discussed in Section 3.2.2
Nyctophilus major tor (central long eared bat)	P3	Y	<10	1	Possible – discussed in Section 3.2.2
Actitis hypoleucos (common sandpiper)	MI	N	<10	3	Unlikely
Jalmenus aridus (inland hairstreak butterfly)	P2	Y	<10	15	Possible – discussed in Section 3.2.2
Tringa nebularia (common greenshank)	MI	N	<10	2	Unlikely
Ogyris petrina (arid bronze azure butterfly)	CR	Y	<20	16	Unlikely – discussed in Section 3.2.2
Tringa brevipes (grey-tailed tattler)	MI	N	<20	1	Unlikely
Calidris acuminata (sharp-tailed sandpiper)	MI	N	<20	2	Unlikely

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, MI: migratory, CD: conservation dependent, OS: other specially protected, P: priority

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared contains potential habitat for conservation significant flora and fauna species.	May be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The area proposed to be cleared contains potential habitat for conservation significant fauna.	May be at variance	Yes *Refer to Section 3.2.2, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: There is a record of *Gastrolobium graniticum* in the local surrounds, however no suitable habitat was identified within the application area.	Not likely to be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (Botanica Consulting, 2016).	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment:	Not at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
The extend of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001; Government of Western Australia; 2019). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (GIS Database).		
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: There are no permanent watercourses or wetlands within the are proposed to be cleared (GIS Database). There is one minor, non-perennial watercourse with the application area which drains into a non-perennial lake east southeast of the application area (GIS Database). No riparian vegetation was identified within the application area (Botanica Consulting, 2016). As a result, the proposed clearing is unlikely to have an impact on watercourses or wetlands.	At variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The application area lies within the Coolgardie, Gumland and Kanowna land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by Department of Primary Industries and Regional Development. The land systems within the application area are generally prone to erosion, particularly if perennial shrub cover is substantially reduced. The clearance of native vegetation should be staged where possible as to minimise the area of land exposed to land degradation at any one time. Potential impacts to native vegetation as a result of land degradation can be minimised by the continued implementation of a staged clearing condition.	May be at variance	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The closest Public Drinking water Source Area (PDWSA) is located approximately 50 kilometres north of the application area (GIS Database). As a result, the proposed clearing is unlikely to affect salinity, pH levels, or nutrient levels of the PDWSA. The ephemeral creek line within the application area is non-perennial, flowing briefly after significant rainfall (GIS Database). Due to the current levels of groundwater salinity in the application area, it is unlikely that the proposed clearing would result in an incremental increase in groundwater salinity, nor cause deterioration in the quality of underground water. As a result, significant impacts to surface water and underground water are considered unlikely.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The climate in the region is arid to semi-arid with an annual rainfall of 200 to 300 millimetres mainly over winter, with occasional rainfall in summer. Between 14,000 and 35,000 millimetres evaporate from the region every year, significantly higher than the annual rainfall recorded, suggesting a low risk of flooding (Commonwealth of Australia, 2006). Seasonal drainage lines are common in the region and temporary	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
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.		

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. Photographs of the vegetation

The following photographs represent the dominant vegetation communities in the application area (Botanica Consulting, 2016).

Figure 1. Rocky hillslopes, acacia forests and woodlands (RH-AFW1)

Figure 2. Rocky hillslope, eucalypt woodlands (RH-EW1)

Figure 3. Sand-loam plain, eucalypt woodlands (SLP-EW1)

Figure 4. Sand-loam plain, eucalypt woodlands (SLP-EW2)

Figure 5. Sand-loam plain / low slope, eucalypt woodlands (SLP/LS-EW1)

Figure 6. Sand-loam plain / low slope, eucalypt woodlands (SLP/LS-EW12

Appendix E. Sources of information

E.1. GIS datasets

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

- Clearing Instruments Activities (Areas Approved to Clear) (DWER-076)
- Clearing Instruments Conditions (Areas Subject to Conditions) (DWER-077)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Geographic Names (GEONOMA) (LGATE-013)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- IBSA Survey Details (DWER-118)
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Medium Scale Topo Coastal Flat (Polygon) (LGATE-122)
- Medium Scale Topo Contour (Line) (LGATE-015)
- Medium Scale Topo Water (Line) (LGATE-018)
- Medium Scale Topo Water (Polygon) (LGATE-016)
- Mineral Field Boundaries (DMIRS-005)
- Native Title (NNTT) (LGATE-004)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)

- Public Drinking Water Source Areas (DWER-033)
- Reserves (LGATE-227)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Rivers (DWER-036)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Soil Landscape Mapping - Systems (DPIRD-064)
- Soil Landscape Mapping - Zones (DPIRD-017)
- Surface Water Management Areas (DWER-041)
- Surface Water Management Subareas (DWER-042)
- Townsites (LGATE-248)
- WA Now Aerial Imagery
- WRIMS - Groundwater Areas (DWER-085)
- WRIMS - Surface Water Areas (DWER-082)

Restricted GIS Databases used:

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

E.2. References

Bamford Consulting Ecologists (Bamford) (2016) Gunga West Project 2016 Fauna Assessment. Prepared for Metals X Ltd by Bamford Consulting Ecologists, May 2016.

Botanica Consulting (2016) Level 1 Flora and Vegetation Survey of the Gunag Prospect. Prepared for Metals X Ltd by Botanica Consulting, June 2016.

Botanica Consulting (2022) Memorandum: Gunga Gold Project Targeted Threatened Fauna Survey. Prepared for FMR Investments Pty Ltd by Botanica Consulting, September 2022.

Bureau of Meteorology (BoM) (2026) Bureau of Meteorology Website – Climate Data Online, Coolgardie (Number 12018). Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 17 February 2026).

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Commonwealth of Australia (2006) Bureau of Meteorology Website – Average Evaporation, Evaporation: Average Monthly & Annual Evaporation. Bureau of Meteorology. https://www.bom.gov.au/watl/evaporation/ (Accessed 17 February 2026).

Department of Biodiversity, Conservation and Attractions (DBCA) (2020) Guideline for the survey of arid bronze azure butterfly (ABAB) in Western Australia. Available from: Threatened and priority fauna resources | Department of Biodiversity, Conservation and Attractions

Department of Biodiversity, Conservation and Attractions (DBCA) (2024) Advice received in relation to Clearing Permit Application CPS 10572/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, July 2025.

Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2024) National recovery plan for the Malleefowl (Leipoa ocellata). Available from: https://www.dcceew.gov.au/environment/biodiversity/threatened/publications/recovery/malleefowl

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

Department of Planning, Lands and Heritage (DPLH) (2026) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS (Accessed 18 February 2026).

Department of Primary Industries and Regional Development (DPIRD) (2026) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f (Accessed 17 February 2026).

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

Eastwood, R. Jacks, A. Williams, A.A.E. Petersen. L, Cameron, J. (2023) Current distribution, preferred habitat, behaviour, and biology of the Inland Hairstreak, *Jalmenus aridus* Graham & Moulds, 1988 (Lepidoptera: Lycaenidae) in the Eastern Goldfields region of Western Australia. Records of the Western Australian Museum.

Environmental Protection Authority and Department of Environment and Conservation (EPA & DEC) (2010) Technical Guide - Terrestrial Vertebrate Fauna surveys for Environmental Impact Assessment (eds B.M.Hyder, J. Dell and M.A Cowan). Perth, Western Australia.

Environmental Protection Authority & Department of Parks and Wildlife (EPA & DPaW) (2015) *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment – December 2015.* Department of Parks and Wildlife & Environmental Protection Authority.

FMR Investments Pty Ltd (2025) Greenfields Processing Site, Gunga In-Pit Tailings Storage Facility and Silverstar mining Area Mining Proposal, received 29 August 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

Menkhorst, P. and Knight, F. (2011) A field guide to the mammals of Australia: Third Edition. Oxford University Press, Victoria, 2011.

The Western Australian Biodiversity Science Institute (WABSI) (2022) Arid Bronze Azure Butterfly – Workshop Report 2022. The Western Australian Biodiversity Science Institute.

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

Western Australian Herbarium (WA Herbarium) (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dbca.wa.gov.au/ (Accessed 17 February 2026).

Glossary

Acronyms:

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

Definitions:

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

Threatened species

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

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

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

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

CR **Critically endangered species**

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

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

EN **Endangered species**

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

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

VU **Vulnerable species**

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

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

Extinct species

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

EX **Extinct species**

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

EW **Extinct in the wild species**

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

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

Specially protected species

SP **Specially protected species**

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

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

MI **Migratory species**

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

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

migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

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

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

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

OS **Other specially protected species**

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

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

Priority species

P **Priority species**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(d) Other species in need of monitoring.

Principles for clearing native vegetation:

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

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

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

(j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.