



# Clearing Permit Decision Report

## 1. Application details and outcomes

### 1.1. Permit application details

|                       |                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------|
| Permit number:        | 11464/1                                                                                                          |
| Permit type:          | Purpose permit                                                                                                   |
| Applicant name:       | Global Lithium Resources Limited                                                                                 |
| Application received: | 8 February 2026                                                                                                  |
| Application area:     | 875 hectares                                                                                                     |
| Purpose of clearing:  | Mineral production and associated activities                                                                     |
| Method of clearing:   | Mechanical removal                                                                                               |
| Tenure:               | Mining Lease 28/414<br>Miscellaneous Licence 28/86<br>Miscellaneous Licence 28/97<br>Miscellaneous Licence 28/98 |
| Location (LGA area):  | City of Kalgoorlie-Boulder                                                                                       |
| Colloquial name:      | Manna Lithium Project                                                                                            |

### 1.2. Description of clearing activities

Global Lithium Resources Limited (GLR) proposes to clear up to 875 hectares of native vegetation within a boundary of approximately 4,731.9 hectares, for the purpose of mineral production and associated activities (GLR, 2026b; 2026c). The project is located approximately 85 kilometres south-east of Kalgoorlie-Boulder, within the City of Kalgoorlie-Boulder (GIS Database).

The application is to allow for the development of pits, waste dumps, processing facilities, roads, service corridors, borefields, water treatment facilities and an accommodation village for the Manna Lithium Project (GLR, 2026c).

### 1.3. Decision on application and key considerations

|                |                                   |
|----------------|-----------------------------------|
| Decision:      | Grant                             |
| Decision date: | 28 July 2026                      |
| Decision area: | 875 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 B), relevant datasets (Appendix F), supporting information provided by the applicant (Appendix A) including the results of a flora and vegetation survey (Appendix E), the clearing principles set out in Schedule 5 of the EP Act (Appendix C), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

The assessment identified that the proposed clearing may result in:

- potential clearing of priority flora species recorded within the application area;
- potential clearing of conservation significant species that may occur within the application area, however, are unlikely to be significantly impacted at a regional or species level by the proposed clearing;
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- suitable breeding habitat for malleefowl, including the clearing of five mounds;
- potentially suitable habitat for central long-eared bat, however unlikely to be impacted by the proposed clearing;

- potentially suitable foraging and breeding habitat for southern whiteface;
- potentially suitable habitat for inland hairstreak butterfly;
- some potentially suitable habitat for short-range endemic (SRE) invertebrates, subterranean fauna and other conservation significant fauna, however unlikely to be significantly impacted by the proposed clearing;
- potential impacts on vegetation associated with a watercourse and disruption of surface water flows; and
- potential land degradation in the form of wind 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;
- watercourse management (avoid clearing riparian vegetation where practicable, and where a watercourse is to be impacted by clearing the permit holder shall ensure that the existing surface flow is maintained);
- no clearing within 20 metres of priority flora species recorded;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- fauna management (malleefowl condition requiring areas proposed to be cleared between 1 September and 31 January are inspected to identify active (in use) malleefowl mounds, and to maintain a 200 metre buffer around identified active mounds);
- fauna management (malleefowl condition requiring areas proposed to be cleared between 1 February and 31 August are inspected to identify malleefowl mounds, and maintain a 50 metre buffer around identified mounds);
- fauna management (southern whiteface condition requiring areas proposed to be cleared between 1 July and 31 October are inspected to identify active (in use) southern whiteface nests, and to maintain a 10 metre buffer around identified active nests);
- 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 host plants, if individuals are recorded); and
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion.

## 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
- the polluter pays principle

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *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, 2014)
- Procedure: Native vegetation clearing permits (DWER, 2021)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016a)
- Technical guidance – Sampling of short range endemic invertebrate fauna (EPA, 2016b)
- Technical guidance – Terrestrial Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Technical guidance – Subterranean fauna surveys for environmental impact assessment (EPA, 2021)

### 3. Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

The following measures to avoid and minimise clearing and associated impacts were outlined by the applicant and incorporated into the development of the Manna Lithium Project (GLR, 2026c):

- The proposed development envelope has been designed to avoid conservation significant flora and fauna species, where possible. All infrastructure will be located in already disturbed or degraded areas to avoid malleefowl mounds as far as practicable.
- Implementation of a Site Disturbance Permit (SDP), which must be in place prior to the commencement of any ground disturbing work to ensure activities are conducted in accordance with approval conditions.
- Prior to works commencing, a pre-clearing inspection will be conducted by the environmental department to ensure that no impacts to conservation significant fauna occur.
- Prohibiting unauthorised off-track driving onsite.
- Protecting all conservation significant flora, except for any approved disturbance.
- Provision of all site personnel with relevant training on fauna identification and encounters, and SDP training.
- Implementation of weed hygiene practices to prevent the spread of weeds within the project, including:
  - All vehicles and mobile equipment will be inspected and cleaned of vegetation, mud and soil prior to entry to site;
  - Known or suspected weed infestations within the project will be demarcated on a site plan; and
  - A weed identification guide will be developed and supplied to site personnel.
- Implementation of feral animal management for the duration of the project to ensure that native fauna is not impacted by the introduction of feral species.
- Clearing works will be scheduled to avoid the breeding season of conservation significant fauna, where possible.
- All areas cleared will be stripped of vegetation and topsoil, which will be used for mine closure and rehabilitation.
- Progressive rehabilitation will occur throughout the life of the project of all cleared areas, except for proposed open pits.

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

In assessing the application, the Delegated Officer has had regard for the site characteristics (Appendix B) 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 (flora, adjacent flora, fauna and fauna habitat). 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)

###### Assessment

A detailed flora and vegetation survey was conducted over the entire application area by FVC (2025) during April 2023, September 2023 and September 2024.

###### **Recorded conservation significant flora**

Four flora species of conservation significance were recorded within the application area (FVC, 2025). These locations are provided in Appendix E.

*Goodenia jaurdiensis* (P2) was recorded from three locations in the surveyed area (abundance of three) on clay or loamy clay soils in vegetation types AbDIPo and AcDIEg (FVC, 2025). One individual occurs within the application area (site ML108) (FVC, 2025). These records of *Goodenia jaurdiensis* are significant as they were the first occurrence of the species within the Eastern Goldfields Interim Biogeographic Regionalisation for Australia (IBRA) subregion (FVC, 2025; WAH, 1998-). The species is found in red clayey loam soils with laterite, banded iron stone gravel or quartz pebbles on low lying plains and lower slopes (FVC, 2025; WAH, 1998-). Suitable habitat is associated with Eucalyptus low forest or open low woodlands of *Eucalyptus sheathiana*, *Eucalyptus ravidia* and *Eucalyptus celastroides* (FVC, 2025). These individuals represent a significant range extension of approximately 230 kilometres east and may be important for maintaining genetic diversity for the species (WAH, 1998-; GIS Database). With only three known populations of this species, the proposed clearing of the individual within the application area would impact one third of the local population and likely have regional impacts to the species (FVC, 2025; WAH, 1998-; GIS Database).

*Austrostipa vickeryana* (P3) was recorded from three locations in the surveyed area (abundance of three), on red loamy clay, clayey loam and sandy loamy clay in vegetation types EsAhMs and AbSaEt (FVC, 2025). One individual is within the application area (site ML09) (FVC, 2025). The nearest known record is approximately 130 kilometres away from this local population (WAH, 1998-; GIS Database). Clearing of the individual within the application area would impact one third of the local population and likely have regional impacts to the species (FVC, 2025; WAH, 1998-; GIS Database).

*Eremophila arachnoides* subsp. *tenera* (P3) was recorded from two locations in the surveyed area (abundance of two) in vegetation types EsAtEs and EgAbAn (FVC, 2025). One individual is within the application area (site ML86) (FVC, 2025). The species is found on plains in often calcareous soils (FVC, 2025; WAH, 1998-). Clearing of the individual within the application

area would impact half of the local population and potentially have regional impacts to the species (FVC, 2025; WAH, 1998-; GIS Database).

*Melaleuca coccinea* (P3) was recorded from 18 locations in the surveyed area (abundance of 74) in vegetation types AbDIPo, AcDIEg, ElAcMh and EoAhTs, with two locations (no site names), containing a total of 20 individuals being within the application area (FVC, 2025). The species is found in sandy loam soils over granite geology on granite outcrops, sandplains or river valleys (FVC, 2025; WAH, 1998-). These individuals are on the northern limit of the known distribution of this species and may be important for maintaining genetic diversity for the species, however, many individuals exist outside of the area proposed to be cleared (WAH, 1998-; GIS Database). Clearing of the 20 individuals within the application area would impact approximately 27 per cent of the local population and potentially have regional impacts to the species due to the maintenance of genetic diversity (FVC, 2025; WAH, 1998-; GIS Database).

DBCA (2026) advises that priority flora within the application area should be avoided and, additionally, the individuals in close proximity to the application area should also be demarcated for avoidance. The applicant has proposed that all recorded priority flora within the application area (totalling five locations) can be avoided with a buffer to manage risks (GLR, 2026a; 2026c).

#### **Priority flora recorded outside of the application area**

The following priority flora were recorded during the survey, within five kilometres of the application area (FVC, 2025):

- *Grevillea phillipsiana* (P1), recorded in AcDIEg;
- *Lepidosperma lyonsii* (P1), recorded in AcLI;
- *Micromyrtus serrulata* (P3), recorded in AbDIPo, AcDIEg and AcLI;
- *Notisia intonsa* (P3), recorded in AbDIPo; and
- *Stackhousia muricata* subsp. Perennial (W.R. Barker 3641) (P3), recorded in EoAhTs.

These species have the potential to occur within the application area due to suitable habitat. *Lepidosperma lyonsii* was recorded in a vegetation type that does not occur within the application area (AcLI), characterised by a moderate slope with granite outcropping (FVC, 2025). Although vegetation units associated with granite outcropping occur within the application area; AbDIPo, AcDIEg and EoAhTs (FVC, 2025). AcDIEg has similar habitat characteristics to AcLI, including *Acacia collegialis* tall shrubland vegetation on a hill landform with loamy clay soil (FVC, 2025). Although these five species have the potential to occur within the application area, any potential impacts would be reduced because known occurrences are located outside the proposed disturbance area.

#### **Potentially occurring priority flora**

There are six potentially occurring priority flora species within the application area which were not recorded during the flora survey (Appendix B.3; FVC, 2025). However, the survey effort was sufficient and, should these species be present, impacts would likely be at a local level. Two of these species, *Eucalyptus kruseana* (P4) and *Eucalyptus x brachyphylla* (P4), have been previously recorded within the surveyed area (FVC, 2025; GIS Database). Known locations were revisited and targeted searching occurred, and neither species were observed at the time of the survey (FVC, 2025).

#### **Range extensions of recorded flora species**

Of the flora recorded in the surveyed area, 28 are considered to be exhibiting an extension beyond their currently documented range of occurrence (FVC, 2025; WAH, 1998-). Ten of these 28 range extensions are considered significant (FVC, 2025).

#### **Introduced flora**

Twenty-five weed species were recorded within the surveyed area (Appendix E; FVC, 2025). Of these, *Echium plantagineum* is declared as a pest under the *Biosecurity and Agriculture Management Act 2007* (DPIRD, 2026b). None of the weed species are listed as Weeds of National Significance (WoNS) under the EPBC Act (Weeds Australia, 2026). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. The proposed clearing may contribute to the spread of invasive weed species within the application area and negatively impact biodiversity within and adjacent to the application area.

#### Conclusion

Based on the above assessment, the proposed clearing will result in:

- potential clearing of priority flora species recorded within the application area;
- potential clearing of conservation significant species that may occur within the application area, however, are unlikely to be significantly impacted at a regional or species level by the proposed clearing; and
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

#### Conditions

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

- no clearing within 20 metres of priority flora species recorded; and
- take hygiene steps to minimise the risk of the introduction and spread of weeds.

### 3.2.2. Biological values (fauna) - Clearing principles (a) and (b)

#### Assessment

Three fauna surveys were undertaken over the eastern portion of the application area. A basic vertebrate fauna assessment and targeted malleefowl assessment was conducted over approximately 55.6 per cent of the application area by BCE (2024) during April and July 2023 (Appendix E). A short-range endemic (SRE) invertebrate fauna survey and habitat assessment for arid bronze azure butterfly (ABAB) and inland hairstreak butterfly was undertaken by IS (2024) over 40 sites over the same portion of the application area as surveyed by BCE (2024) during May and August 2023 (Appendix E). A baseline subterranean fauna survey was undertaken over approximately half the application area by Bennelongia (2024) from late October to early November 2023.

#### Malleefowl

Malleefowl (*Leipoa ocellata*; VU) are primarily found in semi-arid to arid shrublands and low woodlands (three to eight metres in height) dominated by mallee and associated habitats, such as broombush (*Melaleuca uncinata*) and native pine (*Callitris* spp.) scrub (DCCEEW, 2024). Breeding habitat requires sandy or gravel substrate, abundant leaf litter and a dense canopy cover for the building of a large mound for egg incubation (DCCEEW, 2024). This species favours mallee that has been long unburnt and ungrazed (DCCEEW, 2024).

Nine malleefowl were observed in the fauna survey by BCE (2024) through a combination of field investigations and LiDAR analysis. None of the mounds were active at the time of survey, as the field searches occurred in April and July, which is outside the malleefowl breeding season (September to January) (BCE, 2024; DCCEEW, 2024). No individuals or other signs of very recent presence such as tracks, scats, or feathers were recorded (BCE, 2024). Of the nine mounds recorded, six mounds were within the application area (BCE, 2024):

- two were 'recent' (three to 10 years old, i.e. 2020 to 2013);
- two were 'moderately old' (10 to 50 years old, i.e. 2013 to 1973); and
- two were 'old' (50 years old or greater, i.e. 1973 or older).

The three mounds recorded outside of the application area were 'old' (BCE, 2024). Mapping of the mounds' locations are provided in Appendix E. Malleefowl is therefore considered a known resident of the application area (BCE, 2024). It is possible that the two 'recent' mounds were created by the same individual in different years given their close proximity (BCE, 2024). BCE (2024) suggests that the proposed clearing may impact approximately 50 per cent of the breeding range of one pair of malleefowl, but up to two pairs may be impacted. The applicant proposes to clear five of the six mounds within the application area (Appendix E; BCE, 2024; GLR, 2025a). As malleefowl tend to renovate old mounds rather than construct new mounds each year, each old mound is a potential site for breeding (DCCEEW, 2024). Malleefowl tend to breed in the same area each year and so are generally sedentary (DCCEEW, 2024). Therefore, the presence of mounds confirms the presence of habitat suitable for malleefowl breeding in the application area (FVC, 2025).

Malleefowl in the application area can be considered to be part of an 'important population' as defined by DotE (2013) under the EPBC Act, as they occur at the edge of the species' range, and are in a position within the species' distribution where they may be necessary to maintain genetic connectivity and diversity (BCE, 2024). The proposed clearing is likely to have a significant impact on the species because it would reduce the area of occupancy of an important population, given that the application area contains known breeding habitat (BCE, 2024; DotE, 2013). Given the evidence of recent breeding in the area, there is the potential that breeding may occur in the application area.

#### Central long-eared bat

Central long-eared bat (*Nyctophilus major* tor; P3) inhabits a range of habitats including *Eucalyptus* and *Allocasuarina* woodlands and shrublands in arid and semi-arid regions (Menkhorst and Knight, 2011). The species roosts mostly in tree hollows, but also in crevices and under loose bark (Menkhorst and Knight, 2011). Central long-eared bat forages low on the ground within the shrub layer (Menkhorst and Knight, 2011). The application area provides potential habitat to support this species (Appendix E; BCE, 2024). Although suitable habitat for this species occurs, the habitat is unlikely to be critical, as suitable habitat is widespread, and the central long-eared bat has additional records in the broader area (DBCA, 2024). It is recommended that trees containing hollows be inspected prior to clearing to avoid clearing any potential roosting or breeding habitat.

#### Southern whiteface

Southern whiteface (*Aphelocephala leucopsis*; VU) was listed under the EPBC Act in March 2023 (Commonwealth of Australia, 2008-). Suitable habitat includes open woodlands and shrublands, usually dominated by *Acacia*, *Eucalyptus* or saltbush (*Atriplex* sp.) with an understorey of grasses or shrubs (BirdLife Australia, n.d.; DCCEEW, 2023). This species is known to breed between July and October by building large bulky domed-shaped nests made out of grass, bark and roots within hollows or crevices in trees and low bushes (DCCEEW, 2023). The application area contains potentially suitable foraging and breeding habitat for southern whiteface (Appendix E; BCE, 2024; FVC, 2025). Southern whiteface is considered an expected resident of the application area (BCE, 2024).

Critical habitat for the species includes relatively undisturbed habitats, areas with leaf litter for foraging and shelter, and dead tree hollows and crevices for nesting and roosting (DCCEEW, 2023). As approximately 1.2 per cent of the application area is cleared, the habitats are relatively undisturbed (Appendix E; FVC, 2025). Additionally, approximately 86.6 per cent of the application area consists of *Acacia* and *Eucalyptus* shrubland and woodland vegetation types of Very Good to Excellent Keighery (1994) condition (FVC, 2025). Sites in the *Acacia* and *Eucalyptus* shrubland and woodland vegetation types were described as having up to 85 per cent leaf litter cover (Appendix E; FVC, 2025). Therefore, the application area has the potential to provide important habitat for southern whiteface. It is recommended that areas of critical habitat are not cleared or degraded, as habitat loss and fragmentation are the biggest threat to the species (DCCEEW, 2023). Although there are no records of southern whiteface within 20 kilometres of the application area, this may be due to it being an inconspicuous species (FVC,

2025; GIS Database). Given the presence of suitable breeding habitat and the location of the application area within the known range of the species, it is considered possible that southern whiteface may occur in the application area (DCCEE, 2023).

### Arid bronze azure butterfly

Arid bronze azure butterfly (ABAB) (*Ogyris petrina*; CR) populations are severely fragmented, restricted in geographic range and sensitive to clearing and habitat disturbance (DBCA, 2020). The preferred habitat is described as vegetation of mature mixed gimlet (*Eucalyptus salubris*) and salmon gum (*Eucalyptus salmonophloia*) woodlands, on soils ranging from loamy to sandy, with an open understorey (DBCA, 2020; WABSI, 2022). ABAB has an obligate association with the sugar ant *Camponotus* sp. nr. *terebrans*, associated with smooth-barked *Eucalyptus* woodlands (DBCA, 2020). ABAB larvae live entirely within the nest of the sugar ant species during their development (WABSI, 2022). The most critical factor for habitat occupancy by ABAB is the presence of large colonies of the host ant (WAM, 2026). The application area is 90 kilometres east of the original population at Lake Douglas (WABSI, 2022; GIS Database).

Extensive potential habitat for ABAB was identified within the application area due to the presence of smooth-barked *Eucalyptus* woodland and the host ant (Appendix E; IS, 2024). Consistent with DBCA (2020) guidelines, surveys first target the host ant. *Camponotus* sp. nr. *terebrans* was detected from 28 of the 419 trees assessed, however, only 59 host ant individuals and a single nest were recorded (IS, 2024). Mapping of the recorded host ants and nest is provided in Appendix E. The low abundance of the host ant and associated nests is considered insufficient to support a viable population of ABAB in the region (IS, 2024). Large colonies of the sugar ant are required to support ABAB presence (DBCA, 2020). It was noted that the western section of the application area, approximately 44.4 per cent, was not considered in the survey by IS (2024). Potentially suitable habitat occurs in the unsurveyed area, such as EsAtEs and EsAhMs vegetation types (FVC, 2025). Although extensive areas of potentially suitable habitat occur in the application area, ABAB is unlikely to occur in the surveyed due to the low abundance of the host ant and nests recorded (IS, 2024).

There is a potential for ABAB to occur within the unsurveyed area, however, the applicant states that the main access road is already in place in the unsurveyed area (GLR, 2026a). Based on information from the vegetation survey (FVC, 2025), it appears that approximately half of the area for the main access road has been cleared already. Mapping of the previously cleared area is available in Appendix E.

### Inland hairstreak butterfly

The preferred habitat of inland hairstreak (*Jalmenus aridus*; P2) is summarised as open woodland, *Senna artemisioides* subsp. *filifolia*, a variety of flowering shrubs (*Eremophila*, *Scaevola* and *Maireana*) and open areas of well drained exposed ground adjoining the host plants (Eastwood et al., 2023). *Senna artemisioides* subsp. *filifolia* and *Acacia tetragonophylla* are the two host plant species of inland hairstreak butterflies (Eastwood et al., 2023). The butterfly forms an obligate association with the ant species *Froggattella kirbii* (Eastwood et al., 2023). Some habitats within the application area were identified as potentially suitable for inland hairstreak (Appendix E; IS, 2024). *Senna artemisioides* subsp. *filifolia* occurs in 10 vegetation types within the application area, and *Acacia tetragonophylla* occurs in six vegetation types within the application area (FVC, 2025). Due to the wide distribution of the attendant ants and host plants across the state, their combined presence cannot predict the likely presence of inland hairstreak (Eastwood et al., 2023). The species is known from recent records from 2024, approximately 55 kilometres west of the application area (GIS Database).

Due to an absence of formal guidelines for surveying inland hairstreak, the same tree density and spacing used for ABAB was adopted for the identified potential habitat for inland hairstreak (IS, 2024). Diurnal searches for *Froggattella kirbii* were undertaken in conjunction with searches for the ABAB host ant within their respective areas of identified potential habitats (IS, 2024). The attendant ant was not surveyed in association with the alternative host plant, *Senna artemisioides* subsp. *filifolia* (MLG, 2026a). The survey found that *Acacia tetragonophylla* was limited within the surveyed area, and no *Froggattella kirbii* individuals were observed (IS, 2024). Note that the western section of the application area, approximately 44.4 per cent, was not considered in the survey by IS (2024). Potentially suitable habitat occurs in the unsurveyed area (Appendix E; FVC, 2025). Furthermore, inland hairstreak has been determined to have a 30 per cent chance of going extinct in the wild by 2040 without proper management such as habitat protection (Geyle et al., 2021). As searches for the attendant ant were not undertaken in association with the host plant *Senna artemisioides* subsp. *filifolia*, inland hairstreak may occur within the application area. The applicant has proposed to conduct a targeted survey of inland hairstreak during the 20 September to 20 October peak-activity window (GLR, 2026a).

### Short-range endemic (SRE) invertebrates

Seven SRE taxa were recorded within the application area, and of these, five are possible SREs and two are likely SREs (IS, 2024). The locations of the two likely SRE taxa are provided in Appendix E. The *Eucalyptus* Open Woodland over *Eremophila* Low Shrubland (EsAtEs vegetation type from FVC (2025), which makes up approximately 49.8 per cent of the application area) was identified as having moderate SRE habitat suitability, while all other habitats in the surveyed area were identified as having low SRE habitat suitability (FVC, 2025; IS, 2024). Vegetation type EsAtEs occurs broadly throughout the region and extends out of the application area (FVC, 2025; IS, 2024). The five possible SRE taxa are known to occur more widely in the region or were often recorded at multiple locations during the survey, indicating that their distribution is not restricted to the application area (IS, 2024).

One of the two likely SREs, *Antichiropus* 'Emu Flat' (millipede), was recorded from both within and outside of the application area (IS, 2024). In total, the taxon was recorded from six locations, with a total of eight individuals, within three vegetation types that extend out of the application area and are common in the region (IS, 2024). Five of the six recorded locations were within the application area, with an abundance of six individuals (IS, 2024).

The other likely SRE, *Paraplatyarthus* sp. 'IS01' (isopod), was recorded from a single location within the application area, with a single individual recorded (IS, 2024). This location was site MLSRE25, described as *Eucalyptus* Forest over *Melaleuca* Shrubland, mapped as EgAbAn vegetation type from FVC (2024) (IS, 2024). It is not practicable for this site to be avoided as a track already exists and will be upgraded to form the main access road (Appendix E; GLR, 2026a). Moving the road to avoid this site would lead to clearing of a greater amount of native vegetation and ultimately reduce habitat for this taxon further. *Paraplatyarthus* sp. 'IS01' is likely to occur in similar accumulations of leaf litter in the region (IS, 2024).

## Subterranean fauna

Both stygofauna and troglafauna were recorded within the application area and surrounds, contrary to previous hydrogeological predictions based on geological information that groundwater-dependent fauna were unlikely to occur (Bennelongia, 2024). The recorded stygofauna assemblage comprised three copepod species and one enchytraeid worm species, all known to occur across the Yilgarn or more widely (Bennelongia, 2024). The copepod species represented an unusual but low-diversity community, as these species are typically widespread in surface environments, but have not previously been collected from deep aquifers (Bennelongia, 2024). Of the four stygofauna species, one copepod *Calamoecia* sp. 342 (WA *ampulla*) and the enchytraeid worm Enchytraeidae '3 bundle' s.l. (short sclero) occurred within the application area (Bennelongia, 2024).

Three troglafauna species were recorded with potentially restricted distributions, comprising an isopod, a centipede and a symphylan (Bennelongia, 2024). Of the three troglafauna species, the isopod *Paraplatyarthus* 'BIS553' and the centipede Chilophilidae 'BGE084' occurred within the application area and are only known to exist within the proposed pit (Bennelongia, 2024). Overall, the subterranean fauna assemblages are considered low in species richness and abundance (Bennelongia, 2024).

## Other conservation significant fauna

Fork-tailed swift (*Apus pacificus*, MI) and peregrine falcon (*Falco peregrinus*, OS) may forage sporadically over the application area but are not reliant on terrestrial habitat (Commonwealth of Australia, 2008-). Breeding habitat is absent from the application area for both species (Australian Museum, 2019; BCE, 2024; Menkhorst et al., 2019). While these species may occur in the application area, the proposed clearing is unlikely to significantly impact the species.

## Conclusion

Based on the above assessment, the proposed clearing will result in:

- suitable breeding habitat for malleefowl, including the clearing of five mounds;
- potentially suitable habitat for central long-eared bat, however unlikely to be impacted by the proposed clearing. It is recommended that trees containing hollows be inspected prior to clearing to avoid clearing any potential roosting or nesting habitat;
- potentially suitable foraging and breeding habitat for southern whiteface. Hollow forming trees that may provide important nesting habitat occur within the application area;
- potentially suitable habitat for inland hairstreak butterfly; and
- some potentially suitable habitat for short-range endemic (SRE) invertebrates, subterranean fauna and other conservation significant fauna, however unlikely to be significantly impacted by the proposed clearing as habitat is widespread and extends out of the application area.

The applicant may have notification responsibilities under the EPBC Act for impacts to malleefowl, southern whiteface, ABAB, fork-tailed swift and peregrine falcon their habitats, as set out in the EPBC Act. The applicant has been advised to contact the federal Department of Climate Change, Energy, the Environment and Water (DCCEEW) to discuss EPBC Act referral requirements.

## Conditions

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

- fauna management (malleefowl condition requiring areas proposed to be cleared between 1 September and 31 January are inspected to identify active (in use) malleefowl mounds, and to maintain a 200 metre buffer around identified active mounds);
- fauna management (malleefowl condition requiring areas proposed to be cleared between 1 February and 31 August are inspected to identify malleefowl mounds, and maintain a 50 metre buffer around identified mounds);
- fauna management (southern whiteface condition requiring areas proposed to be cleared between 1 July and 31 October are inspected to identify active (in use) southern whiteface nests, and to maintain a 10 metre buffer around identified active nests);
- 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 host plants, if individuals are recorded); and
- take hygiene steps to minimise the risk of the introduction and spread of weeds.

## 3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 16 June 2026 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There are two native title claims over the area under application (DPLH, 2026). One claim has been determined by the Federal Court on behalf of the claimant group (WCD2023/004 – Kakarra Part B). One claim has been registered with the National Native Title Tribunal on behalf of the claimant group (WC2020/005 – Kakarra Part A). 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.

It is noted that the proposed clearing will impact on malleefowl, and may impact on southern whiteface, ABAB, fork-tailed swift and peregrine falcon, which are protected matters under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Commonwealth) Department of Climate Change, Energy, the Environment and Water for environmental impact assessment under the EPBC Act. The proponent is advised to contact the Department of Climate Change, Energy, the Environment and Water for further information regarding notification and referral responsibilities under the EPBC Act.

In relation to malleefowl, please be aware that the permit cannot authorise the taking or disturbing of threatened fauna species. Where clearing is likely to result in the taking or disturbing of a threatened fauna species, an authorisation from the Minister for Environment under section 40 of the *Biodiversity Conservation Act 2016* must be obtained from the Department of Biodiversity, Conservation and Attractions.

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. Additional information provided by applicant

| Summary of comments                                                                                                                                                                                            | Consideration of comment                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| On 6 July 2026, the applicant informed the Delegated Officer that an additional fauna survey over the western portion of the application area has occurred, however not provided.                              | This information is considered in the assessment of principles (a) and (b), and as part of Section 3.2.2. |
| On 16 July 2026, the applicant provided information on which malleefowl mounds are proposed to be cleared and information on which host plant species the attendant ant for inland hairstreak was searched on. |                                                                                                           |
| On 27 July 2026, the applicant informed the Delegated Officer that the subterranean fauna survey has been accepted by ISA; ISA-0001487.                                                                        |                                                                                                           |

## Appendix B. Site characteristics

### B.1. Site characteristics

| Characteristic         | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                                                                                                                                                                                                                                                                                                 |                            |                        |                            |       |                         |        |                                                                                                                                                                                                                                                                                                 |       |                            |    |                                                                                                                                                                                          |       |                            |      |                                                                                                  |       |
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| Local context          | <p>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). It is surrounded by gold mine operations and native vegetation within the Great Western Woodlands (GIS Database).</p> <p>The predominant land use in the region is Unallocated Crown Land, Crown Reserves, grazing, native pastures, conservation and mining leases (CALM, 2002).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                                                                                                                                                                                                                                                                                 |                            |                        |                            |       |                         |        |                                                                                                                                                                                                                                                                                                 |       |                            |    |                                                                                                                                                                                          |       |                            |      |                                                                                                  |       |
| Ecological linkage     | According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                                                                                                                                                                                                                                                                                 |                            |                        |                            |       |                         |        |                                                                                                                                                                                                                                                                                                 |       |                            |    |                                                                                                                                                                                          |       |                            |      |                                                                                                  |       |
| Conservation areas     | <p>There are no conservation areas within the application area (GIS Database). The nearest conservation area is Wallaby Rocks Timber Reserve, located approximately 0.5 kilometres east of the application area (GIS Database).</p> <p>There are an additional three conservation areas in the local surrounds (20 kilometres); Cardunia Rocks Nature Reserve, Randell Timber Reserve and Coonana Timber Reserve (GIS Database).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                                                                                                                                                                                                                                                                                                 |                            |                        |                            |       |                         |        |                                                                                                                                                                                                                                                                                                 |       |                            |    |                                                                                                                                                                                          |       |                            |      |                                                                                                  |       |
| Vegetation description | <p>The application area occurs within the Eastern Goldfields subregion (COO03) of the Coolgardie bioregion (GIS Database). The vegetation of the application area is broadly mapped as the Beard vegetation associations (FVS, 2025; GIS Database):</p> <ul style="list-style-type: none"><li>• <b>481:</b> Mosaic – Medium woodland; salmon gum and red mallee / hummock grasslands, mallee steppe; red mallee over spinifex <i>Triodia scariosa</i>;</li><li>• <b>540:</b> Succulent steppe with open low woodland; sheoak over saltbush;</li><li>• <b>529:</b> Succulent steppe with open low woodland; mulga and sheoak over bluebush;</li><li>• <b>24:</b> Low woodland; <i>Allocasuarina cristata</i>; and</li><li>• <b>506:</b> Succulent steppe with woodland; salmon gum and bluebush.</li></ul> <p>A detailed flora and vegetation survey was conducted over the application area (FVC, 2025) during April 2023, September 2023 and September 2024. The following vegetation associations were recorded within the application area (FVC, 2025):</p> <table><tr><th>Landform</th><th>Broad description</th><th>Vegetation unit code</th><th>Vegetation description</th><th>Extent of application area</th></tr><tr><td rowspan="3">Plain</td><td><i>Acacia</i> shrubland</td><td>AbDIPo</td><td><i>Acacia burkittii</i> and <i>Acacia tetragonophylla</i> tall sparse shrubland over <i>Dodonaea lobulata</i>, <i>Eremophila metallicorum</i>, and <i>Senna artemisioides</i> subsp. <i>filifolia</i> sparse shrubland over <i>Ptilotus obovatus</i> var <i>obovatus</i> low isolated shrubs.</td><td>0.59%</td></tr><tr><td><i>Eucalyptus</i> woodland</td><td>Ec</td><td><i>Eucalyptus concinna</i> low isolated trees over <i>Santalum spicatum</i> tall isolated shrubs over <i>Scaevola spinescens</i> and <i>Roepera ovata</i> low sparse shrubland/herbland.</td><td>1.47%</td></tr><tr><td><i>Eucalyptus</i> woodland</td><td>ErMs</td><td><i>Eucalyptus ravida</i> low open forest over <i>Melaleuca sheathiana</i> tall sparse shrubland.</td><td>0.01%</td></tr></table> | Landform             | Broad description                                                                                                                                                                                                                                                                               | Vegetation unit code       | Vegetation description | Extent of application area | Plain | <i>Acacia</i> shrubland | AbDIPo | <i>Acacia burkittii</i> and <i>Acacia tetragonophylla</i> tall sparse shrubland over <i>Dodonaea lobulata</i> , <i>Eremophila metallicorum</i> , and <i>Senna artemisioides</i> subsp. <i>filifolia</i> sparse shrubland over <i>Ptilotus obovatus</i> var <i>obovatus</i> low isolated shrubs. | 0.59% | <i>Eucalyptus</i> woodland | Ec | <i>Eucalyptus concinna</i> low isolated trees over <i>Santalum spicatum</i> tall isolated shrubs over <i>Scaevola spinescens</i> and <i>Roepera ovata</i> low sparse shrubland/herbland. | 1.47% | <i>Eucalyptus</i> woodland | ErMs | <i>Eucalyptus ravida</i> low open forest over <i>Melaleuca sheathiana</i> tall sparse shrubland. | 0.01% |
| Landform               | Broad description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Vegetation unit code | Vegetation description                                                                                                                                                                                                                                                                          | Extent of application area |                        |                            |       |                         |        |                                                                                                                                                                                                                                                                                                 |       |                            |    |                                                                                                                                                                                          |       |                            |      |                                                                                                  |       |
| Plain                  | <i>Acacia</i> shrubland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AbDIPo               | <i>Acacia burkittii</i> and <i>Acacia tetragonophylla</i> tall sparse shrubland over <i>Dodonaea lobulata</i> , <i>Eremophila metallicorum</i> , and <i>Senna artemisioides</i> subsp. <i>filifolia</i> sparse shrubland over <i>Ptilotus obovatus</i> var <i>obovatus</i> low isolated shrubs. | 0.59%                      |                        |                            |       |                         |        |                                                                                                                                                                                                                                                                                                 |       |                            |    |                                                                                                                                                                                          |       |                            |      |                                                                                                  |       |
|                        | <i>Eucalyptus</i> woodland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Ec                   | <i>Eucalyptus concinna</i> low isolated trees over <i>Santalum spicatum</i> tall isolated shrubs over <i>Scaevola spinescens</i> and <i>Roepera ovata</i> low sparse shrubland/herbland.                                                                                                        | 1.47%                      |                        |                            |       |                         |        |                                                                                                                                                                                                                                                                                                 |       |                            |    |                                                                                                                                                                                          |       |                            |      |                                                                                                  |       |
|                        | <i>Eucalyptus</i> woodland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ErMs                 | <i>Eucalyptus ravida</i> low open forest over <i>Melaleuca sheathiana</i> tall sparse shrubland.                                                                                                                                                                                                | 0.01%                      |                        |                            |       |                         |        |                                                                                                                                                                                                                                                                                                 |       |                            |    |                                                                                                                                                                                          |       |                            |      |                                                                                                  |       |

| Characteristic | Details                                          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |
|----------------|--------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                | <i>Eucalyptus</i> woodland                       | EsAhMs | <i>Eucalyptus salmonophloia</i> tall open woodland over <i>Eucalyptus griffithsii</i> , <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> low open woodland over <i>Acacia hemiteles</i> tall isolated shrubs over <i>Dodonaea lobulata</i> , <i>Eremophila interstans</i> subsp. <i>interstans</i> and <i>Eremophila scoparia</i> isolated shrubs over <i>Atriplex nummularia</i> subsp. <i>spathulata</i> , <i>Maireana sedifolia</i> , <i>Scaevola spinescens</i> and <i>Ptilotus obovatus</i> var. <i>obovatus</i> isolated low shrubs. | 7.80%  |
|                | <i>Eucalyptus</i> woodland                       | EsAtEs | <i>Eucalyptus salmonophloia</i> , <i>Eucalyptus celastroides</i> and <i>Eucalyptus ravida</i> open woodland over <i>Eremophila scoparia</i> and <i>Senna artemisioides</i> subsp. <i>filifolia</i> isolated shrubs over <i>Maireana sedifolia</i> , <i>Atriplex vesicaria</i> , <i>Atriplex nummularia</i> subsp. <i>spathulata</i> and <i>Olearia muelleri</i> low open shrubland.                                                                                                                                                     | 49.81% |
|                | Chenopod low shrubland                           | Ms     | <i>Maireana sedifolia</i> low open chenopod land.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 7.21%  |
|                | <b>Hill</b><br><i>Acacia</i> shrubland           | AbSaEt | <i>Acacia burkittii</i> tall sparse shrubland over <i>Senna artemisioides</i> subsp. <i>filifolia</i> , <i>Senna artemisioides</i> subsp. x <i>artemisioides</i> sparse shrubland over <i>Ptilotus obovatus</i> subsp. <i>obovatus</i> , and <i>Enchylaena tomentosum</i> var. <i>tomentosum</i> low isolated shrubs.                                                                                                                                                                                                                   | 3.58%  |
|                | <i>Acacia</i> shrubland                          | AcDIEg | <i>Acacia collegialis</i> tall open shrubland over <i>Dodonaea lobulata</i> , <i>Eremophila georgei</i> and <i>Eremophila granitica</i> sparse shrubland over <i>Ptilotus obovatus</i> var. <i>obovatus</i> , <i>Prostanthera althoferi</i> subsp. <i>althoferi</i> low isolated shrubs.                                                                                                                                                                                                                                                | 3.23%  |
|                | <i>Casuarina</i> woodland                        | CpEoOm | <i>Casuarina pauper</i> tall open woodland over <i>Scaevola spinescens</i> , <i>Senna artemisioides</i> subsp. <i>filifolia</i> and <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> sparse shrubland over <i>Olearia muelleri</i> low isolated shrubland.                                                                                                                                                                                                                                                                       | 0.60%  |
|                | <i>Eucalyptus</i> woodland                       | EgAbAn | <i>Eucalyptus gracilis</i> , <i>Eucalyptus griffithsii</i> and <i>Eucalyptus lesouefii</i> open woodland over <i>Santalum spicatum</i> , <i>Alyxia buxifolia</i> , <i>Eremophila</i> spp. and <i>Dodonaea lobulata</i> sparse shrubland over <i>Atriplex nummularia</i> subsp. <i>spathulata</i> , <i>Scaevola spinescens</i> , <i>Olearia muelleri</i> and <i>Westringia rigida</i> low sparse shrubland.                                                                                                                              | 15.03% |
|                | <i>Eucalyptus</i> woodland                       | EIAcMh | <i>Eucalyptus loxophleba</i> and <i>Eucalyptus griffithii</i> low woodland over <i>Allocasuarina campestris</i> and <i>Melaleuca hamata</i> tall open shrubland over <i>Triodia scariosa</i> open hummock grassland.                                                                                                                                                                                                                                                                                                                    | 5.37%  |
|                | <i>Eucalyptus</i> woodland                       | EoAhTs | <i>Eucalyptus griffithsii</i> or <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> low open woodland over <i>Allocasuarina helmsii</i> or <i>Allocasuarina campestris</i> tall sparse shrubland over <i>Triodia scariosa</i> open hummock grasslands.                                                                                                                                                                                                                                                                                       | 4.13%  |
|                | <i>Ptilotus</i> low shrubland (highly disturbed) | Ph     | <i>Ptilotus helichrysoides</i> low open shrubland.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.01%  |

| Characteristic                             | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            | <p>Based on broad descriptions:</p> <ul style="list-style-type: none"> <li><i>Eucalyptus</i> woodland comprises approximately 83.63 per cent of the application area;</li> <li><i>Acacia</i> shrubland comprises approximately 7.39 per cent of the application area;</li> <li>Chenopod low shrubland comprises approximately 7.21 per cent of the application area;</li> <li><i>Casuarina</i> woodland comprises approximately 0.60 per cent of the application area; and</li> <li><i>Ptilotus</i> low shrubland comprises approximately 0.01 per cent of the application area.</li> </ul> <p>Mapping of vegetation types is provided in Appendix E (FVC, 2025).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Vegetation condition                       | <p>The vegetation survey (FVC, 2025) of the application area found the vegetation to be in Excellent to Completely Degraded Keighery (1994) condition. Approximately 88.9 per cent (approximately 4,206.4 hectares) of the application area was observed to be in Very Good to Excellent Keighery (1994) condition. Approximately 1.2 per cent (approximately 54.8 hectares) of the application area is cleared due to previous infrastructure and exploration mining activity (FVC, 2025).</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix D.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Climate and landform                       | <p>The climate of the Eastern Goldfields subregion is described as arid to semi-arid, with average annual rainfall of 256 millimetres recorded at the nearest weather station, with rainfall sometimes in summer but usually in winter (BoM, 2026; CALM, 2002).</p> <p>The application area is mapped with elevations ranging between 340 to 450 metres Australian Height Datum (GIS Database).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Soil description and land degradation risk | <p>The soil within the application area is mapped as the following systems (DPIRD, 2026a; Waddell and Galloway, 2023; GIS Database):</p> <ul style="list-style-type: none"> <li><b>Kanowna:</b> Level to gently inclined pedepains, gently undulating stony plains and prominent drainage foci supporting eucalypt woodlands with saltbush low shrubs. Susceptible to erosion when disturbed.</li> <li><b>Bevon:</b> Irregular low ironstone hills with stony lower slopes supporting mulga shrublands. Susceptible to erosion when disturbed.</li> <li><b>Gundockerta:</b> Extensive, gently undulating calcareous stony plains supporting bluebush shrublands. Susceptible to erosion when disturbed.</li> <li><b>Moriarty:</b> Low greenstone rises and stony plains supporting chenopod shrublands with patchy eucalypt overstoreys. Moderately susceptible to erosion.</li> <li><b>Helag:</b> Hardpan plains and central drainage tracts with mulga shrublands and minor chenopod shrublands. Susceptible to erosion when disturbed.</li> <li><b>Graves:</b> Basalt and greenstone rises and low hills supporting eucalypt woodlands with prominent saltbush and bluebush understoreys. May be susceptible to erosion when disturbed.</li> <li><b>Sedgman:</b> Gritty surfaced plains with granite outcrop and low granite domes and hills supporting acacia tall shrublands. Generally not susceptible to erosion.</li> <li><b>Gumland:</b> Extensive pedepains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys. Susceptible to erosion when disturbed.</li> <li><b>Woolibar:</b> Gently undulating calcareous gravelly plains, supporting bluebush shrublands and eucalypt woodlands. Highly susceptible to erosion.</li> <li><b>Monger:</b> Low rises, breakaways and very gently undulating plains with ironstone gravel mantles, supporting eucalypt woodlands, dissected by saline alluvial tracts, supporting halophytic shrublands. Generally not susceptible to erosion.</li> <li><b>Erayinia:</b> Undulating sheetwash plains adjacent weathered granite rises, supporting eucalypt woodlands and mixed shrublands. Moderately susceptible to erosion.</li> </ul> <p>The three soil landscape systems that occur in the application area are (FVC, 2025):</p> <ul style="list-style-type: none"> <li>BB5 Atlas System (265g4): Rocky ranges and hills of greenstones-basic igneous rocks.</li> <li>Mx43 Atlas System (265k9): Gently undulating valley plains and pediments; some outcrop of basic rock.</li> <li>JJ16 Atlas System (265j7): Broken terrain characterised by rock outcrops (granitic bosses and tors) which may cover very large areas within the unit.</li> </ul> |
| Waterbodies                                | <p>The desktop assessment and aerial imagery indicated that several minor, non-perennial watercourses intersect the application area (GIS Database).</p> <p>There are no Wetlands of National or International Importance within the application area or local surrounds (20 kilometres) (GIS Database). The nearest Wetland of National Importance is Rowles Lagoon System, located approximately 150 kilometres north-west of the application area (GIS Database).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Characteristic         | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hydrogeography         | <p>The application area is located within the Goldfields Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). The nearest Public Drinking Water Source Area is Broad Arrow Dam Catchment Area located approximately 110 kilometres north-west of the application area (GIS Database).</p> <p>The groundwater salinity is mapped as 14,000 to 35,000 milligrams per litre total dissolved solids which is described as saline (BoM, 2019; GIS Database).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Flora                  | <p>There are no records of threatened flora species within the application area or local surrounds (20 kilometres) (FVC, 2025; GIS Database). Four priority flora were recorded within the application area (FVC, 2025).</p> <p>There are records of twelve conservation significant flora species within a 20 kilometre radius of the application area, as detailed in Appendix B.3 (GIS Database).</p> <p>Mapping of conservation significant flora recorded is provided in Appendix E (FVC, 2025).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Ecological communities | <p>There are no Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) within the application area or the local surrounds (20 kilometres) (FVC, 2025; GIS Database). None of the vegetation types recorded within the application area are considered representative of any TECs or PECs (FVC, 2025).</p> <p>The nearest known PEC is Mount Belches <i>Acacia quadrimarginea/Ptilotus obovatus</i> (banded ironstone formation) (P3), approximately 6.5 kilometres south-west of the application area (GIS Database).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Fauna                  | <p>There are records of one threatened fauna species within the application area (BCE, 2024; GIS Database).</p> <p>There are records of four conservation significant fauna species within the local surrounds (20 kilometres), as detailed in Appendix B.4 (GIS Database). Additional fauna has also been considered that were identified from the fauna survey (BCE, 2024), the short-range endemic (SRE) invertebrate survey (IS, 2024) and the subterranean fauna survey (Bennelongia, 2024).</p> <p>Mapping of conservation significant fauna and SRE invertebrates recorded is provided in Appendix E (BCE, 2024; IS, 2024).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Fauna habitat          | <p>A basic vertebrate fauna assessment and targeted malleefowl assessment was conducted over 55.6 per cent of the application area (BCE, 2024) during April and July 2023. There are six vegetation and substrate associations (VSAs) described within the portion of the application area that was surveyed, which are the environments that provide habitats for fauna, in addition to cleared area (BCE, 2024):</p> <ul style="list-style-type: none"> <li>• VSA 1: Eucalypt open woodland over open shrublands, on loam clay soils of plains.</li> <li>• VSA 2: Eucalypt and <i>Allocasuarina</i> open woodland and over mixed shrubland, on gravelly loam soils of slopes, hills and some plains.</li> <li>• VSA 3: Eucalypt low, open woodland over <i>Allocasuarina</i> open shrubland with some areas of hummock grassland, on gravelly, sandy loams of stony rises.</li> <li>• VSA 4: <i>Acacia</i> tall shrubland over mixed low, sparse shrubland, on sandy loam of slopes; some exposed granite.</li> <li>• VSA 5: <i>Acacia</i> tall, sparse shrubland over sparse mixed shrubs, on sandy loams in drainage areas and on plains.</li> <li>• VSA 6: Eucalypt low woodland over <i>Melaleuca</i> sparse shrubland, on loam-clay soils of drainage lines and adjacent plains. Very minor extent, comprising approximately 0.01 per cent of the application area.</li> </ul> <p>Note that approximately 44.4 per cent of the application area, the western portion, was not surveyed by BCE (2024).</p> <p>Mapping of fauna habitat types (VSAs) is provided in Appendix E (BCE, 2024).</p> |

## B.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 |                        |                     |                      |                                              |                                                                                 |
| 481                                   | 809,698.65             | 809,600.86          | 99.99                | 42,177.42                                    | 5.21                                                                            |

|                                                           |            |            |       |           |       |
|-----------------------------------------------------------|------------|------------|-------|-----------|-------|
| 540                                                       | 202,423.88 | 200,158.84 | 98.88 | 56,406.04 | 27.87 |
| 529                                                       | 102,579.86 | 102,479.14 | 99.90 | 4,482.01  | 4.37  |
| 24                                                        | 263,147.66 | 263,128.56 | 99.99 | 3,599.18  | 1.37  |
| 506                                                       | 98,187.43  | 98,050.28  | 99.86 | 12,572.20 | 12.80 |
| Beard vegetation associations<br>- Bioregion (Coolgardie) |            |            |       |           |       |
| 481                                                       | 809,118.25 | 809,020.46 | 99.99 | 42,177.42 | 5.21  |
| 540                                                       | 75,810.73  | 73,619.86  | 97.11 | N/A       | N/A   |
| 529                                                       | 40,377.04  | 40,377.04  | 100   | 1,707.08  | 4.23  |
| 24                                                        | 14,280.58  | 14,280.58  | 100   | N/A       | N/A   |
| 506                                                       | 98,187.43  | 98,050.28  | 99.86 | 12,572.20 | 12.80 |
| 481                                                       | 809,118.25 | 809,020.46 | 99.99 | 42,177.42 | 5.21  |

Government of Western Australia (2019)

### B.3. Flora analysis table

The following conservation significant flora species have been recorded within 20 kilometres of the application area or in biological surveys (FVC, 2025; GIS Database). The assessment of these species included consideration in field surveys, potentially suitable habitat within the application area, species distribution and known regional records (Chinnock, 2007; FVC, 2025; Jones and French, 2016; Obbens, 2018; WAH, 1998-; WANOSCG, n.d.; Williams, 2022; GIS Database).

| Species name                                          | Suitable habitat features? [Y/N] | Suitable vegetation type? [Y/N] | Suitable soil type? [Y/N] | Distance of closest record to application area (km)            | Number of known records (total) | Are surveys adequate to identify? [Y/N] | Likelihood of occurrence within application area [Recorded/ Likely/ Possible/ Unlikely] |
|-------------------------------------------------------|----------------------------------|---------------------------------|---------------------------|----------------------------------------------------------------|---------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Priority 1</b>                                     |                                  |                                 |                           |                                                                |                                 |                                         |                                                                                         |
| <i>Calandrinia quartzitica</i>                        | N                                | N                               | N                         | <20                                                            | 18                              | Y                                       | Unlikely                                                                                |
| <i>Grevillea phillipsiana</i>                         | Y                                | Y                               | Y                         | <5, known population adjacent to application area (Appendix E) | 21                              | Y                                       | Possible                                                                                |
| <i>Lepidosperma lyonsii</i>                           | Y                                | Y                               | Y                         | <5, known population adjacent to application area (Appendix E) | 72                              | Y                                       | Possible                                                                                |
| <i>Pterostylis xerampelina</i>                        | Y                                | Y                               | Y                         | <5                                                             | 15                              | Y                                       | Possible                                                                                |
| <b>Priority 2</b>                                     |                                  |                                 |                           |                                                                |                                 |                                         |                                                                                         |
| <i>Eremophila praecox</i>                             | Y                                | Y                               | Y                         | <10                                                            | 52                              | Y                                       | Possible                                                                                |
| <i>Goodenia jaurdiensis</i>                           | Y                                | Y                               | Y                         | 0                                                              | 13                              | Y                                       | <b>Recorded</b>                                                                         |
| <b>Priority 3</b>                                     |                                  |                                 |                           |                                                                |                                 |                                         |                                                                                         |
| <i>Allocasuarina eriochlamys</i> subsp. <i>grossa</i> | Y                                | N                               | Y                         | <5                                                             | 28                              | Y                                       | Possible                                                                                |
| <i>Austrostipa turbinata</i>                          | Y                                | Y                               | Y                         | <20                                                            | 25                              | Y                                       | Possible                                                                                |
| <i>Austrostipa vickeryana</i>                         | Y                                | Y                               | Y                         | 0                                                              | 9                               | Y                                       | <b>Recorded</b>                                                                         |

| Species name                                                    | Suitable habitat features? [Y/N] | Suitable vegetation type? [Y/N] | Suitable soil type? [Y/N] | Distance of closest record to application area (km)            | Number of known records (total) | Are surveys adequate to identify? [Y/N] | Likelihood of occurrence within application area [Recorded/ Likely/ Possible/ Unlikely] |
|-----------------------------------------------------------------|----------------------------------|---------------------------------|---------------------------|----------------------------------------------------------------|---------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|
| <i>Eremophila arachnoides</i> subsp. <i>tenera</i>              | Y                                | Y                               | Y                         | 0                                                              | 18                              | Y                                       | Recorded                                                                                |
| <i>Melaleuca coccinea</i>                                       | Y                                | Y                               | Y                         | 0                                                              | 35                              | Y                                       | Recorded                                                                                |
| <i>Micromyrtus serrulata</i>                                    | Y                                | Y                               | Y                         | <1, known population adjacent to application area (Appendix E) | 23                              | Y                                       | Possible                                                                                |
| <i>Notisia intonsa</i>                                          | Y                                | Y                               | Y                         | <1, known population adjacent to application area (Appendix E) | 29                              | Y                                       | Possible                                                                                |
| <i>Stackhousia muricata</i> subsp. Perennial (W.R. Barker 3641) | Y                                | Y                               | Y                         | <5, known population adjacent to application area (Appendix E) | 50                              | Y                                       | Possible                                                                                |
| <b>Priority 4</b>                                               |                                  |                                 |                           |                                                                |                                 |                                         |                                                                                         |
| <i>Eucalyptus kruseana</i>                                      | Y                                | Y                               | Y                         | <5                                                             | 29                              | Y                                       | Possible                                                                                |
| <i>Eucalyptus x brachyphylla</i>                                | Y                                | Y                               | Y                         | <5                                                             | 24                              | Y                                       | Possible                                                                                |

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

#### B.4. Fauna analysis table

The following conservation significant fauna species have been recorded within 20 kilometres of the application area or in biological surveys (BCE, 2024; IS, 2024; GIS Database). The likelihood of occurrence for these species was determined by potentially suitable habitat within the application area, species distribution and known regional records (Australian Museum, 2019; BCE, 2024; BirdLife Australia, n.d.; Commonwealth of Australia, 2008-; DBCA, 2020; DCCEEW, 2023; DCCEEW, 2024; Eastwood et al., 2023; IS, 2024; Menkhorst and Knight, 2011; Menkhorst et al., 2019; GIS Database).

| Species name                                            | Conservation status | Suitable habitat features? [Y/N] | Suitable vegetation type? [Y/N] | Distance of closest record to application area (km) | Are surveys adequate to identify? [Y/N] | Likelihood of occurrence within application area [Recorded/ Likely/ Possible/ Unlikely] |
|---------------------------------------------------------|---------------------|----------------------------------|---------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Mammal</b>                                           |                     |                                  |                                 |                                                     |                                         |                                                                                         |
| Central long-eared bat ( <i>Nyctophilus major tor</i> ) | P3                  | Y                                | Y                               | <65                                                 | Y                                       | Possible                                                                                |
| <b>Bird</b>                                             |                     |                                  |                                 |                                                     |                                         |                                                                                         |
| Common greenshank ( <i>Tringa nebularia</i> )           | MI                  | N                                | N                               | <5                                                  | Y                                       | Unlikely                                                                                |
| Common sandpiper ( <i>Actitis hypoleucos</i> )          | MI                  | N                                | N                               | <20                                                 | Y                                       | Unlikely                                                                                |
| Fork-tailed swift ( <i>Apus pacificus</i> )             | MI                  | Y                                | Y                               | <15                                                 | Y                                       | Possible                                                                                |
| Malleefowl ( <i>Leipoa ocellata</i> )                   | VU                  | Y                                | Y                               | 0                                                   | Y                                       | Recorded                                                                                |
| Peregrine falcon ( <i>Falco peregrinus</i> )            | OS                  | Y                                | Y                               | <5                                                  | Y                                       | Possible                                                                                |

| Species name                                          | Conservation status | Suitable habitat features? [Y/N] | Suitable vegetation type? [Y/N] | Distance of closest record to application area (km) | Are surveys adequate to identify? [Y/N] | Likelihood of occurrence within application area [Recorded/ Likely/ Possible/ Unlikely] |
|-------------------------------------------------------|---------------------|----------------------------------|---------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|
| Southern whiteface ( <i>Aphelocephala leucopsis</i> ) | VU                  | Y                                | Y                               | <110                                                | Y                                       | Possible                                                                                |
| <b>Invertebrate</b>                                   |                     |                                  |                                 |                                                     |                                         |                                                                                         |
| Arid bronze azure butterfly ( <i>Ogyris petrina</i> ) | CR                  | Y                                | Y                               | <90                                                 | Y                                       | Possible                                                                                |
| Inland hairstreak ( <i>Jalmenus aridus</i> )          | P2                  | Y                                | Y                               | <60                                                 | Y                                       | Possible                                                                                |

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

### B.5. Ecological community analysis table

The following conservation significant ecological communities have been recorded within 20 kilometres of the application area (FVC, 2025; GIS Database). The likelihood of occurrence for this community was determined by potentially suitable habitat within the application area, community distribution and biological survey information (DBCA, 2025; FVC, 2025; GIS Database).

| Community name                                                                                     | Conservation status | Suitable habitat features? [Y/N]                                                                   | Suitable vegetation type? [Y/N]                                       | Distance of closest record to application area (km) | Are surveys adequate to identify? [Y, N, N/A] | Likelihood of occurrence |
|----------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------|--------------------------|
| Mount Belches <i>Acacia quadrimarginea</i> / <i>Ptilotus obovatus</i> (banded ironstone formation) | P3                  | Y, some underlying geology (mafic extrusive rocks) of the project area suggest that BIFs may occur | N, <i>Acacia quadrimarginea</i> was not recorded during field surveys | <6.5                                                | Y                                             | Unlikely                 |

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

### Appendix C. Assessment against the clearing principles

| Assessment against the clearing principles                                                                                                                                                                                                                                                                                                                                                | Variance level               | Is further consideration required?                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------|
| <b>Environmental value: biological values</b>                                                                                                                                                                                                                                                                                                                                             |                              |                                                     |
| <u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."<br><u>Assessment:</u><br>The area proposed to be cleared contains locally and regionally significant flora, fauna and habitats.                                                                                                                                             | At variance                  | Yes<br><br>Refer to Section 3.2.1 and 3.2.2, above. |
| <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."<br><u>Assessment:</u><br>The area proposed to be cleared contains significant habitat for conservation significant fauna. Habitat for malleefowl breeding is known to occur within the application area. | At variance                  | Yes<br><br>Refer to Section 3.2.2, above.           |
| <u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."<br><u>Assessment:</u><br>The area proposed to be cleared is unlikely to contain flora species listed under the BC Act (FVC, 2025; GIS Database).                                                                                        | Not likely to be at variance | No                                                  |

| Assessment against the clearing principles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Variance level               | Is further consideration required? |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------|
| <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 TECs located within or in close proximity to the application area (FVC, 2025; GIS Database). None of the vegetation types recorded in the area proposed to be cleared represent a TEC (FVC, 2025).</p>                                                                                                                                                                                                                                                                                                                                                       | Not likely to be at variance | No                                 |
| <b>Environmental value: significant remnant vegetation and conservation areas</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |                                    |
| <p><u>Principle (e):</u> <i>"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."</i></p> <p><u>Assessment:</u></p> <p>The extent 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).</p>                                                                                                                                                                                                                             | Not at variance              | No                                 |
| <p><u>Principle (h):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."</i></p> <p><u>Assessment:</u></p> <p>Given the close distance to the nearest conservation area, Wallaby Rocks Timber Reserve, the proposed clearing may have indirect impacts on the environmental values of the conservation area (GIS Database). Altered hydrology, dust and other impacts associated with mining activities will be considered under the <i>Mining Act 1978</i>. Potential impacts to environmental values of the conservation area as a result of the proposed clearing may be minimised by the implementation of a weed management condition.</p>                           | May be at variance           | No                                 |
| <b>Environmental value: land and water resources</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                                    |
| <p><u>Principle (f):</u> <i>"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."</i></p> <p><u>Assessment:</u></p> <p>There are no permanent waterbodies or watercourses within the application area (FVC, 2025; GIS Database). However, several minor non-perennial watercourses intersect the application area (FVC, 2025; GIS Database). Two mapped fauna habitats (VSAs) within the application area, VSA 5 and VSA 6, were associated with drainage lines (Appendix E; BCE, 2024; GIS Database). Therefore, the proposed clearing may impact on vegetation associated with a watercourse and may disrupt surface water flows. Potential impacts can be minimised with a watercourse management condition.</p> | At variance                  | No                                 |
| <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>Most land systems mapped within the application area are susceptible to soil erosion when native vegetation cover is removed (DPIRD, 2026a; Waddell and Galloway, 2023). Noting the extent of the application area and the condition of the vegetation, the proposed clearing is likely to have an appreciable impact on land degradation. The impacts of erosion may be reduced by a staged clearing condition to utilise cleared areas within three months of conducting clearing, to prevent cleared areas from being unstable and prone to erosion for extended periods of time.</p>                        | May be at variance           | No                                 |
| <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>Given no permanent watercourses, wetlands or Public Drinking Water Sources Areas are recorded within the application area, the proposed clearing is unlikely to cause deterioration in surface or ground water quality.</p>                                                                                                                                                                                                                                                                                                                                                     | Not likely to be at variance | No                                 |

| Assessment against the clearing principles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Variance level               | Is further consideration required? |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------|
| <p><u>Principle (j):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."</p> <p><u>Assessment:</u></p> <p>The average annual rainfall at the nearest weather station is 256 millimetres (BoM, 2026), and the average annual evaporation is between 2,400 and 2,800 millimetres, greatly exceeding rainfall (BoM, 2006). No permanent watercourses or waterbodies are recorded within or in close proximity to the application area (GIS Database). Therefore, the proposed clearing is unlikely to contribute to waterlogging or increase the incidence or intensity of flooding (GIS Database).</p> | Not likely to be at variance | No                                 |

#### Appendix D. 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 Keighery, B. J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

#### Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

| Condition           | Description                                                                                                                                                                                                                                                                                                                                      |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pristine            | Pristine or nearly so, no obvious signs of disturbance.                                                                                                                                                                                                                                                                                          |
| Excellent           | Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.                                                                                                                                                                                                                                    |
| Very good           | Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.                                                                                                                         |
| Good                | Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing. |
| Degraded            | Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.                 |
| Completely degraded | The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.                                                                           |

# Appendix E. Biological survey mapping excerpts

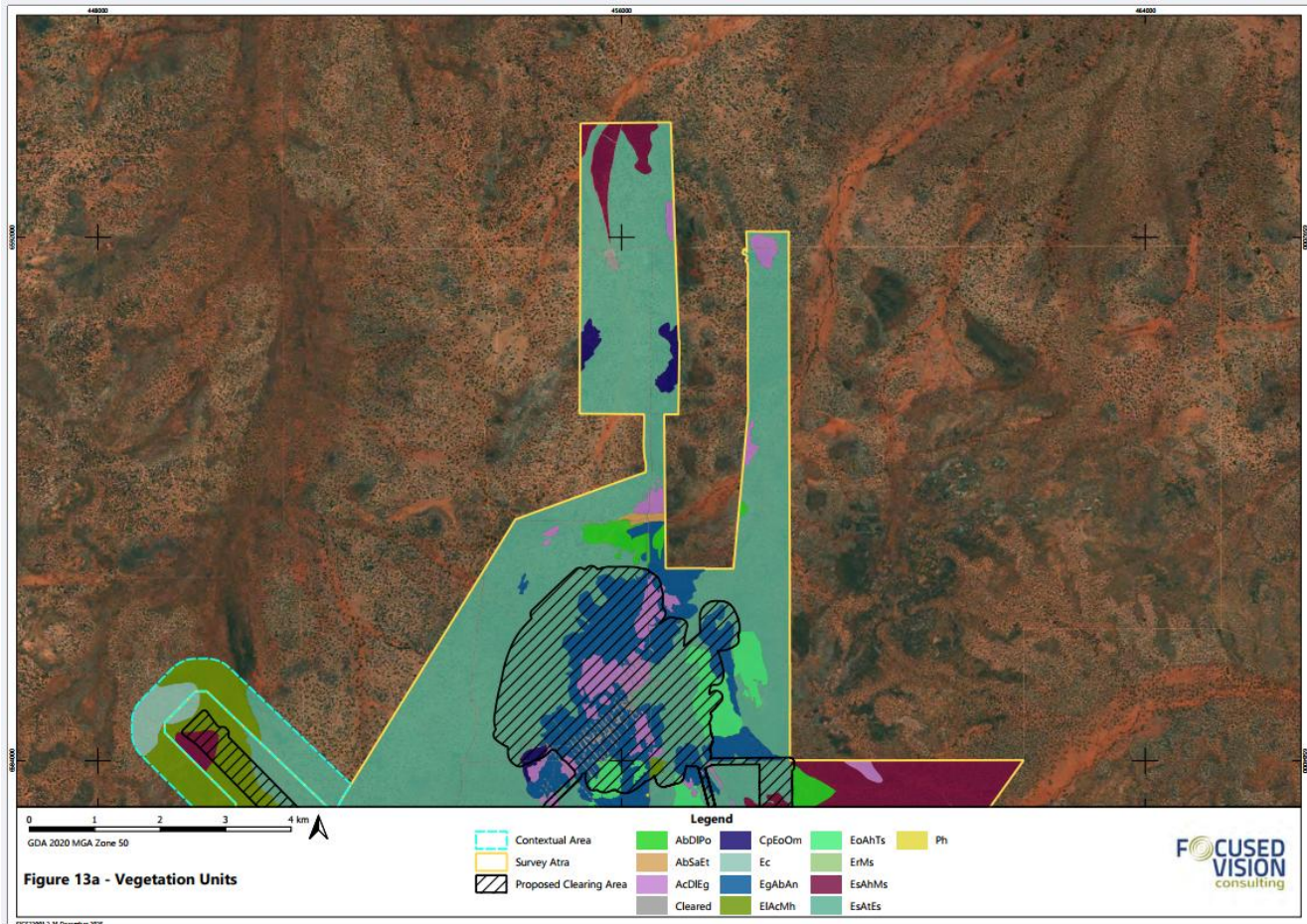


Figure 1a. Vegetation types in surveyed area (FVC, 2025). Note that AcLI and Water do not occur in application area.

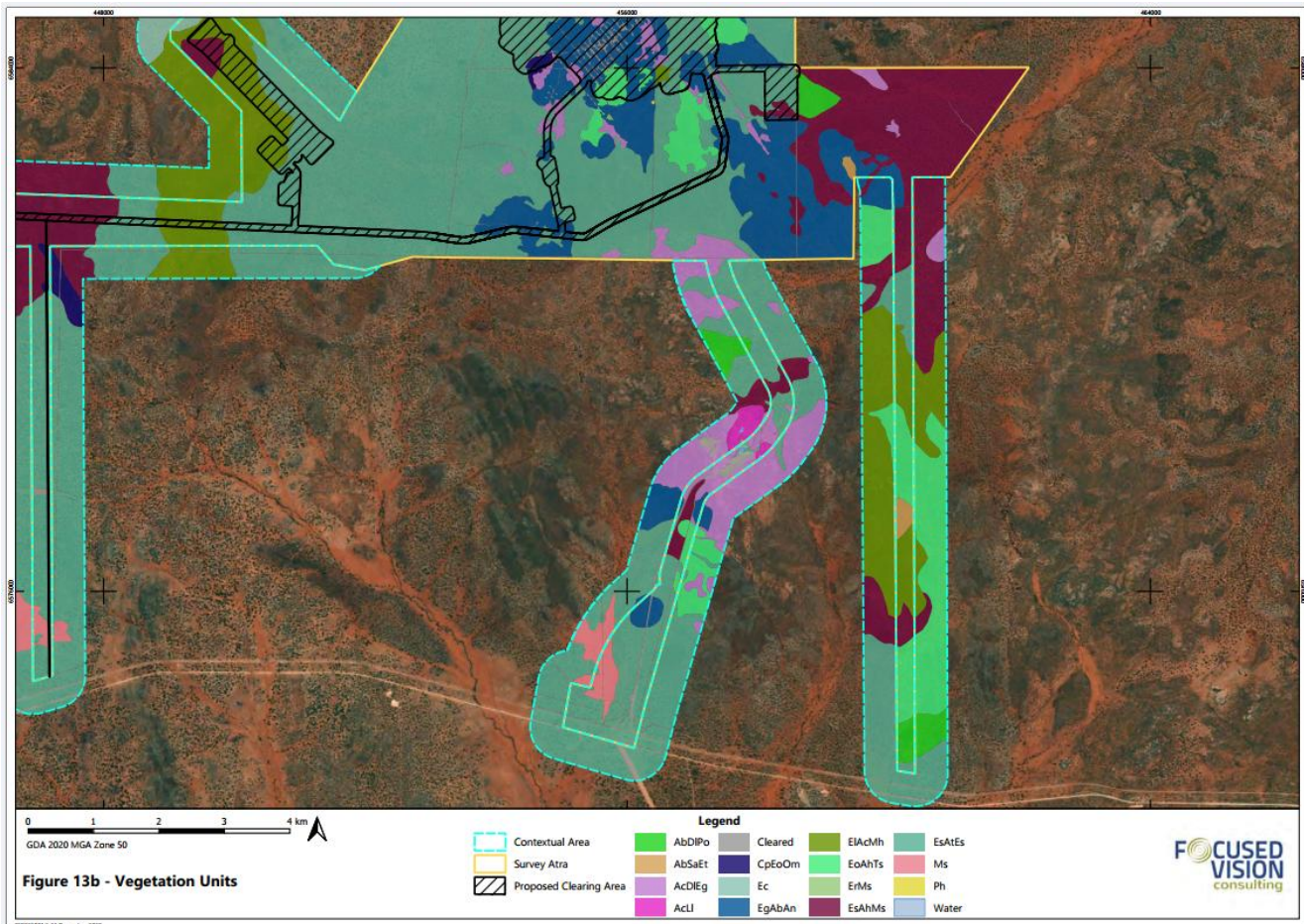


Figure 1b. Vegetation types in surveyed area (FVC, 2025). Note that AcLI and Water do not occur in application area.

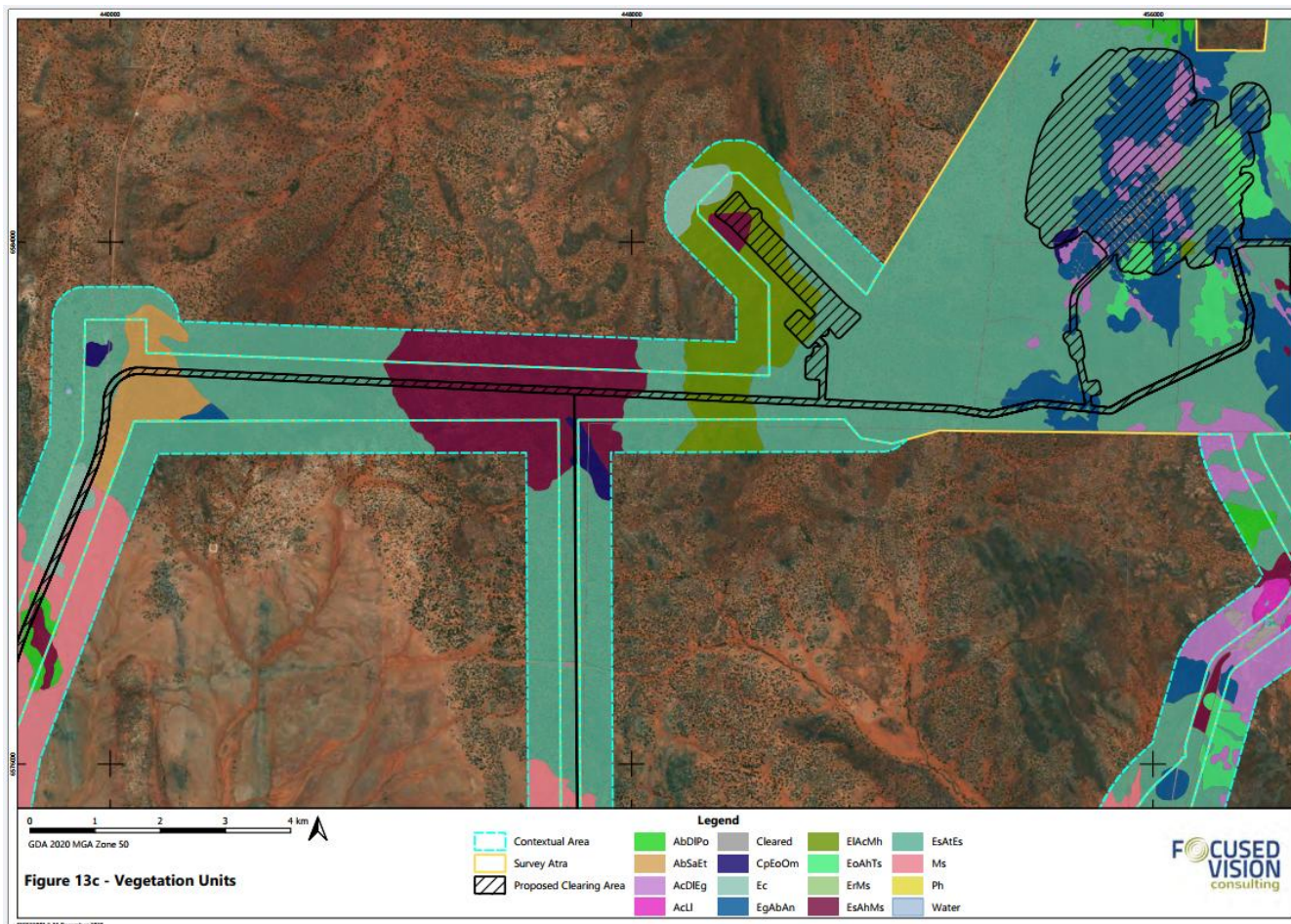


Figure 1c. Vegetation types in surveyed area (FVC, 2025). Note that AcLI and Water do not occur in application area.

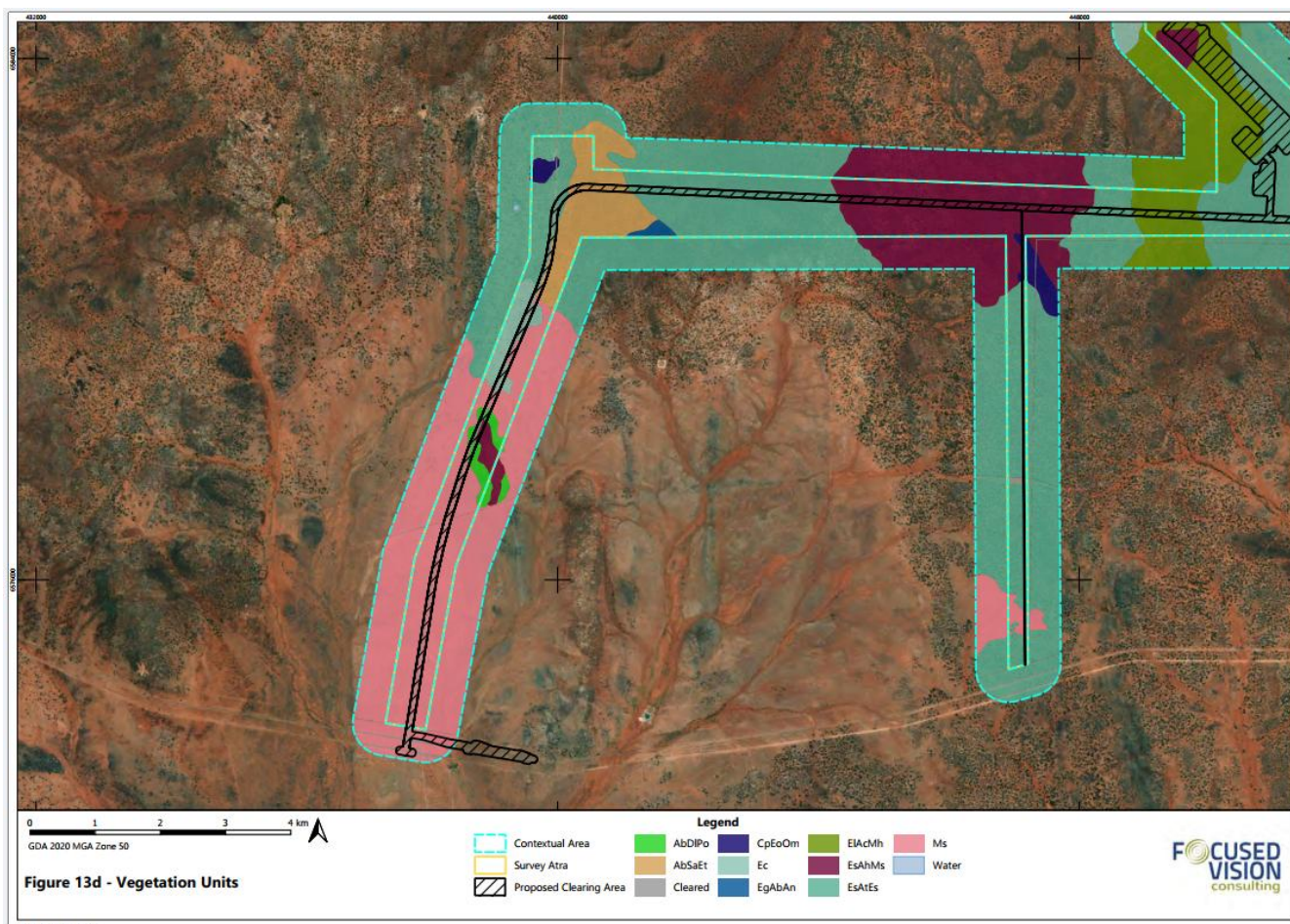


Figure 1d. Vegetation types in surveyed area (FVC, 2025). Note that AcLI and Water do not occur in application area.

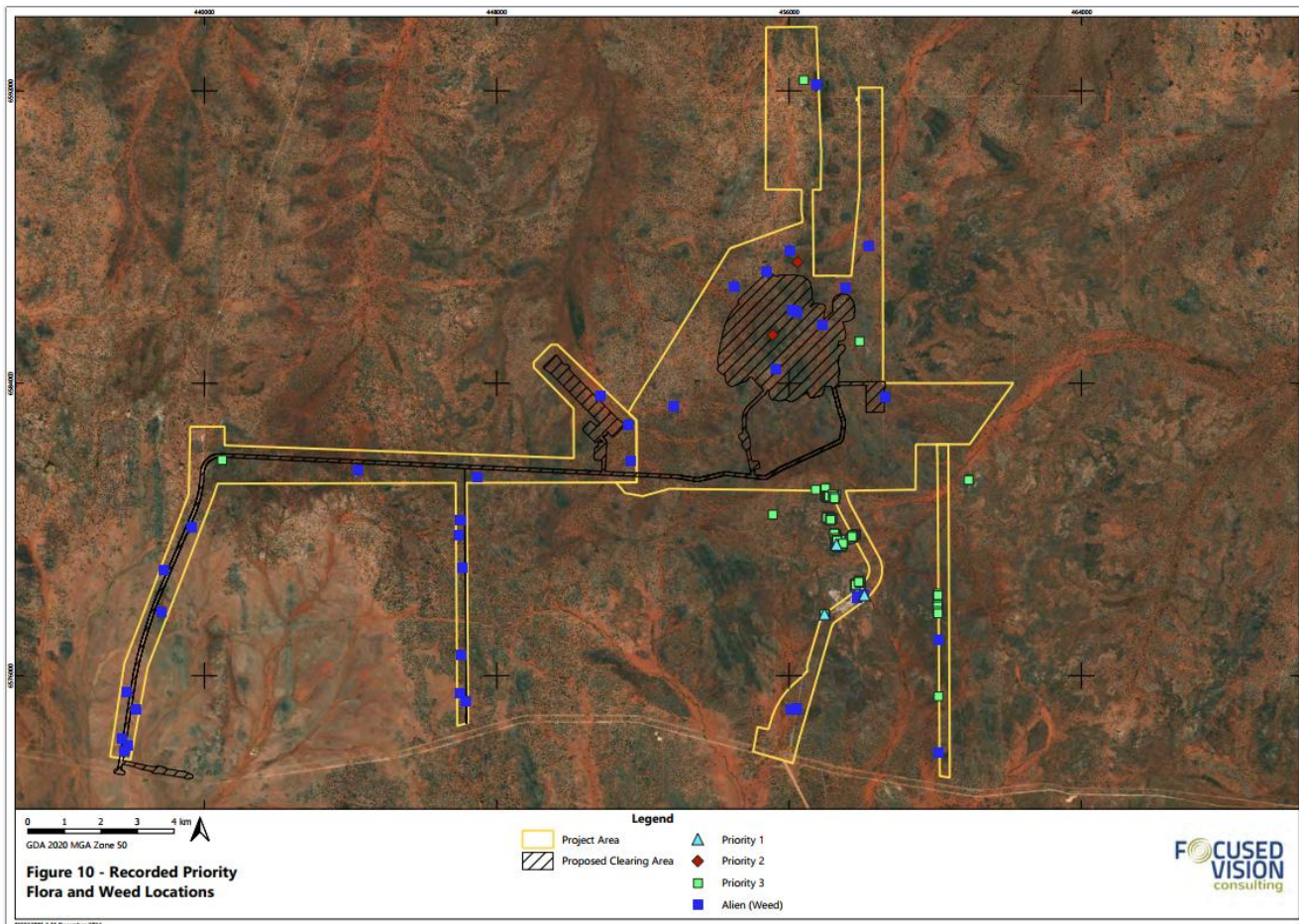


Figure 2. Recorded conservation significant flora and weed species in surveyed area (FVC, 2025).

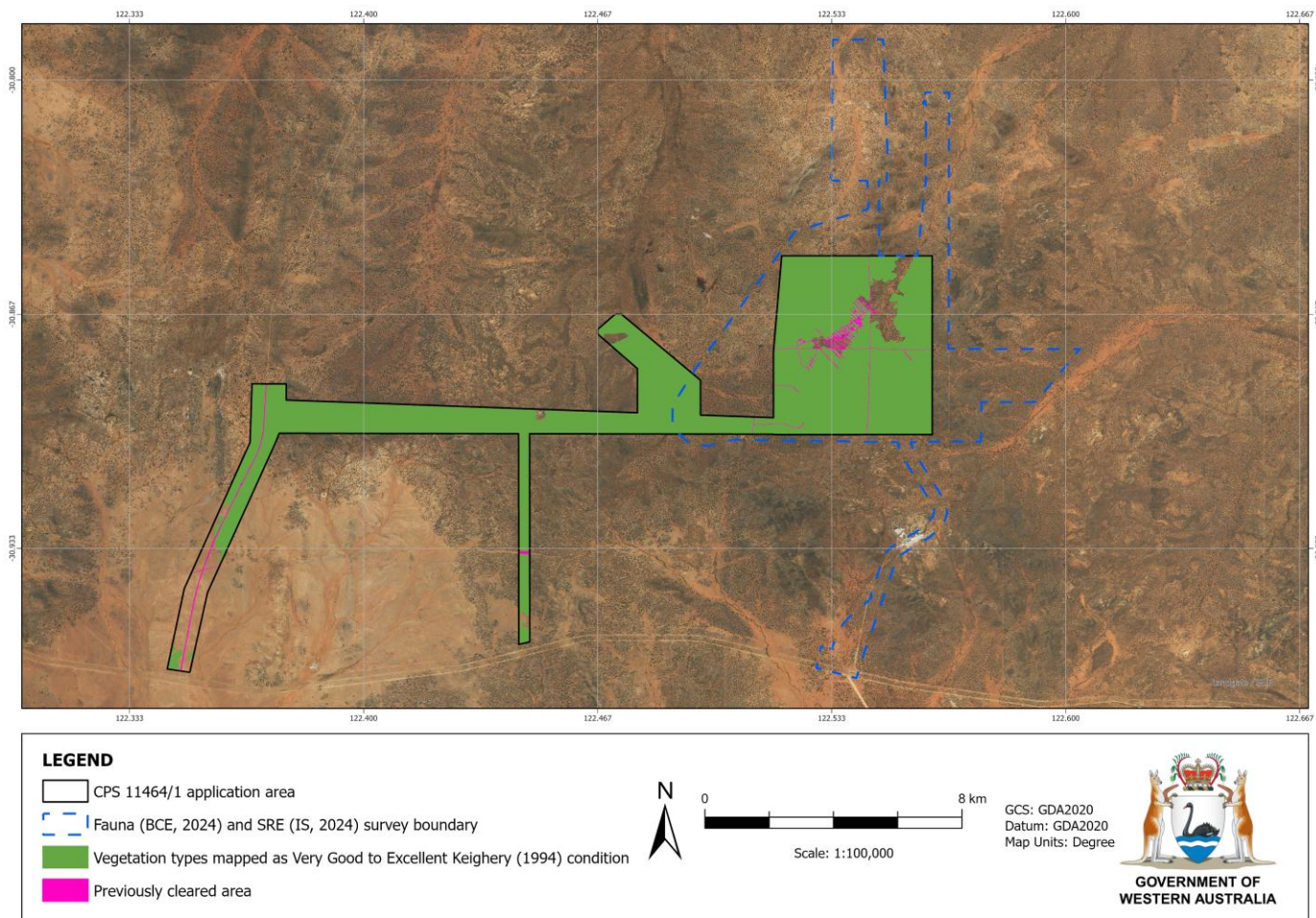


Figure 3. Fauna and SRE survey coverage over application area (BCE, 2024; IS, 2024), vegetation in Very Good to Excellent Keighery (1994) condition and previously cleared area (FVC, 2025).

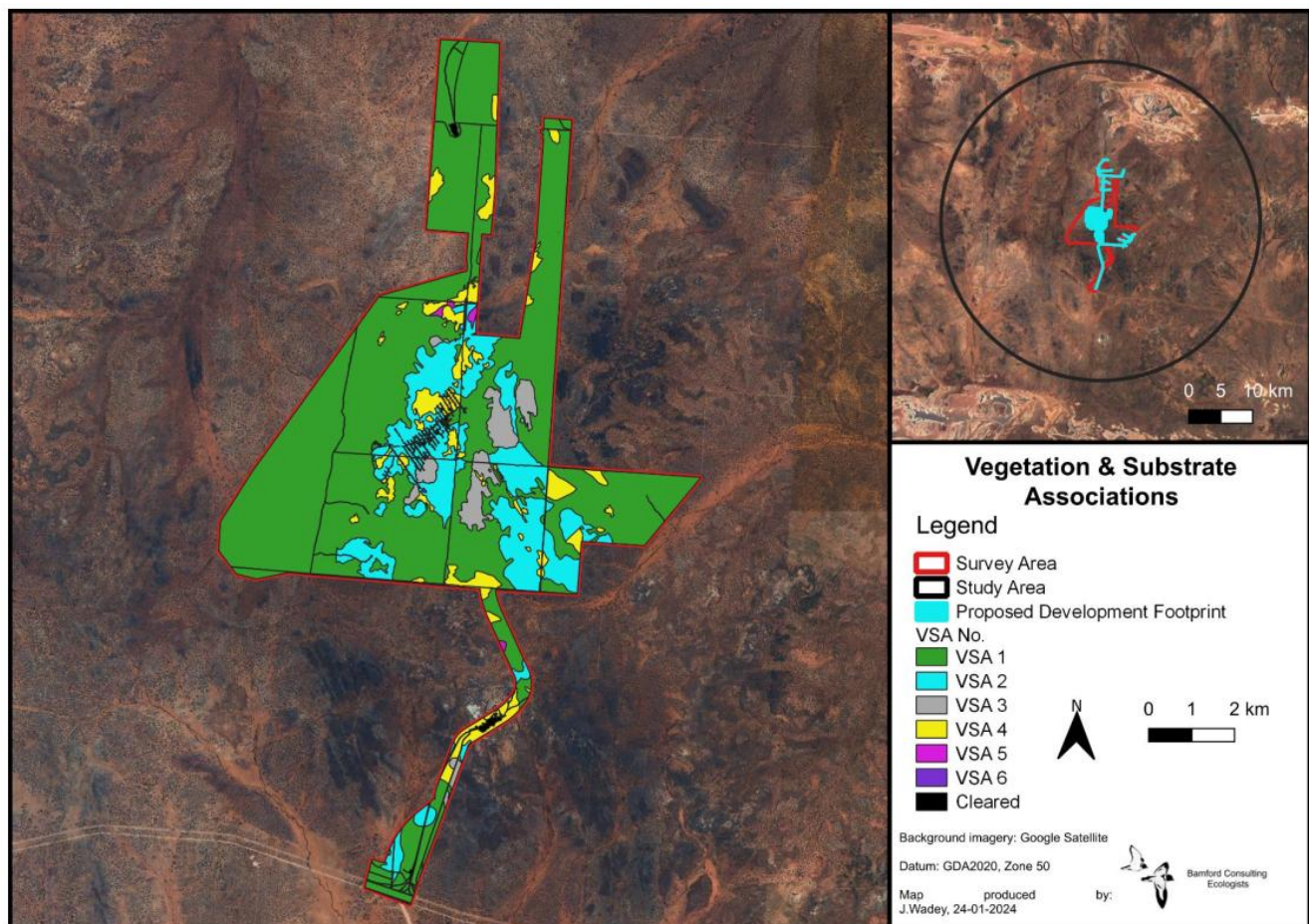


Figure 4. Fauna habitat types (vegetation and substrate associations [VSAs]) in surveyed area (BCE, 2024). Note that the blue representing VSA 2 is present on the left map only, and the same blue representing Proposed Development Footprint is present on the top right map only.

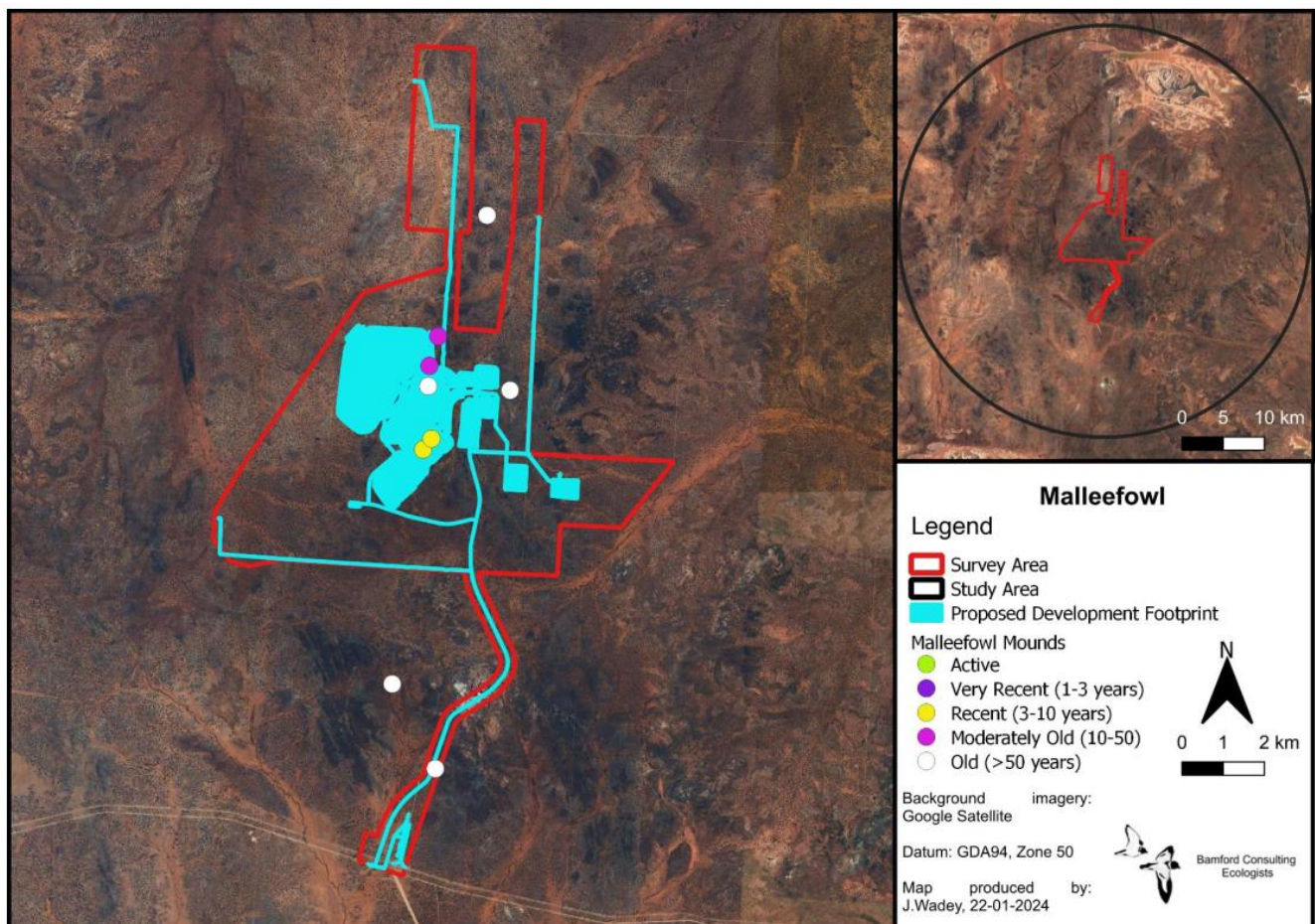


Figure 5. Recorded malleefowl mounds in surveyed area, in both April and July 2023 searches (BCE, 2024).

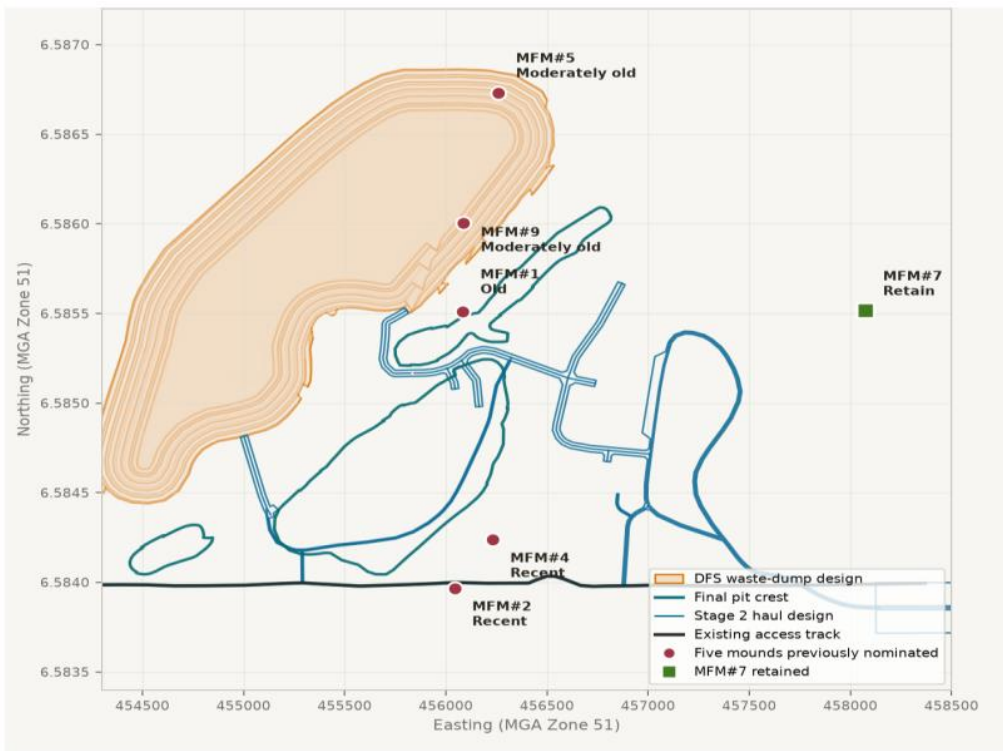


Figure 6. Conceptual design of recorded malleefowl mounds in surveyed area against proposed mine site layout. Five mounds are proposed to be cleared, and one mound (MFM#7) is proposed to be retained (BCE, 2024; GLR, 2026a).

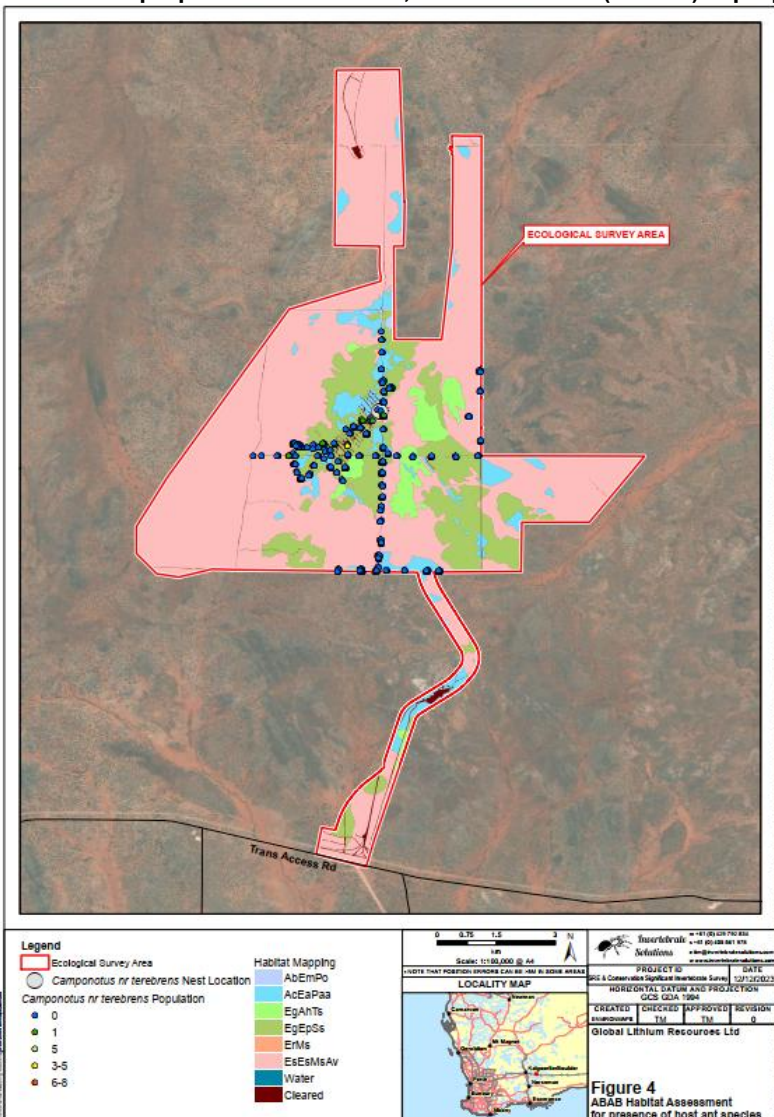


Figure 7. Recorded presence of host ants during ABAB habitat assessment, and vegetation types, in surveyed area (IS, 2024).

## Appendix F. Sources of information

|             |                     |
|-------------|---------------------|
| <b>F.1.</b> | <b>GIS datasets</b> |
|-------------|---------------------|

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

- 10 metre contours (DPIRD-073)

- CPS 11464/1

- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- 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)
- Townsites (LGATE-248)
- WA Now Aerial Imagery
- Wild Rivers (DWER-087)

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)

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## Glossary

### Acronyms:

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

**Definitions:**

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

**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.