

# Clearing Permit Decision Report

## 1. Application details and outcomes

### 1.1. Permit application details

Permit number:	10822/1
Permit type:	Purpose Permit
Applicant name:	Brightstar Resources Limited
Application received:	31 October 2024
Application area:	100 hectares
Purpose of clearing:	Mineral Production
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 39/138, 39/139, 39/185 and 39/262
Location (LGA areas):	Shire of Menzies
Colloquial name:	Jasper Hills Project

### 1.2. Description of clearing activities

Brightstar Resources Limited proposes to clear up to 100 hectares of native vegetation within a boundary of approximately 780 hectares, for the purpose of mineral production. The project is located approximately 84 kilometres southeast of Laverton, within the Shire of Menzies.

The application is to allow for the mining expansion at Jasper Hills (Brightstar Resources Limited, 2024).

### 1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	25 June 2025
Decision area:	100 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 Energy, Mines, Industry Regulation and Safety (DEMIRS) advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix AA), relevant datasets (Appendix E), the results of a flora and vegetation surveys, the clearing principles set out in Schedule 5 of the EP Act (Appendix BB), 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:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- potential impacts to priority flora species *Bossiaea eremaea* (P3), *Calandrinia* sp. Menzies (F. Hort et al. FH 4100) (P3) and *Goodenia lyrata* (P4);
- the loss of native vegetation that is suitable habitat for malleefowl (*Leipoa ocellata*, VU), brushtail mulgara (*Dasycercus blythi*, P4) and six other conservation listed species; and
- potential land degradation in the form of wind and water erosion.

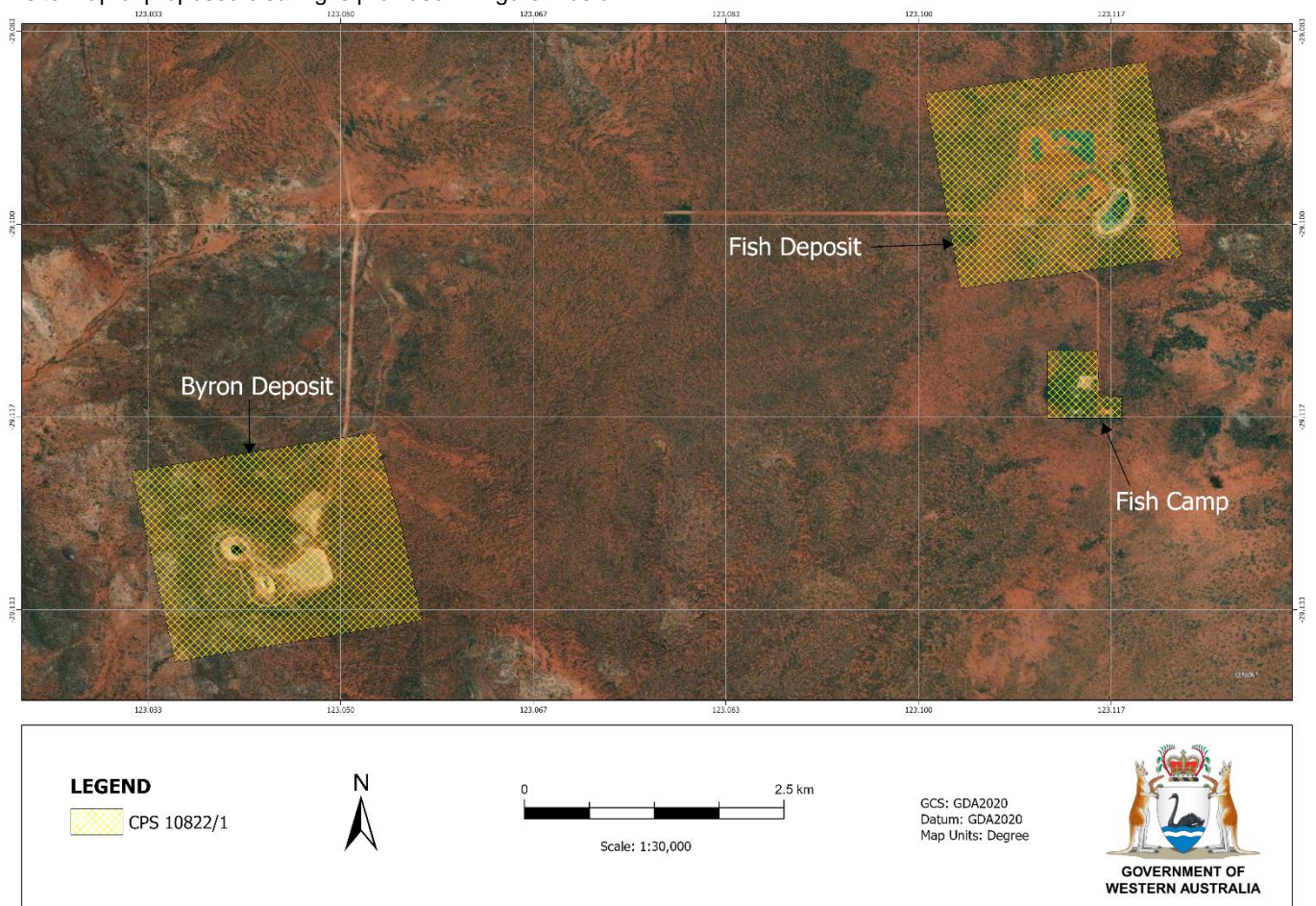
After consideration of the available information, as well as the applicant's minimisation and mitigation measures (Section 3.1), the Delegated Officer determined the proposed clearing can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

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

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- commence construction no later than six months after undertaking clearing to reduce the risk of erosion;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- a 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;
- a 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;
- a fauna management condition (brush-tailed mulgara) condition requiring areas proposed to be cleared be inspected to identify brush-tailed mulgara, and to maintain a 10 metre buffer around identified active mulgara burrows;
- flora management measures to carry out a pre-clearance flora survey to demarcate and avoid the clearing of priority species; *Bossiaea eremaea*, *Calandrinia* sp. Menzies (F. Hort et al. FH 4100) and *Goodenia lyrate* within the application area.

## 1.5. Site map

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



**Figure 1. Map of the application area. The yellow area indicates the area within which conditional authorised clearing can occur under the granted clearing permit. Byron deposit, Fish deposit and Fish camp labelled respectively.**

## 2. Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)
- Survey guidelines for Australia's threatened birds (DEWHA, 2017)

### 3. Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values. Control measures were submitted by the applicant demonstrating (Botanica Consulting, 2024):

- mine expansion has been planned in previously disturbed areas/ adjacent to existing mine to minimise vegetation disturbance;
- progressive vegetation clearing rather than wide scale clearing at the start of the project;
- training and awareness regarding clearing procedures and fauna management;
- weed management;
- fire management;
- fauna management; and
- topsoil will be harvested prior to development and stockpiled in designated areas in accordance with a topsoil management plan implemented during operations, stockpiles constructed to a maximum height of two metres.

#### 3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles identified that the impacts of the proposed clearing present a risk to biological values (fauna, adjacent flora and vegetation). 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

###### **Flora**

Western Botanical conducted a targeted assessment of the flora and vegetation of the application area (Byron and Fish deposits; site map 1.5) and broader survey area, approximately 3,068 hectares (Western Botanical, 2020). The survey was conducted from 16 to 22 July 2020, with survey limitations including fire, and dry seasonal conditions (Western Botanical, 2020). The fire occurred November 2018 and burnt approximately 222 hectares of the application area (GIS Database) Terrestrial Ecosystems (2024) noted in some areas, a fire had appeared to have occurred less than a year prior. The survey identified 16 vegetation associations and 91 endemic flora species (Western Botanical, 2020). No threatened and priority flora were recorded, four undescribed taxa were recorded (Western Botanical, 2020).

Native Vegetation Solutions (NVS) conducted a reconnaissance flora and vegetation survey within the application area (Fish Camp; site map 1.5) approximately 31.95 hectares, and other survey areas approximately 56 kilometres and 110 kilometres northwest, from the application area, approximately 1,005.35 hectares total (NVS, 2024; GIS Database). The survey was conducted from 20 to 22 of May 2024 (NVS, 2024).

###### ***Bossiaea eremaea***

*Bossiaea eremaea* (P3) occurs on deep red aeolian sandplains, within the Eastern Murchison and Shield subregions extending from approximately 89 kilometres southeast of Laverton to 110 kilometres northwest of Leinster, and approximately 164 kilometres west of Leinster (Western Australian Herbarium, 1998-; Western Botanical, 2020; GIS Database). This species is known from 19 records, two of which occur within conservation estate in the Eastern Murchison subregion, there is one record of *B. eremaea* less than 2 kilometres southeast of the application area. There is currently no conservation estate in the Shield subregion protecting this species, if a population were to occur within the application area the proposed clearing would have a local impact on this species.

Sandplain spinifex with *Eucalyptus gongylocarpa* (SAGS) vegetation association occurs within the application area which is potentially suitable habitat for *B. eremaea*, however *B. eremaea* was not recorded during flora surveys (NVS, 2024; Western Botanical, 2020). However, the dry seasonal conditions and the fire that occurred within the application area a few years prior means presence or absence could not be determined at the time of the survey (Western Botanical, 2020; GIS Database).

#### ***Calandrinia* sp. Menzies (F. Hort et al. FH 4100)**

*Calandrinia* sp. Menzies (F. Hort et al. FH 4100) (P3) is an annual species that occurs within Eastern Murchison and along the border of Eastern Murchison and Shield subregion west of Lake Carey, on loams, gravels and hardpan plains (Western Herbarium, 1998-; GIS Database). There are known five records of this species, with no known records on conservation estate (GIS Database). The nearest record of this species less than 69 kilometres west of the application area (Western Australian Herbarium, 1998-; GIS Database). If this species was recorded within the application area the extent of this species occurrence would be increased (Western Australian Herbarium, 1998-; GIS Database).

There is potential habitat within the application area consisting of suitable soil type and vegetation (Western Australian Herbarium, 1998-; Western Botanical, 2020). However, the dry seasonal conditions and the fire that occurred within the application area a few years prior means presence or absence could not be determined at the time of the survey (Western Botanical, 2020).

#### ***Goodenia lyrata***

*Goodenia lyrata* (P4) is an annual prostrate herb that occurs in red sandy loams near claypans, hardpan plains and salt lake margins (Western Australian Herbarium, 1998-; Western Botanical, 2020). There is only one record of this species, located approximately 110 kilometres northwest of the application area (Western Australian Herbarium, 1998-; GIS Database).

There is potential habitat within the application area consisting of suitable soil type and hardpan plains (Western Australian Herbarium, 1998-; Western Botanical, 2020). Vegetation association is unknown, as there is one record of this species that lacks vegetation description (Western Australian Herbarium, 1998-). However, the dry seasonal conditions and the fire that occurred within the application area a few years prior means presence or absence could not be determined at the time of the survey (Western Botanical, 2020). Additionally, the survey was completed outside of flowering period for this species, therefore there is potential the species was not detectable during this survey (Western Australian Herbarium, 1998-). If this species was recorded within the application area the extent of this species occurrence would be increased (Western Australian Herbarium, 1998-; GIS Database).

#### **Species of Interest**

Western Botanical (2020) identified five potential species of interest, four representing undescribed species not formally recognised by WA Herbarium and one representing a population near the northern limit of its known range;

- *Acacia murrayana* narrow phyllode form (G & S Cockerton 40247), informal name
- *Eucalyptus lesouefii* pruinose adult foliage form (G & S Cockerton WB40262), informal name
- *Ptilotus obovatus* upright form (G. Cockerton & G. O'Keefe 12281), informal name
- *Eriachne mucronata* desert form glabrous (G & S Cockerton WB40048), informal name
- *Alectryon oleifolius* subsp. *canescens*, at northern limit of known range

*Acacia murrayana* narrow phyllode form (G & S Cockerton 40247) this species is well-known and is highly variable, this species is widespread in Central Australia, however this taxon is undescribed (Western Botanical, 2020). Within the application area, 31 mature trees and 10 juvenile saplings were recorded, 20 mature trees were recorded adjacent to the application area, additionally, this taxon has previously been recorded outside the application area (Brightstar, 2025; Western Botanical, 2020). Future studies may show a need to recognise infraspecific taxa to accommodate the considerable variation in phyllode shape, width and colour (Maslin, 2018).

*Eucalyptus lesouefii* pruinose adult foliage form (G & S Cockerton WB40262) is present within and adjacent to the application area, near the Byron deposit (Western Botanical, 2020). It is present on similar landform and geology approximately four kilometres north-west of the application area (Western Botanical, 2020). There is potential this taxon is a new subspecies of the commonly recorded *E. lesouefii* (Western Botanical, 2020).

*Ptilotus obovatus* upright form (G. Cockerton & G. O'Keefe 12281) is present common within the application area occurring as major and minor components of multiple vegetation associations within the application area (Western Botanical, 2020). This species is widespread on similar landforms in the Laverton to Wiluna region (Western Botanical, 2020).

*Eriachne mucronata* desert form glabrous (G & S Cockerton WB40048) is present within the application area occurring as major and minor components of multiple vegetation associations within the application area (Western Botanical, 2020). This taxon is known outside of the application area from the Wanjarri Nature Reserve north of Leinster (Western Botanical, 2020).

#### **Introduced Flora**

One weed species, *Sonchus oleraceus* was recorded within the application area (NVS, 2024). This species is not considered a Declared Pests under the BAM Act (NVS, 2024). However, weeds have potential to outcompete native flora and reduce biodiversity of an area.

#### **Conclusion**

#### ***Bossiaea eremaea*, *Calandrinia* sp. Menzies (F. Hort et al. FH 4100) and *Goodenia lyrata***

The application area occurs within the known range of *Bossiaea eremaea*, there is potential for this species to occur within the application area as there is suitable habitat within the application area. The presence / absence of this species could not be confirmed as previous surveys were limited by dry seasonal conditions and fire.

There are limited records of *Calandrinia* sp. Menzies (F. Hort et al. FH 4100), the proposed clearing may cause impact to this species at a local and regional level if there were to be a population present within the application. Previous surveys were unable to detect this species due to dry seasonal conditions and suitable habitat being recently burnt, and therefore the presence / absence of this species could not be confirmed.

There is only one known record of *Goodenia lyrata*, the proposed clearing may cause impact to this species at a local and regional level if there were to be a population present within the application. As previous surveys were conducted outside of this species flowering period it's presence /absence within the application area cannot be confirmed.

### Species of Interest

The proposed clearing is unlikely to significantly impact these species at a local level. These formally undescribed taxa have been recorded at sites great distances from the application area; therefore, it can be assumed that these species likely occur in vegetation between the application area and the other known sites. In the Shield and neighbouring Eastern Murchison subregion vegetation is largely unfragmented, so there is likely suitable habitat occupied by these undescribed taxa, as the species are widespread locally and regionally.

### Introduced Flora

Potential impacts to biodiversity as a result of the proposed clearing may be minimised by implementing the weed management condition.

### Conditions

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

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds; and
- flora management measures to carry out a pre-clearance flora survey to demarcate and avoid the clearing of priority species; *Bossiaea eremaea*, *Calandrinia* sp. Menzies (F. Hort et al. FH 4100) and *Goodenia lyrata* within the application area

## 3.2.2. Biological values (fauna) - Clearing Principle (b)

### Fauna

Terrestrial Ecosystems conducted a basic vertebrate fauna risk assessment of the application area and additional mining tenements of the Laverton Operations project area (Terrestrial Ecosystems, 2024). The Laverton Operations 'project area' includes the application area, Fish and Byron deposits, Cork Tree Hill deposit located 106 kilometres northwest of the application area, and Beta deposit approximately 48 kilometres northwest of the application area, survey area approximately 1,579 hectares (Terrestrial Ecosystems, 2024). The site assessment was conducted from the 17 to 20 of April 2024 (Terrestrial Ecosystems, 2024). Limitations to this survey is a fire that occurred in November of 2018 which burnt approximately 222 hectares of the application area (GIS Database). Some areas of the application area have been described as burnt within the past year (Terrestrial Ecosystems, 2024).

### Malleefowl

Malleefowl (*Leipoa ocellata*, VU) occurs in semi-arid to arid shrublands and low woodlands dominated by mallee and associated habitats, such as broombush *Melaleuca uncinata* and native pine *Callitris* spp. scrub (DEWHA, 2017). At the extent of its range malleefowl can occur in non-mallee-dominated eucalypt woodlands, in central Australia malleefowl occurs in scrubs of acacia, however this is less frequent (DEWHA, 2017). Nesting habitat occurs in light sandy soil and where leaf litter is abundant, for the construction and heating of the incubation mound (DEWHA, 2017). This species forages on the ground in leaf litter or among low vegetation, such as herbs and shrubs (DEWHA, 2017).

Malleefowl are known to occur within the application area (Terrestrial Ecosystems, 2024; GIS Database). There are numerous records secondary sightings tracks, scratches and scats of malleefowl within the application area and local surrounds (20 kilometres) (Terrestrial Ecosystems, 2024; GIS Database). One malleefowl mound was recorded approximately less than one kilometre from the application area in stony ironstone mulga shrublands (SIMS) vegetation and one inactive mound was recorded within the application area in mulga woodland habitat (Terrestrial Ecosystems, 2024; Western Botanical, 2020). The application area contains mulga woodland habitat and eucalyptus over mulga shrubland (Terrestrial Ecosystems, 2024) which is potentially suitable habitat for foraging and breeding.

### Night parrot

The night parrot (*Pezoporus occidentalis*, CR) occurs in arid and semi-arid zones in spinifex *Triodia* or *Plectrachne* grasslands in stony or sandy areas such as sandplains, hills and escarpments (DEWHA, 2017). The night parrot requires low dense vegetation for roosting and nearby floodplains or other open low-lying areas with native grasses and herbs, often with few trees or shrubs (DBCA, 2024). Long-term stable roost sites are found in areas with long unburnt *Triodia* hummocks, particularly *Triodia* species that are ring forming (DBCA, 2024).

The application area occurs within a priority survey bioregion for the night parrot and contains multiple different spinifex sandplain vegetation associations (DBCA, 2024; Western Botanical, 2020). However, vegetation is unlikely to support suitable habitat for foraging and roosting as it has burnt within the past six years.



### **Southern whiteface**

The Southern whiteface (*Aphelocephala leucopsis*, P4) has a widespread but patchy distribution occurring in woodlands and tall shrublands with grassy understory or low shrub layer (Menkhurst *et al.*, 2017). This species has previously been recorded in the vicinity of the application area, the application area is likely to support a small population of Southern Whiteface (Terrestrial Ecosystems, 2024). There is suitable habitat within the application area, and this species has been recorded in mulga woodlands in adjacent areas (Terrestrial Ecosystems, 2024). This species breeds from July to December following sufficient rainfall, species nests in hollow limbs, crevices, or stumps, sometimes nests in small bushes (DCCEEW, 2023). Unless breeding, this species will readily move away from disturbed areas (Terrestrial Ecosystems, 2024).

### **Sandhill grasswren**

Sandhill grasswren (*Amytornis oweni oweni*, P4) (previously known as the straited grasswren (sandplain), *Amytornis striatus striatus*) inhabits sandy habitats in spinifex associations with or without shrubs or light tree cover, preferring areas with tall dense spinifex hummocks (Menkhurst *et al.*, 2017). This species was recorded approximately 16 kilometres from the application area (GIS Database). There is potential for this species to occur within the application area due to suitable habitat being present, however preferred dense spinifex habitat (SAWS and SAGS vegetation associations) has been burnt within the last six years (Western Botanical, 2020). Other unburnt sandplain spinifex vegetation associations (Sandplain Spinifex Mulga and Mallee (SAMA), and Sandplain Mulga-Spinifex Shrublands (SAMU)) occur within and adjacent to the application area (Western Botanical, 2020).

### **Brush-tailed mulgara**

Brush-tailed mulgara (*Dasycercus blythi*, P4) is a carnivorous marsupial distributed across much of the inland spinifex covered sandy desert and spinifex areas in the Pilbara and northern goldfields, however their distribution is patchy (Terrestrial Ecosystems, 2024). Brush-tail mulgara most frequently inhabits areas with mature spinifex grasslands, they are also known use vegetation types adjacent to spinifex grasslands, paleo drainage systems, or drainage lines in sand plain or dune habitats (Arid Zone Monitoring). There are eleven records within the local surrounds (20 kilometres) (GIS Database), and potential suitable spinifex habitat is present within the application area. SAMA, SAGS, and Mosaic of Lateritic Mulga and Wanderrie Shrubland and Sandplain Spinifex-Mulga Shrubland (LMWS/ SAMU) vegetation associations are likely to support the brush-tailed mulgara. SAGS and some areas of SAMA vegetation associations were burnt in late 2018, however it is unlikely recent burning of spinifex would shift the brush-tailed mulgara out of an area (Terrestrial Ecosystems, 2024; Thompson and Thompson, 2007).

### **Long-tailed dunnart**

Long-tailed dunnart (*Antechinomys longicaudatus*, P4) is distributed across the Gibson Desert, southern Carnarvon Basin, Rangelands and Pilbara in WA, the closest record is 67 kilometres northwest of the application area (WA Museum, 2025). The long-tailed dunnart occurs in habitat with exposed rocky areas often on flat-topped hills, lateritic plateaus, sandstone ranges, breakaways (WA Museum, 2025). Little vegetation associated with long-tailed dunnart habitat, when vegetation does occur it includes sparse mulga over spinifex hummocks grass and shrubs (Diopenes and Monaco, 2021). Despite few long-tailed dunnart records, when this species is found populations are reasonably abundant (WA Museum, 2025).

The application area contains a few small rocky outcrops (BIFs) vegetated with sparse open mulga woodland rocky rise habitat that would be suitable for long-tailed dunnarts to occur in (Terrestrial Ecosystems, 2024). However, BIF habitat was described as small and isolated and unlikely to support long-tailed dunnarts (Terrestrial Ecosystems, 2024).

### **Sandhill dunnart**

The sandhill dunnart (*Sminthopsis psammophila*, EN) occurs in isolated populations in the southwestern and southeastern Great Victoria Desert and Eyre Peninsula in South Australia (DPaW, 2016). In Western Australia sandhill dunnarts occur in habitats comprising of tall and low open mallee with emergent marble gum (*Eucalyptus gongylocarpa*), over mixed shrublands and spinifex on yellow or yellow orange sand (DPaW, 2016). Habitats typically have mixed sized spinifex hummocks, dominated with stage 2 and 3 spinifex hummocks, but have been caught in stage 2-5 *Triodia desertorum*, *T. basedowii* and *T. rigidissima* habitats (DPaW, 2016). Sandhill dunnarts use spinifex hummocks to construct shelters and nests, either by burrowing near or in the centre of hummocks or constructing a nest chamber of spinifex needles, which provide refuge from predators (DPaW, 2016).

Spinifex hummocks within the application area are sparse and lack overstory, due to the recent fire. The recent fire has resulted in large areas of bare ground in between spinifex hummocks which is unsuitable for the sandhill dunnart. The closest record of sandhill dunnart was recorded approximately 39 kilometres from the application area (Kingfisher, 2024).

### **Great desert skink**

The great desert skink (*Liopholis kintorei*, VU) is a large burrowing lizard that occurs in red sandplains vegetated with spinifex (*Triodia basedowii*, *T. pungens* and *T. schinzii*) scattered shrubs and occasional trees (*Acacia*, *Eremophila*, *Grevillea*, *Hakea* and occasionally *Eucalyptus* spp.) (McAlpin, 2001). Extensive areas of dunes fields, rocky ranges and mulga woodlands are considered unsuitable habitat (McAlpin, 2001). The application area contains Sandplain Spinifex Mulga and Mallee (SAMA), and Spinifex-Mulga Shrubland with *Eucalyptus gongylocarpa* habitat which potentially suitable habitat for the great desert skink, the application area also contains large areas of habitat considered unsuitable (NVS, 2024; Western Botanical, 2020). Majority of suitable habitat within the application area has been recently burnt and is potentially unsuitable habitat for the great desert skink (McAlpin, 2001; GIS Database). In addition, great desert skinks are unlikely to survive wildfires as prey is lost and distances to suitable habitat is too great (McAlpin, 2001; GIS Database).

### Conclusion

### **Malleefowl**

This species is known to forage and breed within the application area. Potential impacts to this species can be minimised with the implementation of a pre-clearing survey during both breeding and non-breeding season, and the implementation of a slow directional clearing condition to allow individuals within the application area to move into adjacent suitable habitat.

#### **Night parrot**

The proposed clearing is unlikely to significantly impact this species given there is no dense long unburnt vegetation suitable for foraging or roosting within the application area.

#### **Sandhill grasswren and southern whiteface**

It is unlikely these species will be significantly impacted by the proposed clearing, as adjacent suitable habitat is available. Impacts can be minimised through the implementation of a slow directional clearing condition.

#### **Brush-tailed mulgara**

Potential impacts to this species can be minimised with the implementation of a pre-clearing survey to identify potential burrows in the area and the implementation of a slow directional clearing condition to allow individuals within the application area to move into adjacent suitable habitat.

#### **Long-tailed dunnart**

The long-tailed dunnart is unlikely to be significantly impacted by the proposed clearing, as there is limited and isolated suitable habitat within the application area. Potential impacts to this species can be minimised by implementing a slow directional clearing condition to allow species to move into adjacent suitable habitat.

#### **Sandhill dunnart and great desert skink**

These species are unlikely to be significantly impacted as it is unlikely to occur within the application area due to suitable habitat being burnt by a recent fire. Once vegetation has regenerated it is likely that the application area will contain suitable habitat for these species.

#### Conditions

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

- a 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;
- a 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;
- a fauna management condition (brush-tailed mulgara) condition requiring areas proposed to be cleared be inspected to identify brush-tailed mulgara, and to maintain a 10 metre buffer around identified active mulgara burrows;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

### **3.3. Relevant planning instruments and other matters**

The clearing permit application was advertised on 14 February 2025 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WCD2023/002) over the area under application (DPLH, 2025). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group (Nyalpa Pirniku). However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2025). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

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

Other relevant authorisations required for the proposed land use include:

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

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

**End**

## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	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 native vegetation and non-perennial lakes, 36 kilometres north of Lake Minigwal (GIS Database). The predominant land use in the area is Aboriginal Reserves, conservation reserves, grazing native pastures, lakes and major watercourses and UCL and Crown Reserves (CALM, 2002).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (Terrestrial Ecosystems, 2024; GIS Database).
Conservation areas	There are no conservation areas in or within close proximity to the application area (20 kilometres) (GIS Database). The nearest conservation area is Queen Victoria Spring Nature Reserve approximately 121 kilometres south of the application area (GIS Database).
Vegetation description	<p>The application area occurs within the IBRA Great Victorian Desert bioregion in the Great Victorian Desert Shield subregion (GVD1) (GIS Database). The vegetation of the application area is broadly mapped as the following Beard vegetation associations:</p> <ul style="list-style-type: none"> <li>• <b>Great Victorian Desert 18:</b> low woodland, open low woodland or sparse woodland; and</li> <li>• <b>Great Victorian Desert 1239:</b> tree-and-shrub-steppe (GIS Database).</li> </ul> <p>A flora and vegetation survey was conducted over the application area by Western Botanical during August 2020, and by Native Vegetation Solutions during May 2024. The following vegetation associations were recorded within the application area (NVS, 2024; Western Botanical, 2020):</p> <p><b>Sandplains</b></p> <ul style="list-style-type: none"> <li>• <b>SAMA:</b> sandplain spinifex mulga and mallee</li> <li>• <b>SAGS:</b> sandplain spinifex with <i>Eucalyptus gongylocarpa</i></li> <li>• <b>LMWS:</b> lateritic mulga and wanderrie shrubland</li> <li>• <b>LMWS/ SAMU:</b> mosaic of lateritic mulga and wanderrie shrubland and sandplain spinifex-mulga shrubland</li> <li>• mulga over sandplain</li> </ul> <p><b>Low Hills</b></p> <ul style="list-style-type: none"> <li>• <b>CpW:</b> <i>Casuarina pauper</i> woodland</li> <li>• <b>CpW/MsS:</b> <i>Casuarina pauper</i> woodland and <i>Maireana sedifolia</i> shrubland mosaic</li> <li>• <b>EIWES:</b> <i>Eucalyptus lesouefii</i> pruinose adult foliage form (G &amp; S Cockerton WB40262) woodland with <i>Eremophila scoparia</i> understorey</li> <li>• <b>SIMS:</b> stony ironstone mulga shrublands</li> <li>• mulga shrubland</li> <li>• casuarina over sclerophyll shrubland</li> </ul> <p><b>Rocky Outcrops</b></p> <ul style="list-style-type: none"> <li>• <b>ChO:</b> shrublands on chert outcrops</li> <li>• <b>BIF Debris Slope:</b> mulga shrublands on banded ironstone formation debris slope</li> <li>• <b>BIF (ridge):</b> mulga shrublands on banded ironstone formation outcrop</li> <li>• mulga over banded ironstone formation</li> </ul> <p><b>Drainage Lines and Hardpan Plains</b></p> <ul style="list-style-type: none"> <li>• <b>HPMS:</b> hardpan mulga shrubland</li> <li>• <b>GRMU:</b> groved mulga shrubland</li> </ul> <p><b>Existing Disturbance</b></p>
Vegetation condition	<p>The vegetation surveys (NVS, 2024; Western Botanical, 2020) and aerial imagery indicate the vegetation within the proposed clearing area is in Very good to Completely degraded (Trudgen, 1991) condition, described as</p> <ul style="list-style-type: none"> <li>• <b>Very good:</b> Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.</li> </ul> <p>to</p> <ul style="list-style-type: none"> <li>• <b>Completely degraded:</b> Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.</li> </ul>



Characteristic	Details
	The area proposed to be cleared has previously been cleared for exploration activities, mining pits, waste dumps, tracks and haul roads, drill lines and access roads (NVS, 2024; Terrestrial Ecosystems, 2024; Western Botanical, 2020). Approximately 222 ha of the application area has been burnt by a wildfire that passed through the area in late 2018 (GIS Database). The full Trudgen (1991) condition rating scale is provided in Appendix C.
Climate and landform	The climate of the Great Victoria Desert Shield bioregion is arid, the average annual rainfall is 278.2 millimetres recorded at Laverton Aero (BoM, 2025; CALM, 2002). The application area is mapped within elevation areas of 440 to 460 meters Australian height datum (GIS Database).
Soil description	<p>The soil is mapped as a part of the following land systems (DPIRD, 2025; GIS Database):</p> <ul style="list-style-type: none"> <li>• <b>AB50 Atlas System (274b5):</b> Plains with scattered dunes and small breakaways of unit BY7; and</li> <li>• <b>BE15 Atlas System (274g9):</b> Gently undulating to low hilly pediments with stony and gravelly pavements and traversed by numerous seasonal streams.</li> </ul> <p>The application area is described as red sandy earth (Soil Group 463) and red-brown hardpan shallow loam (Soil Group 523) (GIS Database).</p>
Land degradation risk	Red sandy earth soils are susceptible to wind erosion (Schoknecht and Pathan, 2013). Red-brown hardpan shallow loam soils are susceptible to water erosion on sloping land and drainage lines (Schoknecht and Pathan, 2013).
Waterbodies	The desktop assessment and aerial imagery indicated that there is one minor, non-perennial watercourse transects the area proposed to be cleared (GIS Database). There are no permanent waterbodies that intersect the application area, the nearest waterbody is a non-perennial lake approximately 3.4 kilometres southwest of the application area (GIS Database).
Hydrogeography	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 the Laverton Water Reserve and Catchment Area located approximately 81 kilometres northwest of the application area (GIS Database). There are no Wetlands of International Importance or Nationally Important Wetlands that occur within the application area or in the local surrounds (20 kilometres) (GIS Database). The mapped groundwater salinity is between approximately 3,000 to 7,000 milligrams per litre total dissolved solids which is described as brackish to saline (GIS Database).
Flora	There are no records of Threatened flora species occurring within the application area or the local surrounds (20 kilometres) (NVS, 2024; Western Botanical, 2020; GIS Database). There are no Priority flora species within the application area (NVS, 2024; Western Botanical, 2020; GIS Database). However, there are records of three Priority flora that occur within the local surrounds (20 kilometres) (NVS, 2024; Western Botanical, 2020; GIS Database). An additional two Priority flora species have potential to occur within the application area (Western Botanical, 2020; GIS Database). Four novel flora species, and one population near the northern extent of the species known range identified by Western Botanical (2020) within the application area.
Ecological communities	There are no records of Threatened or Priority Ecological Communities within the application area or the local surrounds (20 kilometres) (GIS Database). The nearest Priority Ecological Community is Mount Linden Range vegetation complex (banded ironstone formation) (P3) approximately 62 kilometres west of the application area (GIS Database).
Fauna	There are four fauna of conservation significance within the local surrounds (20 kilometres) (Terrestrial Ecosystems, 2024; GIS Database), and an additional twelve conservation significance species that occur within the subregion (Terrestrial Ecosystems, 2024).
Fauna habitat	<p>Six broad fauna habitats were identified within the application area with 115.17 hectares consisting of disturbed area (Terrestrial Ecosystems, 2024):</p> <ul style="list-style-type: none"> <li>• mulga woodland;</li> <li>• mulga woodland with eucalypts;</li> <li>• mulga drainage;</li> <li>• rocky rise;</li> <li>• open eucalypt woodland with low shrubs; and</li> <li>• sparse sheoak woodland.</li> </ul>

## A.2. Flora analysis table

With consideration for the site characteristics set out above, relevant data sets (see Appendix E.1), and biological survey information, impacts to the following conservation significant flora required further consideration (NVS, 2024; Western Botanical, 2020; GIS Database).

Species name	Conservation status	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, N/A]
<i>Bossiaea eremaea</i>	P3	Y	Y	Y	>2	19	N
<i>Melaleuca apostiba</i>	P3	N	N	Y	>10	14	Y
<i>Philothea linearis</i>	P1	N	Y	N	>5	4	Y
<i>Calandrinia</i> sp. Menzies (F. Hort et al. FH 4100)	P3	Y	Y	Y	>69	5	N
<i>Goodenia lyrata</i>	P4	Y	Unknown	Y	>111	1	N

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

### A.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant data sets (see Appendix E.1), and biological survey information, impacts to the following conservation significant fauna required further consideration. (Terrestrial Ecosystems, 2024; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)
<b>Mammals</b>				
Brushtail Mulgara ( <i>Dasycercus blythi</i> )	P4	Y	Y	<6
Long-tailed Dunnart ( <i>Antechinomys longicaudatus</i> )	P4	Y	Y	<67
Sandhill Dunnart ( <i>Sminthopsis psammophila</i> )	EN	Y	Y	<39
<b>Birds</b>				
Malleefowl ( <i>Leipoa ocellata</i> )	VU	Y	Y	0
Night Parrot ( <i>Pezoporus occidentalis</i> )	CR	N	Y	<364
Southern whiteface ( <i>Aphelocephala leucopsis</i> )	P4	Y	Y	<20
Sandhill grasswren ( <i>Amytornis oweni oweni</i> )	P4	Y	Y	<16
<b>Reptile</b>				
Great desert skink ( <i>Liopholis kintorei</i> )	VU	Y	Y	<72

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

### Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity." <u>Assessment:</u> The area proposed to be cleared contains potential habitat for priority flora.	At variance	Yes  Refer to Section 3.2.1, 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." <u>Assessment:</u> The area proposed to be cleared contains foraging and breeding habitat for malleefowl ( <i>Leipoa ocellata</i> ) and potential habitat for seven conservation significant fauna.	At variance	Yes  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." <u>Assessment:</u>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
The area proposed to be cleared is unlikely to contain flora species listed under the BC Act (NVS, 2024; Western Botanical, 2020; GIS Database).		
<p><u>Principle (d):</u> <i>"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."</i></p> <p><u>Assessment:</u></p> <p>There are no known Threatened Ecological Communities (TECs) located within or in close proximity (20 kilometres) to the application area (NVS, 2024; Terrestrial Ecosystems, 2024; Western Botanical, 2020; GIS Database).</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 area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001). The current extent of vegetation associations remaining (Government of Western Australia, 2019):</p> <ul style="list-style-type: none"> <li>• <b>Great Victorian Desert 18:</b> 99.99%</li> <li>• <b>Great Victorian Desert 1239:</b> 99.99%</li> </ul> <p>The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (Terrestrial Ecosystems, 2024; 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 distance to the nearest conservation area (GIS Database), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	Not likely to 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 water courses or wetlands recorded within the application area (GIS Database). One minor ephemeral watercourse intersects the application area with vegetation communities associated with this watercourse is CpW/MsS and EIWEsS (Western Botanical, 2020). Potential impacts to vegetation associated with this vegetation can be minimised by the implementation of 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>The mapped soils are susceptible to wind and water erosion, particularly in sloped landscapes (Schoknecht and Pathan, 2013). Noting the location of the application area, the proposed clearing is likely to have an appreciable impact on land degradation. Potential erosion impacts as a result of the proposed clearing can be minimised by the implementation of a stated clearing condition to ensure large areas are not void of vegetation cover for extended periods.</p>	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 water courses, wetlands, and Public Drinking Water Sources Areas are recorded within the application area (GIS Database), the proposed clearing is unlikely to impact 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>There is one minor ephemeral watercourse that intersects the application area and numerous ephemeral watercourses and water bodies within the local surrounds that occur at lower elevations (GIS Database). The proposed clearing is unlikely to significantly contribute waterlogging as land is relatively flat with low hills.</p>	May be at variance	No

### Appendix C. Vegetation condition rating scale

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

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

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

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

## Appendix D. Mapping of various features within the survey area

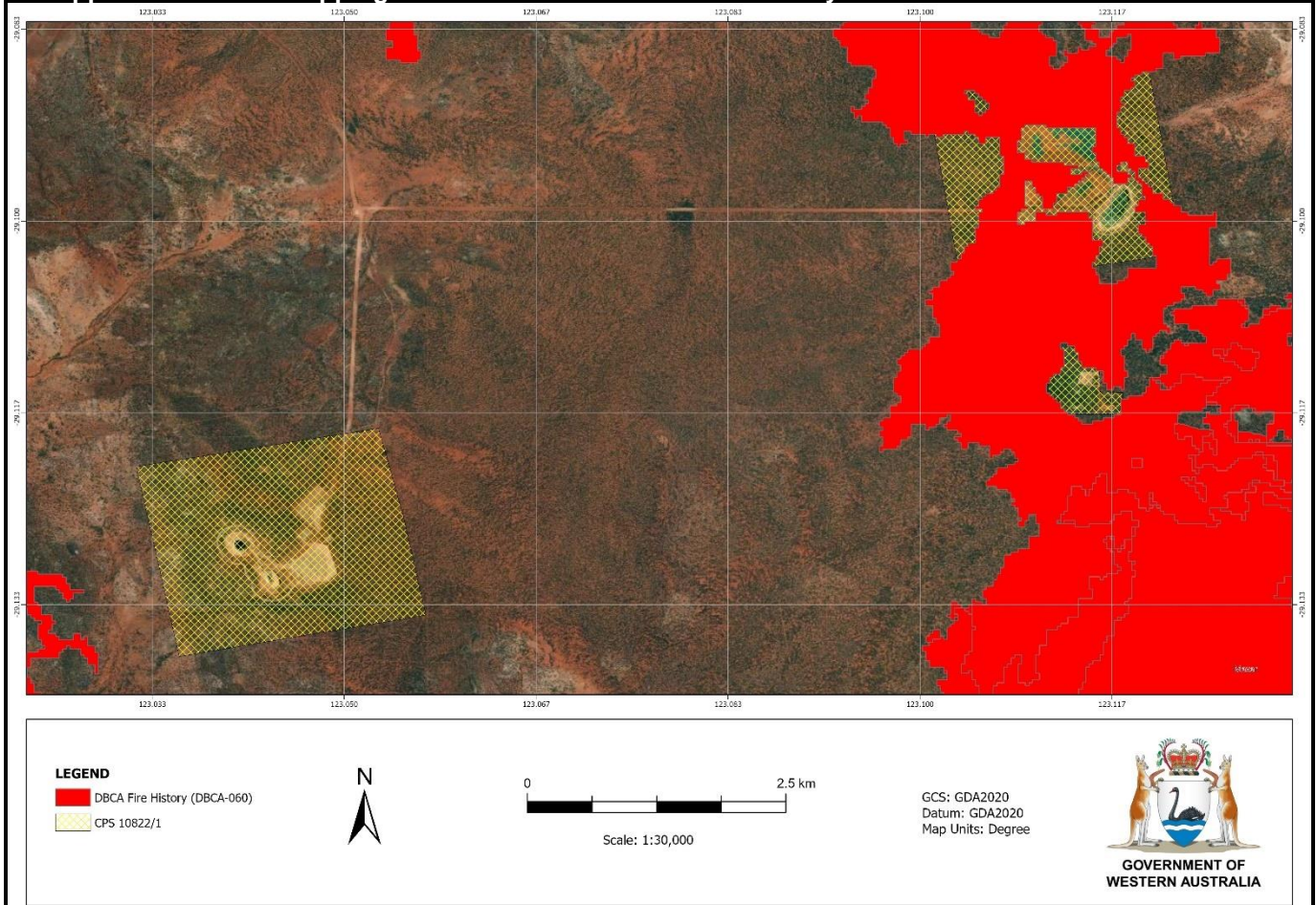


Figure 2. Map of the application area. The yellow area indicates the area within which conditional authorised clearing can occur under the granted clearing permit. The red indicates the area which has been previously burnt.



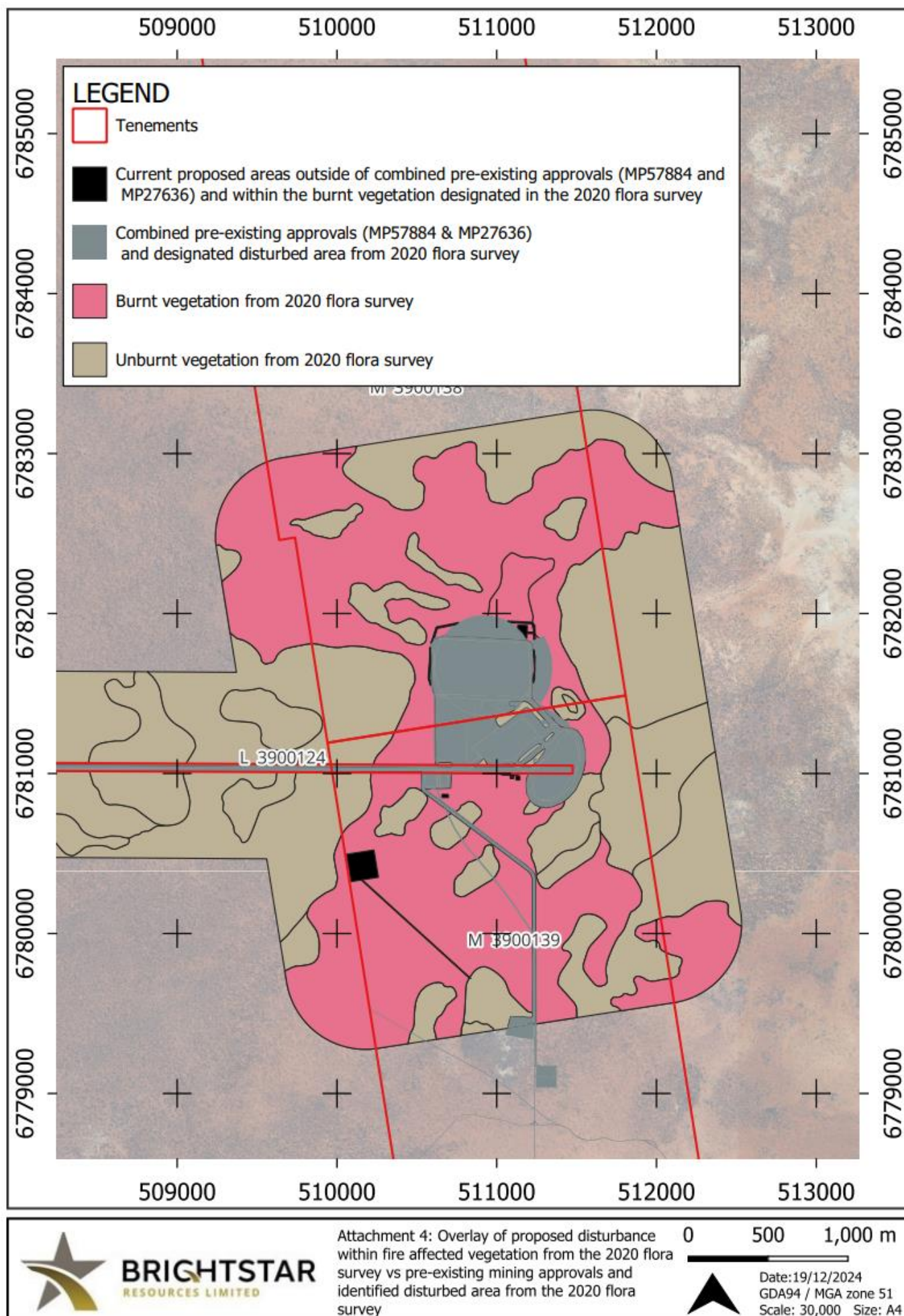
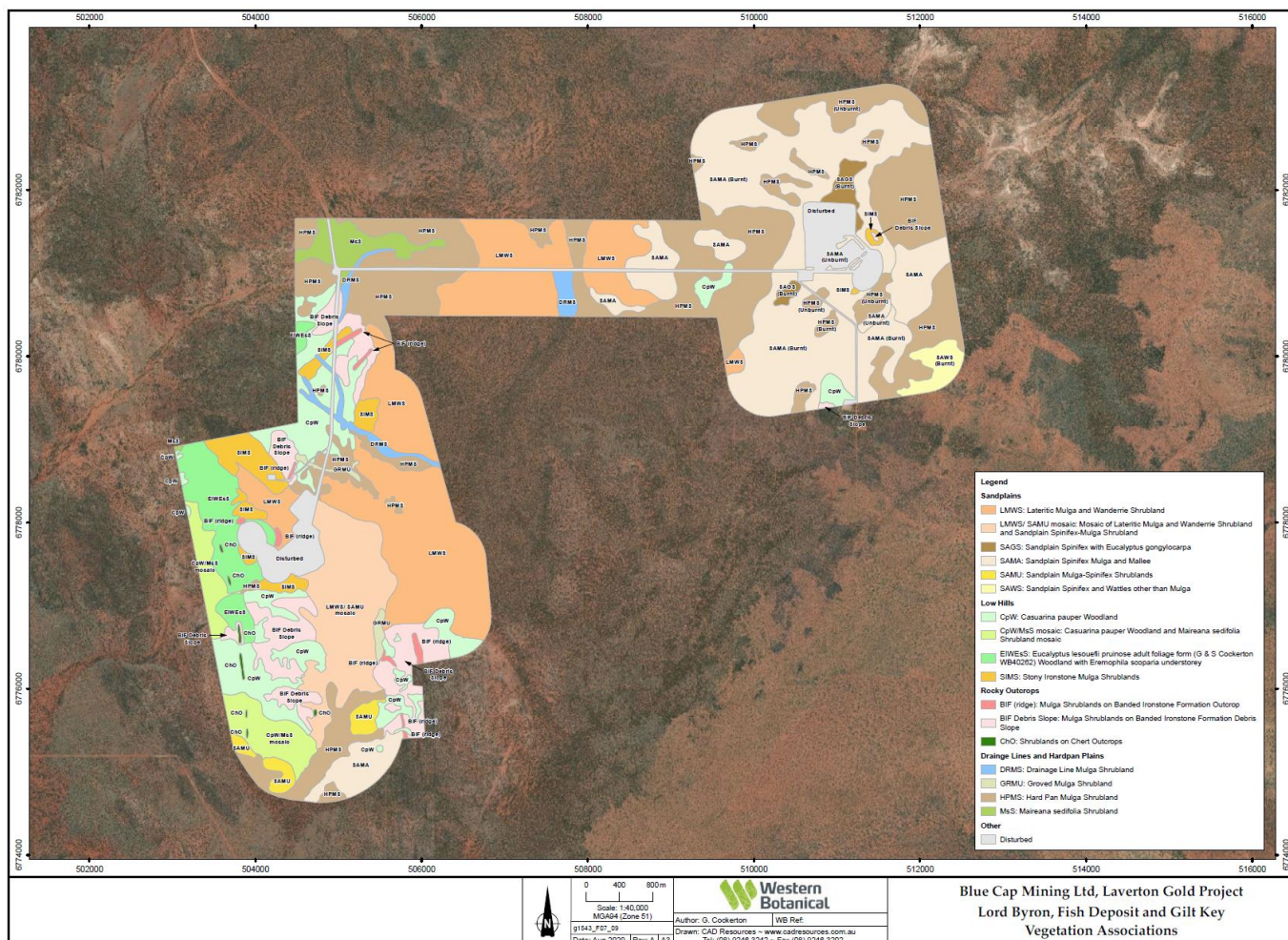


Figure 3. Map of burnt and unburnt vegetation from Western Botanical survey area in Fish Deposit area.





**Figure 4. Map of Western Botanical survey area application area. Vegetation associations mapped. Burnt areas labelled in Fish deposit area.**

## Appendix E. Sources of information

### E.1. GIS databases

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

- Cadastre (Polygon) (LGATE-217)
- Clearing Instruments Activities (Areas Approved to Clear) (DWER-076)
- Clearing Instruments Proposals (Areas Applied to Clear) (DWER-075)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- DoW Surface Water Lines
- DoW Surface Water Bodies
- EPA Referred Significant Proposals (DWER-120)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Medium Scale Topo Contour (Line) (LGATE-015)
- Native Title (Determination) (LGATE-066)
- Native Vegetation Extent (DPIRD-005)
- Night parrot survey bioregions
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- Reserves (LGATE-227)
- RIWI Act, Groundwater Areas (DWER-034)

- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Soil Landscape Mapping - Systems (DPIRD-064)
- Soil Landscape Mapping - Western Australia attributed by WA Soil Group (DPIRD-076)
- Townsites (LGATE-248)
- WA Now Aerial Imagery

Restricted GIS Databases used:

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

## E.2. References

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## 4. 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
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DEMIRS)
<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> (Federal 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.