

# Clearing Permit Decision Report

## 1. Application details and outcomes

### 1.1. Permit application details

Permit number:	6630/3
Permit type:	Purpose Permit
Applicant name:	MacPhersons Resources Limited
Application received:	3 June 2025
Application area:	70 hectares
Purpose of clearing:	Mining infrastructure
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 25/355 and 26/490 Miscellaneous Licences 25/35 and 25/36
Location (LGA area):	City of Kalgoorlie-Boulder
Colloquial name:	Boorara Project

### 1.2. Description of clearing activities

Clearing permit CPS 6630/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Petroleum and Exploration) on 13 August 2015 and was valid from 5 September 2015 to 5 September 2020 (DMP, 2015). The permit authorised the clearing of up to 70 hectares of native vegetation within a boundary of approximately 402 hectares, for the purpose of mining infrastructure (DMP, 2015).

CPS 6630/1 was amended on 28 May 2020 to extend the permit duration by five years until 5 September 2025 (DMIRS, 2020). The area of clearing authorised and the permit boundaries remained unchanged (DMIRS, 2020).

MacPhersons Resources Limited applied on 3 June 2025 to amend CPS 6630/2 to extend the permit duration by five years until 5 September 2030 (MacPhersons, 2025). The area of clearing authorised and the permit boundaries remain unchanged (MacPhersons, 2025).

Up to 21 August 2025, approximately 0.9 hectares of native vegetation has been cleared under CPS 6630/1 and CPS 6630/2 (Horizon, 2020; 2021; 2022; 2023; 2024; MacPhersons, 2016; 2017; 2018; 2019; Appendix A).

### 1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	2 September 2025
Decision area:	70 hectares of native vegetation

### 1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) 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 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix B), relevant datasets (Appendix E), supporting information provided by the applicant (Appendix A), 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 Delegated Officer also took into consideration the purpose of the clearing for mining infrastructure.

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 conservation significant flora;
- the loss of native vegetation that may include critical habitat for arid bronze azure butterfly (ABAB), inland hairstreak, western rosella (inland) and the central long-eared bat; and
- potential land degradation in the form of erosion, and siltation of watercourses caused by soil 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 applicant has suitably demonstrated avoidance and minimisation measures.

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;
- engage a botanist to conduct a targeted flora survey for the presence of threatened and priority flora prior to clearing and maintain a 50 metre buffer of identified threatened flora and a 10 metre buffer of identified priority flora;
- a fauna management (arid bronze azure butterfly) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat, ant colonies and ABAB individuals and no clearing within 100 metres of ant colonies;
- a fauna management (inland hairstreak butterfly) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat and inland hairstreak individuals, and no clearing within 50 metres of inland hairstreak butterfly host plants;
- inspect suitable western rosella (inland) and central long-eared bat habitat trees within the application area for hollows, and avoid clearing hollow bearing trees and within 10 metres of them; and
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion.

The assessment has not changed since the assessment for CPS 6630/2, except in the case of principle (b) and principle (i). These changes are discussed further in Section 3.2.

The Delegated Officer determined that the proposed extension of duration is not likely to lead to an unacceptable risk to environmental values.

## **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)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)

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)
- Guidance for the Assessment of Environmental Factors – *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia* (EPA, 2004b)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016b)

## **3. Detailed assessment of application**

### **3.1. Avoidance and mitigation measures**

The applicant states that clearing will be avoided and minimised where possible, by only clearing for mineral exploration, resource definition drilling and planned site infrastructure to the extent which is required for access and conduct of operations (MacPhersons, 2025).

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**

The assessment has not changed since the assessment for CPS 6630/2, except in the case of principle (b) and principle (i). The changes to the status and distribution of arid bronze azure butterfly (ABAB) since the original assessment is considered under principle (b) in this assessment. Upon further review, the delegated officer identified more fauna species which require consideration under principle (b) of this assessment. Upon further review, the delegated officer determined the proposed clearing may be at variance to principle (i), given the susceptibility of soils within the application area to erosion could lead to siltation of watercourses within the application area.

The proposed amendment may have significant impacts on conservation significant flora and fauna and their habitats. These potential impacts are discussed in Sections 3.2.1 and 3.2.2.

### 3.2.1. Biological values (flora) - Clearing Principle (a)

#### Assessment

##### **Flora diversity**

The Boorara flora survey (Mattiske, 2014) recorded a total of 118 vascular plant taxa which consisted of 54 genera and 25 families while the borefield corridor survey (Mattiske, 2012) recorded a total of 79 vascular plant taxa consisting of 41 genera and 22 plant families. For both surveys, the majority of taxa recorded were representative of the Chenopodiaceae, Myrtaceae, Fabaceae, Asteraceae and Scrophulariaceae families (Mattiske, 2012; 2014).

The application area is considered to be within an area of high flora and fauna diversity. This is likely attributed to the excellent to pristine condition of the vegetation. However, the application area is not considered to represent an area of relatively higher biodiversity, as the vegetation types within the application area are well represented in the region (Mattiske, 2012; 2014).

##### **Priority flora**

No priority flora species were identified in surveys of the application area (Mattiske, 2012; 2014).

The Boorara flora survey (Mattiske, 2014) included surveys of three study areas, Survey Area 1, Survey Area 2 and Survey Area 3. Survey Area 1 was surveyed in April 2014 and has an area of 459.27 hectares (Mattiske, 2014). Survey Areas 2 and 3 were surveyed together in September 2014 and had a total area of 191.62 hectares (Mattiske, 2014).

The borefield corridor survey (Mattiske, 2012) was a reconnaissance survey undertaken over two days from 20-22 November.

The desktop assessment identified 22 priority flora species potentially occurring within the application area, based on availability of suitable habitat (Western Australian Herbarium, 1998-; GIS Database). Of these, only four species were included in the desktop assessment by Mattiske (2012; 2014). Therefore, it is unlikely the other 18 species potentially occurring were targeted during the flora survey.

Some of these species were unlikely to have been detected in the survey, based on seasonal conditions and survey timing, as well as the age of the surveys and regional records (Mattiske, 2012; 2014; Western Australian Herbarium, 1998-; GIS Database). Therefore, it is recommended that targeted flora surveys are conducted to determine whether Priority flora are present within the application area.

##### **Weeds**

Several introduced plant taxa were recorded in both survey areas (Mattiske, 2012; 2014). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

#### Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on flora biodiversity can be managed through a flora management condition and a weed management condition.

#### Conditions

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

- prior to any clearing, a botanist shall be engaged to conduct a targeted flora survey for the presence of threatened and priority flora. The species will be flagged and an appropriate buffer will be erected to ensure the preservation of identified individuals; 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

##### **Fauna habitats**

No fauna surveys have been conducted over the application area (DMP, 2015). Using the vegetation units recorded in the flora and vegetation surveys, two broad habitat types can be inferred:

- Eucalypt Woodlands; and
- Mixed Shrublands and Scrubs (Mattiske, 2012; 2014).

The following conservation significant fauna require consideration based on the availability of suitable habitat within the application area.

##### **Arid bronze azure butterfly (ABAB)**

Arid bronze azure butterfly (ABAB) (*Ogyris subterrestris petrina*), Critically Endangered, is threatened by clearing and habitat degradation (DBCA, 2025b). The ABAB has an obligate association with a sugar ant *Camponotus* sp. nr. *terebrans*, so critical breeding habitat for ABAB are areas which have colonies of the host ant (DBCA, 2025b). The host ant creates nests at the base of smooth-barked *Eucalyptus* trees (DBCA, 2025b). *Eucalyptus salmonophloia* (salmon gum) is a known ABAB host ant habitat tree and is a dominant species over much of the application area (DBCA, 2025b; Mattiske, 2012; 2014). As there is suitable habitat for the host ant within the application area, it is considered that ABAB could occur.

##### **Inland hairstreak**

Inland hairstreak (*Jalmenus aridus*), Priority 2, is a butterfly species known from the Goldfields region (DBCA, 2025a). Preferred habitat for inland hairstreak consists of open woodland with flowering shrubs such as those from the *Senna*, *Eremophila*, *Scaveola* and *Maireana* genera (Eastwood et al., 2023). The biological surveys by Mattiske (2012; 2014) indicate that over the

survey area, the *Eremophila* genus represents the dominant understorey genus (as well as *Atriplex*). *Jalmenus aridus* larvae feed on *Senna artemisioides* subsp. *filifolia*, which was recorded as a representative species of the C1, C2 and E9 vegetation types (Eastwood et al., 2023; Mattiske, 2012; 2014).

#### **Western rosella**

Western rosella (inland) (*Platycercus icterotis xanthogenys*), Priority 4, inhabits drier eucalypt and sheoak woodlands and scrubs, especially those containing wandoo (*E. wandoo*), flooded gum, salmon gum (*E. salmonophloia*), tall mallee and rock sheoak (*Allocasuarina huegeliana*) (Birdlife Australia, 2017; DEC, 2009). *Eucalyptus salmonophloia* (salmon gum) is a dominant species over much of the application area (Mattiske; 2012; 2014). The species nests in tree hollows, and prefers *Casuarinas* for foraging (Garnett & Crowley, 2000b). Suitable foraging habitat, and potentially suitable breeding habitat occur within the application area (Mattiske; 2012; 2014).

#### **Central long-eared bat**

Central long-eared bat (*Nyctophilus major tor*), Priority 3, inhabits dry woodlands and shrublands in arid and semi-arid regions (Menkhorst & Knight, 2011). It roosts mostly in tree hollows (Menkhorst & Knight, 2011). Woodlands within the application area may provide suitable habitat for this species.

#### **Malleefowl**

Malleefowl (*Leipoa ocellata*), Vulnerable, occur within arid and semi-arid woodlands (CALM, n.d.). The nearest malleefowl record is 1.4 kilometres from the application area (GIS Database). As breeding habitat for malleefowl requires a sandy substrate and a dense shrub layer, malleefowl are unlikely to nest within the application area (DCCEEW, 2024). This is due to the application area consisting of rocky or clayey soils, and habitat consisting of mostly open woodlands (Mattiske, 2012; 2014). Malleefowl may pass through the application area during dispersal.

#### **Carnaby's cockatoo**

Carnaby's cockatoo (*Zanda latirostris*), Endangered, usually occurs in the Southwest, Swan Coastal Plain, Southern Coast and Wheatbelt, with most records occurring south of 29°S and west of 120°E (Commonwealth of Australia, 2008; IUCN, 2022). However, there have been four recent (2016-2018) records of Carnaby's cockatoos in Kalgoorlie (GIS Database).

Carnaby's cockatoo breeding habitat includes Eucalyptus trees capable of producing suitable breeding hollows; this includes salmon gum, which is present within the application area (Commonwealth of Australia, 2022; Mattiske, 2012; 2014).

The distribution of Carnaby's cockatoos has become more restricted in the past 50 years, with the distribution moving further southwest (Commonwealth of Australia, 2008). As there are only four other Carnaby's cockatoo records within the Coolgardie bioregion – all being greater than 25 years old – it is believed that the aforementioned occurrences of Carnaby's cockatoos in Kalgoorlie were extraordinary (GIS Database). Therefore, it is unlikely that Carnaby's cockatoos occur within the application area, despite the presence of suitable habitat.

#### **Chuditch**

Chuditch (*Dasyurus geoffroyi*), Vulnerable, previously occurred throughout arid and semi-arid Australia, but is now restricted to south-west Western Australia (Commonwealth of Australia, 2008). Within their current range chuditch occur within jarrah forests and woodlands in south-western corner of Western Australia, woodlands, mallee shrublands and heaths along the south coast of Western Australia east to Ravensthorpe, and drier woodlands and mallee shrubland within the Wheatbelt and Goldfields region (DEC, 2012). The application area is located at the edge of this species known distribution and suitable habitat range (Commonwealth of Australia, 2008). It is unlikely that habitat within the application area is critical for chuditch.

#### Conclusion

#### **The following species may be impacted by the proposed clearing:**

**Arid bronze azure butterfly (ABAB):** As suitable habitat for the ABAB host ant was detected during the biological survey, a survey to detect whether the host ant is present in large numbers is recommended, to determine whether the application area includes critical breeding habitat for ABAB.

**Inland hairstreak:** As preferred habitat and flora host species occur within the application area, surveys for species' critical habitat are required.

**Western rosella and central long-eared bat:** tree hollows, which may occur within the application area represent breeding and roosting habitat for these species. Loss of this habitat may be significant, if these species occur within the application area.

#### **The following species are unlikely to be impacted by the proposed clearing:**

**Malleefowl:** As malleefowl breeding is unlikely to occur within the application area, and malleefowl is more likely to use the application for dispersal only, it is unlikely that malleefowl will be significantly impacted by the proposed clearing.

**Carnaby's cockatoo:** As there are limited records in the local area, and the application area is outside of the usual range of the species, it is unlikely that Carnaby's cockatoos occur within the application area.

**Chuditch:** Given the application area is outside of the core range of the species, it is unlikely that chuditch occurs within the application area.

For the reasons set out above, it is considered that the potential impacts of the proposed clearing on arid bronze azure butterfly, inland hairstreak, western rosella and central long-eared bat can be managed using the below conditions, to be environmentally acceptable. Other species discussed above are unlikely to be impacted by the proposed clearing.

#### Conditions

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

- A fauna management (ABAB) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat, ant colonies and ABAB individuals, and no clearing within 100 metres of ant colonies;
- A fauna management (inland hairstreak) 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; and
- A fauna management (western rosella and central long-eared bat) condition requiring areas proposed to be cleared to be surveyed to identify hollow trees suitable for habitation by these species, and no clearing within 10 metres of identified hollow trees.

### 3.3. Relevant planning instruments and other matters

The amendment application was advertised on 22 August 2025 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC2017/007 - Marlinyu Ghoorlie) over the area under application (DPLH, 2025). This claim/ has registered with the National Native Title Tribunal on behalf of the claimant group. The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 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 arid bronze azure butterfly, which is 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 (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.

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. Additional information provided by applicant

Summary of comment	Consideration of comment
Applicant confirmed that no clearing has been undertaken under this Permit during the period 1 July 2024 to 21 August 2025.	This information was considered as part of the site characteristics.

## Appendix B. Site characteristics

### B.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. It is located within the Eastern Goldfield subregion of the Coolgardie bioregion and closely borders the Eastern Murchison subregion of the Murchison bioregion (GIS Database).
Vegetation condition	<p>The vegetation surveys (Mattiske, 2012; 2014) indicate the vegetation within the proposed clearing area is in excellent to pristine (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive.</li> <li>Pristine: No obvious signs of disturbance.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix D.</p> <p>This vegetation condition is likely mostly unchanged since the assessment of CPS 6630/1, as only 0.9 hectares have been cleared under this Permit to 21 August 2025 (Horizon, 2020; 2021; 2022; 2023; 2024; MacPhersons, 2016; 2017; 2018; 2019; Appendix A).</p>
Hydrogeography	<p>The application area is not within any mapped Public Drinking Water Source Areas (PDWSA) or legislated surface water areas. The nearest PDWSA is the Broad Arrow Dam Catchment Area located approximately 50 kilometres to the northwest of the application area (GIS Database).</p> <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).</p> <p>The groundwater salinity level is recorded as 14,000-35,000 total dissolved solids milligrams per litre, which is described as saline water quality (NWGA, 2023; GIS Database).</p>
Flora	The local area (50 kilometre radius of the application area) contains records of 46 conservation significant flora species (GIS Database). 22 of these species inhabit soils which occur within the application area (Mattiske, 2012; 2014; Western Australian Herbarium, 1998-).
Ecological communities	<p>Surveys of the application area have not detected any Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECS) (Mattiske, 2012; 2014).</p> <p>There are no TECs known to occur within the Coolgardie bioregion (DBCA, 2023).</p> <p>There are two PECs recorded within a 50 kilometre radius of the application area (GIS Database). These are the Emu Land System PEC and the Mount Belches Banded Iron Formation (BIF) PEC (GIS Database). As the application area is not recorded to include BIF or the Emu land system, it is unlikely these PECs occur within the application area (Mattiske, 2012; 2014; GIS Database).</p>

### B.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix E.1), and biological survey information, impacts to the following conservation significant flora required further consideration (Mattiske, 2012; 2014; Western Australian Herbarium, 1998-).

Species name	Conservation status	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]
<i>Eremophila praecox</i>	P2	Y	<4	52	Y
<i>Eremophila xantholaemus</i>	P1	Y	<6	4	Y
<i>Xanthoparmelia dayiana</i>	P3	Y	<8	5	N
<i>Eremophila arachnoides</i> subsp. <i>tenera</i>	P3	Y	<14	18	N
<i>Ptilotus procumbens</i>	P1	Y	<16	5	N
<i>Austrostipa turbinata</i>	P3	Y	<16	25	Y
<i>Lepidium fasciculatum</i>	P3	Y	<19	13	Y

Species name	Conservation status	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]
<i>Elachanthus pusillus</i>	P2	Y	<19	7	N
<i>Alyxia tetanifolia</i>	P3	Y	<21	14	N
<i>Notisia intonsa</i>	P3	Y	<32	29	N
<i>Rhodanthe uniflora</i>	P1	Y	<32	3	N
<i>Eucalyptus websteriana</i> subsp. <i>norsemanica</i>	P1	Y	<39	15	N
<i>Cyathostemon divaricatus</i>	P1	Y	<39	7	N
<i>Ricinocarpos digynus</i>	P1	Y	<41	10	N
<i>Xanthoparmelia xanthomelanoides</i>	P2	Y	<42	7	N
<i>Eremophila caerulea</i> subsp. <i>merrallii</i>	P4	Y	<43	23	N
<i>Eremophila succinea</i>	P3	Y	<45	10	N
<i>Allocasuarina eriochlamys</i> subsp. <i>grossa</i>	P3	Y	<46	29	N
<i>Eucalyptus urna</i> subsp. <i>xesta</i>	P3	Y	<46	25	N
<i>Phlegmatospermum eremaeum</i>	P3	Y	<47	18	N
<i>Acacia crenulata</i>	P3	Y	<48	25	N
<i>Lepidium merrallii</i>	P2	Y	<50	3	N

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

### B.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix E.1), and biological survey information, impacts to the following conservation significant fauna required further consideration (Mattiske, 2012; 2014; GIS Database).

Likelihood of occurrence for these species was determined using species habitat preferences, age and location of known records and species distribution (Birdlife Australia, 2017; 2025; DBCA, 2025a; 2025b; Commonwealth of Australia, 2008; DCCEEW, 2024; DEC, 2009; 2012; DMP, 2015; Eastwood et al., 2023; Garnett & Crowley, 2000a; 2000b; Menkhorst & Knight, 2011; SEWPAC, 2011; Timms, 2008; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Discussed in CPS 6630/1? [Y/N]	Has assessment changed since CPS 6630/1? [Y/N/NA]	Likelihood of occurrence
<i>Leipoa ocellata</i> (malleefowl)	VU	Y	1.4	Y	Y	Possible – discussed in Section 3.2.2
<i>Jalmenus aridus</i> (inland hairstreak)	P2	Y	8.7	N	N/A	Possible – discussed in Section 3.2.2
<i>Ogyris subterrestris petrina</i> (arid bronze azure butterfly)	CR	Y	19.8	Y	Y	Possible – discussed in Section 3.2.2
<i>Platycercus icterotis xanthogenys</i> (western rosella (inland))	P4	Y	36.6	N	N/A	Possible – discussed in Section 3.2.2
<i>Nyctophilus major tor</i> (central long-eared bat)	P3	Y	49.1	N	N/A	Possible – discussed in Section 3.2.2
<i>Zanda latirostris</i> (Carnaby's cockatoo)	EN	Y	19.0	N	N/A	Unlikely – discussed in Section 3.2.2
<i>Dasyurus geoffroii</i> (chuditch)	VU	Potential	36.5	N	N/A	Unlikely – discussed in Section 3.2.2
<i>Calidris alba</i>	MI	N	10.0	N	N/A	Unlikely

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Discussed in CPS 6630/1? [Y/N]	Has assessment changed since CPS 6630/1? [Y/N/NA]	Likelihood of occurrence
(sanderling)						
<i>Calidris acuminata</i> (sharp-tailed sandpiper)	MI	N	13.9	N	N/A	Unlikely
<i>Tringa glareola</i> (wood sandpiper)	MI	N	14.5	Y	N	Unlikely
<i>Charadrius cucullatus</i> (hooded plover)	P4	N	17.3	N	N/A	Unlikely
<i>Amytornis textilis textilis</i> (western grasswren)	P4	N	22.5	N	N/A	Unlikely
<i>Plegadis falcinellus</i> (glossy ibis)	MI	N	22.8	N	N/A	Unlikely
<i>Calidris ferruginea</i> (curlew sandpiper)	CR & MI	N	23.5	N	N/A	Unlikely
<i>Tringa nebularia</i> (common greenshank)	MI	N	23.5	N	N/A	Unlikely
<i>Tringa brevipes</i> (grey-tailed tattler)	P4 & MI	N	24.1	N	N/A	Unlikely
<i>Calidris ruficollis</i> (red-necked stint)	MI	N	25.5	N	N/A	Unlikely
<i>Actitis hypoleucos</i> (common sandpiper)	MI	N	47.2	N	N/A	Unlikely
<i>Branchinella denticulata</i> (a fairy shrimp)	P3	N	32.3	N	N/A	Highly unlikely

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

### Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared may contain conservation significant flora and fauna.</p>	May be at variance (as per CPS 6630/2)	Yes  <i>Refer to Section 3.2.1 and Section 3.2.2, above.</i>
<p><u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared may contain critical habitat for conservation significant fauna.</p>	May be at variance (changed from CPS 6630/2)	Yes  <i>Refer to Section 3.2.2, above.</i>
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u></p> <p>The local area (50 kilometre radius of the application area) contains records of one flora species (<i>Gastrolobium graniticum</i>) listed under the BC Act (GIS Database). Suitable habitat for this species does not occur within the application area (Mattiske, 2012; 2014; Western Australian Herbarium, 1998-). As this is the only threatened flora species in the local area, and it is unlikely to occur within the application area, the proposed clearing is unlikely to be at variance to Principle (c).</p>	Not likely to be at variance (as per CPS 6630/2)	No



Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (d):</u> “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.”</p> <p><u>Assessment:</u></p> <p>Surveys of the application area have not detected any Threatened Ecological Communities (TECs) (Mattiske, 2012; 2014). Additionally, there are no TECs known to occur within the Coolgardie bioregion (DBCA, 2023). Therefore, TECs are unlikely to occur within the application area.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 6630/2)</p>	No
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> “Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</p> <p><u>Assessment:</u></p> <p>The application area falls within the Coolgardie Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 98% of the pre-European vegetation still exists in the IBRA Coolgardie Bioregion (Government of Western Australia, 2019).</p> <p>The application area is broadly mapped as the following Beard vegetation associations:</p> <ul style="list-style-type: none"> <li>• 468: Medium woodland; salmon gum &amp; goldfields blackbutt; and</li> <li>• 1241: Succulent steppe; bluebush (GIS Database).</li> </ul> <p>Approximately 99% of the pre-European extent of these vegetation associations remain uncleared at both the state and bioregional level (Government of Western Australia, 2019).</p> <p>The extent of native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	<p>Not at variance</p> <p>(as per CPS 6630/2)</p>	No
<p><u>Principle (h):</u> “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.”</p> <p><u>Assessment:</u></p> <p>Given vegetation is continuous surrounding the nearest conservation area (the Lakeside Timber Reserve), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas (GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 6630/2)</p>	No
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> “Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</p> <p><u>Assessment:</u></p> <p>According to available databases, the application area intersects multiple minor non-perennial watercourses (GIS Database).</p> <p>Mattiske (2012; 2014) also noted several minor creek channels within the project area but described them as only flowing after sporadic rainfall events, particularly cyclonic rainfall. These channels remain dry most of the year (Mattiske, 2014). One vegetation type was identified within the Boorara and borefield project areas as growing in association with drainage lines, however this vegetation type did not occur within the application area (Mattiske, 2012; 2014).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 6630/2)</p>	No
<p><u>Principle (g):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</p> <p><u>Assessment:</u></p> <p>As the vegetation within the application area is in excellent to pristine condition, any clearing is likely increase to erosion risk, particularly during rainfall events. Potential impacts from erosion as a result of the proposed clearing may be minimised by maintaining the existing staged clearing condition.</p> <p><u>Conditions:</u></p> <p>To address the above impact, the following management measures will be required as a condition on the clearing permit:</p>	<p>May be at variance</p> <p>(as per CPS 6630/2)</p>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<ul style="list-style-type: none"> <li>a staged clearing condition to minimise risk of erosion.</li> </ul>		
<p><u>Principle (i):</u> "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."</p> <p><u>Assessment:</u></p> <p>Given the distance (50 kilometres) from the nearest public drinking water source (PDWSA) the proposed clearing is unlikely to deteriorate the water quality of PDWSAs (GIS Database).</p> <p>The scale of the proposed clearing (70 hectares within a boundary of 402 hectares) is unlikely to result in significant salinisation.</p> <p>The proposed clearing is likely to increase erosion risk. Erosion may result in the siltation of watercourses, leading to a deterioration of surface water quality. Therefore, the proposed clearing may lead to the deterioration of water quality in local watercourses if water erosion occurs.</p> <p><u>Condition</u></p> <p>To address the above impact, the following management measure will be required as a condition on the clearing permit:</p> <ul style="list-style-type: none"> <li>a staged clearing condition to minimise risk of erosion.</li> </ul>	<p>May be at variance</p> <p>(changed from CPS 6630/2)</p>	No
<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, Bulong, is 256.5 millimetres (BoM, 2025). Average annual evaporation is between 2,400 and 2,800 millimetres per year, exceeding rainfall (BoM, 2006). The Kalgoorlie area receives evenly distributed but unreliable annual rainfall, with low pressure systems and cold fronts from the southwest generating winter rainfall, and intense thunderstorms or ex-tropical cyclones generating summer rainfall (Milewski, 1992). Flooding may occur following intense rainfall events, however the incidence or intensity of flooding is not likely to be significantly influenced by the proposed vegetation clearing.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 6630/2)</p>	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.

**E.1. GIS datasets**

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

- CAWSA Part 2A Clearing Control Catchments (DWER-004)
- 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)
- EPA Referred Schemes Pending (DWER-121)
- EPA Referred Significant Proposals (DWER-120)
- EPA Referred Significant Proposals Pending (DWER-103)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- 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)
- 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)

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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 (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.