



# Clearing Permit Decision Report

## 1. Application details and outcomes

### 1.1. Permit application details

<b>Permit number:</b>	7635/3
<b>Permit type:</b>	Purpose Permit
<b>Applicant name:</b>	MacPhersons Reward Pty Ltd
<b>Application received:</b>	20 May 2022
<b>Application area:</b>	150 hectares
<b>Purpose of clearing:</b>	Mineral Production
<b>Method of clearing:</b>	Mechanical Removal
<b>Tenure:</b>	Mining Lease 15/40 Mining Lease 15/128 Mining Lease 15/147 Mining Lease 15/148 Mining Lease 15/1808
<b>Location (LGA area/s):</b>	Shire of Coolgardie
<b>Colloquial name:</b>	Coolgardie Gold Project

### 1.2. Description of clearing activities

Clearing permit CPS 7635/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 10 August 2017 and was valid from 2 September 2017 to 2 September 2022. The permit authorised the clearing of up to 105.1 hectares of native vegetation within a boundary of approximately 200 hectares, for the purpose of mineral production.

CPS 7635/2 was granted on 29 February 2019, amending the permit to increase the amount of approved clearing by 1.97 hectares, and increasing the permit boundary by 25 hectares.

On 20 May 2022, the Permit Holder applied to amend CPS 7635/2 to extend the permit duration to 2 September 2027, and to increase the area of clearing authorised by 42.93 hectares to a total of 150 hectares, within a permit boundary increased by approximately 207 hectares for a total boundary of approximately 432 hectares. The proposed increase in area is to allow for increased mining development of the Coolgardie Gold Project. As of 30 June 2021, only 3.96 hectares have been cleared for exploration drilling activities.

### 1.3. Decision on application and key considerations

<b>Decision:</b>	Grant
<b>Decision date:</b>	21 July 2022
<b>Decision area:</b>	150 hectares of native vegetation

### 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51KA(1) of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Mines, Industry Regulation and Safety (DMIRS) on 20 May 2022. DMIRS advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix E), the results of a flora and vegetation survey (Appendix D), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3). The Delegated Officer also took into consideration the previous assessments for CPS 7635/1 and CPS 7635/2.

The assessment identified that the proposed clearing may result in:

CPS 7635/3

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values; and
- potential impact to riparian vegetation and surface water flow.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see 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:

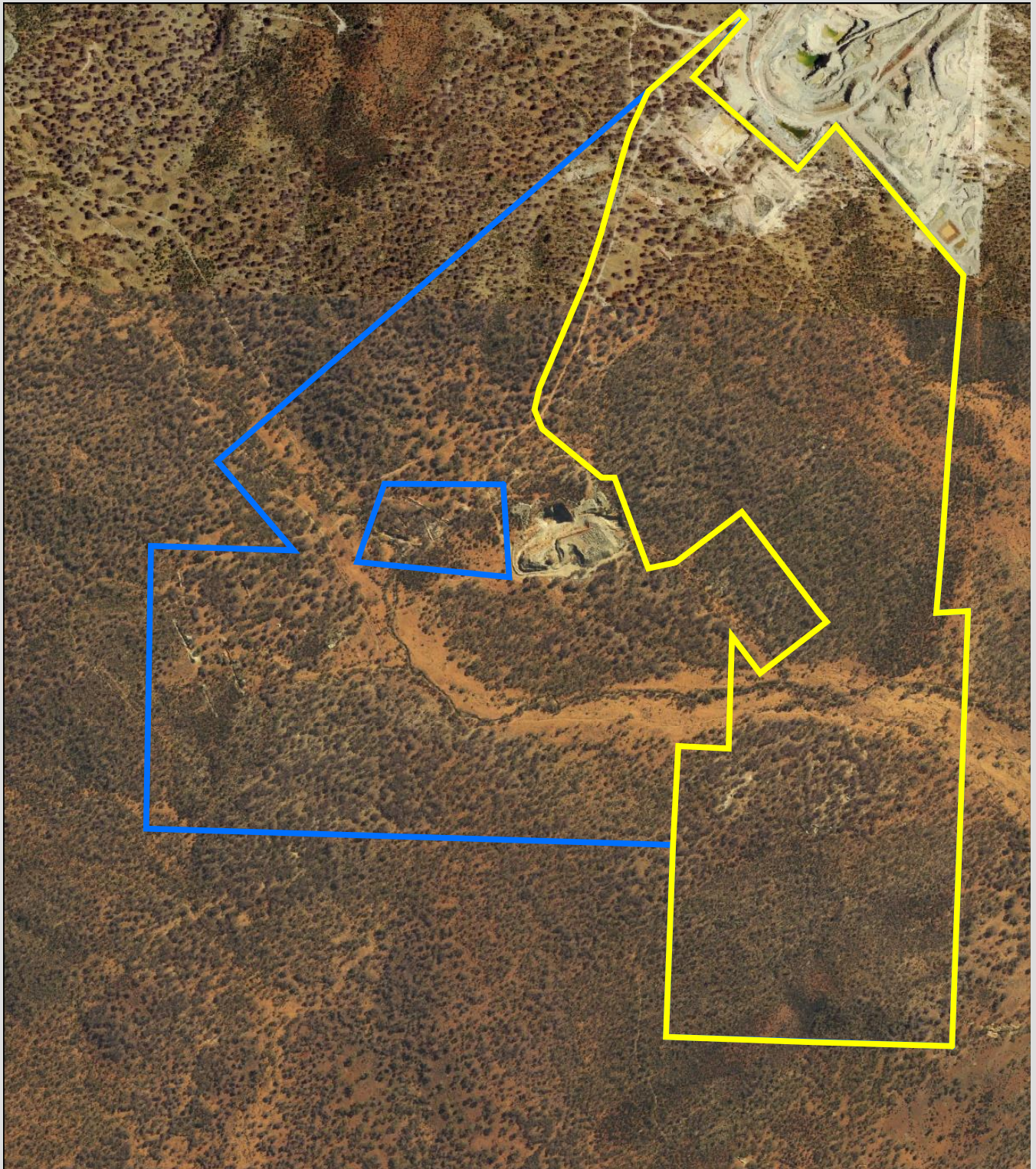
- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- avoid impacts to riparian vegetation and maintain surface water flows; and
- conduct targeted pre-clearing malleefowl surveys if clearing during the breeding season and avoid active malleefowl mounds

The assessment has not changed since the assessment for CPS 7635/2, except in the case of principle (f). The vegetation associated with the ephemeral drainage line that intersects the amendment area is considered under principle (f) in this assessment. The Delegated Officer determined that the proposed additional clearing of 42.93 hectares is not likely to lead to an unacceptable risk to environmental values.

## **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 previous permit area (CPS 7635/2) and the blue area indicates the additional areas included as part of this application.**

## **2. Legislative context**

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

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

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

Other legislation of relevance for this assessment includes:



- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM 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, 2016)

### 3. Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

The applicant has provided the following avoidance and mitigation measures to support this amendment application:

- Induction and training on presence of potential significant flora/ fauna and associated habitat to staff and contractors.
- Avoidance of clearing mature trees and vegetation associated with the minor ephemeral drainage line where possible.
- Preferential use of existing cleared areas where possible to minimise clearing extent.
- Targeted pre-clearing malleefowl surveys within suitable habitat to be conducted during malleefowl breeding period (September-January) to confirm no active malleefowl mounds present within the assessment area. Should any active malleefowl mounds be identified, a 200m buffer exclusion zone surrounding any active malleefowl mounds will be applied.

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

Out of the authorised 107.07 hectares, as of 30 June 2021, only 3.96 hectares have been cleared for exploration activities under permit CPS 7635/2 (Beacon Minerals Limited, 2022). A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 7635/2, except for principle (f).

The additional proposed clearing area contains an ephemeral drainage line which supports riparian vegetation. However, given the extent of the additional clearing and the avoidance and mitigation measures proposed and conditioned on the permit, the clearing is not considered likely to result in significant impacts to this community.

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

The clearing permit amendment application was advertised on 17 June 2022 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are two native title claims (WC2017/007 and WC2017/001) over the area under application (DPLH, 2022). These claims have been registered with the National Native Title Tribunal on behalf of the claimant groups. 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, 2022). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

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

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

**End**

## 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. It is surrounded by mining and exploration projects to the east, north, and northwest. To the west and south it is surrounded by native vegetation. The application area has been previously disturbed by historical and current mining activities, historical pastoral activities, vegetation clearing, (including timber harvesting and grazing) and disturbance by rabbits and goats (JBBC, 2016).
Ecological linkage	According to available databases, the proposed clearing area does not form part of any known ecological linkages.
Conservation areas	The closest conservation area is the Kangaroo Hills Timber Reserve, located approximately 2.3 kilometres west of the application area (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation association:</p> <p>9: Medium woodland; coral gum (<i>Eucalyptus torquata</i>) &amp; goldfields blackbutt (<i>E. le soufii</i>) (GIS Database).</p> <p>A flora and vegetation survey was conducted over the application area by Jenny Borger Botanical Consulting during October 2016, and by VP Environmental Pty Ltd during May 2022. The following vegetation communities were recorded within the application area (JBBC, 2016; VP Environmental, 2022):</p> <ol style="list-style-type: none"> <li><b>1. Lower slopes, plains</b> - <i>Eucalyptus clelandii</i> low woodland with occasional <i>E. griffithsii</i> over <i>Eremophila interstans</i>, <i>E. parviflora</i>, <i>E. glabra</i>, <i>E. scoparia</i>, <i>Olearia muelleri</i>, <i>Senna artemisioides</i>, <i>Scaevola spinescens</i>; small areas of <i>Eremophila interstans</i>, <i>E. oppositifolia</i> tall open shrubland.</li> <li><b>2. Lower slopes</b> - <i>Eucalyptus griffithsii</i> open forest to low woodland over <i>Eremophila</i> spp. tall sparse shrubland over <i>Atriplex</i> spp., <i>Olearia muelleri</i>, <i>Ptilotus obovatus</i> low open shrubland.</li> <li><b>3. Lower to mid-slopes</b> - <i>Eucalyptus celastroides</i> subsp. <i>celastroides</i> low woodland to open woodland over a low mixed shrubland.</li> <li><b>4. Lower slopes</b> - <i>Eucalyptus torquata</i> low open forest to low woodland over <i>Eremophila</i> spp., <i>Dodonaea stenozyga</i>, <i>Olearia muelleri</i>, <i>Acacia hemiteles</i>, <i>A. erinacea</i> sparse shrubland.</li> <li><b>5. Plains, low rises</b> - <i>Eucalyptus longissima</i> low open forest to tall open mallee woodland over <i>Acacia hemiteles</i>, <i>Eremophila scoparia</i>, <i>Atriplex nummularia</i>, <i>Senna artemisioides</i>, <i>Cratystylis conocephala</i>, <i>Acacia calcarata</i> open shrubland.</li> <li><b>6. Broad drainage lines</b> - <i>Eucalyptus griffithsii</i> isolated trees over <i>Atriplex nummularia</i>, <i>A. vesicaria</i>, <i>Eremophila alternifolia</i>, <i>Lycium australe</i> open to sparse shrubland.</li> <li><b>7. Plain with low stony rises</b> - <i>Eucalyptus griffithsii</i>, and occ. <i>E. celastroides</i> open mallee woodland to isolated mallee over <i>Acacia burkittii</i>, <i>Bertya dimerostigma</i>, <i>Eremophila decipiens</i>, <i>E. oppositifolia</i>, <i>E. glabra</i>, <i>Dodonaea lobulata</i> tall shrubland.</li> <li><b>8. Plain</b> - <i>Eucalyptus salmonophloia</i> open forest to open woodland.</li> <li><b>9. Lower &amp; midslopes</b> - <i>Eucalyptus campaspe</i>, <i>E. griffithsii</i> low open forest over <i>Eremophila interstans</i> isolated tall shrubs over <i>Atriplex</i> spp. and <i>Eremophila</i> spp.</li> <li><b>10. Mid to upper slopes</b> - <i>Eucalyptus campaspe</i>, <i>E. clelandii</i>, <i>E. celastroides</i> low woodland to open woodland over <i>Eremophila</i> spp., <i>Exocarpos aphyllus</i>, <i>Senna artemisioides</i>, <i>Santalum acuminatum</i> tall open shrubland.</li> <li><b>11. Ridges of rocky hills</b> - <i>Eucalyptus griffithsii</i> low open woodland to isolated trees over <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>, <i>E. decipiens</i>, <i>E. interstans</i>, <i>Exocarpos aphyllus</i> tall sparse shrubland to open shrubland over <i>Acacia erinacea</i>, <i>Dodonaea lobulata</i>, <i>Acacia tetragonophylla</i> open shrubland.</li> <li><b>12. Valley; midslope</b> - <i>Casuarina pauper</i> isolated low trees over mixed shrubland; semi mature regrowth.</li> </ol>

Characteristic	Details
	<p><b>13. Upper slopes rocky hills</b> - <i>Eucalyptus torquata</i>, <i>E. griffithsii</i> low open forest over <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>, <i>Santalum spicatum</i> tall open shrubland over <i>Dodonaea</i> and <i>Eremophila</i> spp., <i>Grevillea acuaria</i> open shrubland; areas of <i>Eremophila</i> tall shrubland.</p> <p><b>14. Lower slopes &amp; plain</b> - <i>Eucalyptus griffithsii</i>, <i>E. celastroides</i> and/or <i>E. torquata</i> mallee woodlands over <i>Allocasuarina helmsii</i>, <i>Eremophila interstans</i>, <i>Acacia densiflora</i>, <i>Santalum spicatum</i> isolated tall shrubs over <i>Allocasuarina helmsii</i>, <i>Acacia hemiteles</i>, <i>Westringia rigida</i> low shrubs over <i>Triodia scariosa</i> open tussock grassland.</p>
Vegetation condition	<p>The vegetation survey (VP Environmental, 2022) and aerial imagery indicate the vegetation within the proposed clearing area is in Excellent to Completely Degraded (Keighery, 1994) condition.</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. The full survey descriptions and mapping are available in Appendix D.</p>
Climate and landform	The climate of the region is semi-arid to arid with a low average annual rainfall of 263.5 millimetres (BoM, 2022).
Soil description and land degradation risk	The soil within the application area is mapped as soil unit BB5 (GIS Database). This soil unit is described as rocky ranges and hills of greenstones, basic igneous rocks: chief soils seem to be shallow calcareous loamy soils and similar soils with shallow brown and grey-brown calcareous earths below which weathered rock occurs at shallow depths (Northcote et al., 1960-68). Given the soil profile where the amendment area is located, the risk of land degradation is low.
Waterbodies	The desktop assessment and aerial imagery indicated that one minor, ephemeral drainage line transects the area proposed to be cleared (GIS Database, VP Environmental, 2022).
Hydrogeography	The application area falls within the Goldfields Groundwater Area legislated by the <i>R/VI Act 1914</i> (GIS Database). The mapped groundwater salinity is 14,000-35,000 milligrams per litre total dissolved solids which is described as highly saline (GIS Database).
Flora	There were no Threatened or Priority flora found within the application area (GIS Database; JBBC, 2016; VP Environmental, 2022).
Ecological communities	There are no known Threatened Ecological Communities or Priority Ecological Communities within the application area (GIS Database; VP Environmental, 2022). The closest record of a TEC or PEC is located approximately 91 kilometres east of the application area.
Fauna	No Threatened or Priority fauna were found inside the application area (GIS Database; JBBC, 2016; VP Environmental, 2022).

## Appendix B. 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>There were a total of 78 flora and 28 fauna species recorded within the application area (JBBC, 2016). The vegetation within the application area is not considered to be of high biological diversity and is well represented in the local area (VP Environmental, 2022). No Priority Flora or PECs have been recorded within the amendment area (GIS Database; VP Environmental, 2022). There are various records of Priority flora around the application area. The closest record is a Priority 3 flora species located 3.5 kilometres west of the amendment area (GIS Database). Three introduced (weed) species were recorded within the application area (JBBC, 2016). These species are not listed as Declared Pests or as Weeds of National Significance (WONS) (VP Environmental, 2022). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7635/2</p>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.		
<p><u>Principle (b):</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 significant habitat for fauna.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared contains five broad fauna habitats. Vegetation types 6, 8, 10, 11, and 12 (refer to section A.1) are related to the fauna habitat types found inside the application area (VP Environmental, 2022). These habitats are typical of those in the wider region and are not restricted to the application area (VP Environmental, 2022).</p> <p>Additionally, vegetation types 11, 12, and 14 (refer to section A.1) are considered potential vegetation to support habitat for Short Range Endemic (SRE) fauna (JBBC, 2016). However, the landforms present within the amendment area are unlikely to provide habitat for SRE fauna and varying levels of historic disturbances may reduce the presence of suitable habitat for SRE fauna (JBBC, 2016). Therefore, there is a low likelihood of habitat necessary for the maintenance of the SRE fauna occurring within the amendment area (JBBC, 2016).</p> <p>No conservation significant fauna were observed within the amendment area. The area used to support malleefowl, and vegetation types 7, 10, and 13 (refer to section A.1) are considered to be potential malleefowl habitat. However, no recent activity (faeces, feathers, active mounds, or tracks) were found during a targeted survey conducted by JBBC in October 2016. In this survey, three inactive mounds were found and identified as unlikely to have had any activity for at least 20 years. A fauna management condition can be placed on the clearing permit to prevent the loss of any potential malleefowl breeding habitat.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7635/2</p>	<p>No</p>
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain any known Threatened flora (GIS Database; JBBC, 2016; VP Environmental, 2022). The closest known record of a Threatened flora species is approximately 28.8 kilometres west of the amendment area (GIS Database).</p>	<p>Not likely to be at variance</p> <p>as per CPS 7635/2</p>	<p>No</p>
<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>The area proposed to be cleared is not within or near any known Threatened Ecological Communities (TECs) nor is it necessary for the maintenance of a TEC (GIS Database; VP Environmental, 2022).</p>	<p>Not likely to be at variance</p> <p>as per CPS 7635/2</p>	<p>No</p>
<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 application area is located within the Eastern Goldfields subregion of the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) Bioregion (GIS Database). The extent of Coolgardie IBRA Bioregion still maintains approximately 98 per cent of the Pre-European vegetation (Government of Western Australia, 2019). Beard vegetation association 9 still maintains approximately 98 per cent of the Pre-European vegetation at both</p>	<p>Not at variance</p> <p>as per CPS 7635/2</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
the Bioregion and State level (Government of Western Australia 2019). The vegetation proposed to be cleared is not considered to be part of a significant remnant of native vegetation (GIS Database).		
<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>The amendment area is not within any known conservation areas. The nearest mapped conservation area is a timber reserve managed by the Department of Biodiversity, Conservation and Attractions (DBCA) (GIS Database). Given the distance to this conservation area, the proposed clearing is not likely to have any impacts on the environmental values of this or any other conservation area.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7635/2</p>	<p>No</p>
<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 is one minor ephemeral drainage line that intersects the amendment area. Given that vegetation type 6 (refer to section A.1) grows in association with a watercourse, clearing of the amendment area could impact riparian vegetation and surface flow. However, this impact can be managed by a vegetation management condition, requiring avoidance of riparian vegetation and maintenance of surface water flows.</p>	<p>May be at variance</p> <p>changed from CPS 7635/2</p>	<p>No</p>
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are not highly susceptible to erosion. The amendment area has been affected by historic mining and pastoral activities resulting in erosion (JBBC, 2016; VP Environmental, 2022). Noting the location of the application area, and the previous disturbance to the land, the proposed clearing is not likely to cause appreciable land degradation.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7635/2</p>	<p>No</p>
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p> <p>Given no permanent watercourses, wetlands or Public Drinking Water Sources Areas are recorded within the amendment area (GIS Database), the proposed clearing is unlikely to impact surface or ground water quality. The drainage line within the amendment area is ephemeral and unlikely to hold water for extended periods of time (JBBC, 2016).</p>	<p>Not likely to be at variance</p> <p>as per CPS 7635/2</p>	<p>No</p>
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>There are no permanent water courses or wetlands recorded within the amendment area (GIS Database), with low average annual rainfall (263.5 millimetres) and a high average annual evaporation rate (2,400 millimetres), there is likely to be little surface flow during normal seasonal rains (BoM, 2022). Whilst large rainfall events may result in flooding of the area, the proposed clearing is not likely to lead to an increase in incidence or intensity of flooding.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7635/2</p>	<p>No</p>



## 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

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

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

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

## Appendix D. Biological survey information excerpts

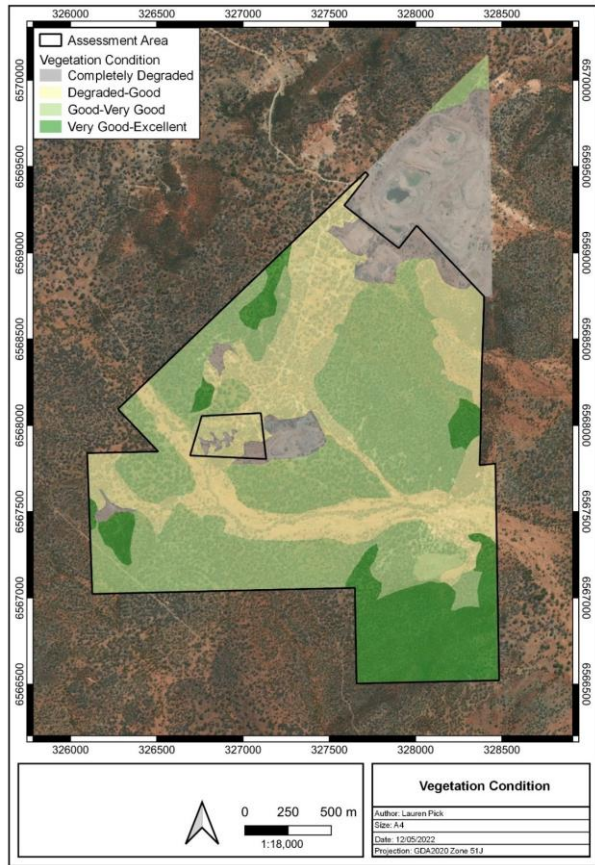


Table 3-3: Vegetation condition within the assessment area

Vegetation Condition Rating (EPA, 2016c)	Extent within assessment area
Very Good-Excellent	65 ha (15%)
Good-Very Good	207 ha (48%)
Degraded-Good	135 ha (31%)
Completely Degraded	25 ha (6%)
<b>Total</b>	<b>432 ha (100%)</b>

## 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)):

- Aboriginal Heritage Places (DPLH-001)
- Clearing Regulations – Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Pre-European Vegetation Statistics
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

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

### E.2. References

Beacon Minerals Limited (2022). CPS7635/2 Clearing Permit Compliance 2017-2021. Prepared for the Department of Mines, Industry Regulation and Safety, by Beacon Minerals Limited, May 2022.

- BoM (2022) Bureau of Meteorology Website – Climate Data Online, Leinster Aero. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 7 June 2022).
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## 4. Glossary

### Acronyms:

<b>BC Act</b>	<i>Biodiversity Conservation Act 2016, Western Australia</i>
<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>DAWE</b>	Department of Agriculture, Water and the Environment, Australian Government
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions, Western Australia
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DMIRS)
<b>DoEE</b>	Department of the Environment and Energy (now DAWE)
<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, Western Australia</i>
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)</i>
<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, Western Australia</i>
<b>TEC</b>	Threatened Ecological Community

### Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia):-

**T** **Threatened species:**

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

**Threatened fauna** is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

**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. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

**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. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

**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. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

**Extinct Species:**

**EX Extinct species**

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

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

**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. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

**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).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and 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.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

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

Fauna of special conservation need being species 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).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**OS Other specially protected species**

Fauna 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).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**P Priority species:**

Possibly threatened species that do not meet survey criteria, 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 priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

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

Assessment of Priority codes 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**

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, e.g. 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 and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

**P2 Priority Two - Poorly-known species**

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, e.g. 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 and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

**P3 Priority Three - Poorly-known species**

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. Such species are in need of 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 Conservation Dependent.



(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

**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.