

## 1. Application details and outcomes

### 1.1. Permit application details

<b>Permit number:</b>	9513/1
<b>Permit type:</b>	Purpose Permit
<b>Applicant name:</b>	Focus Operations Pty Ltd
<b>Application received:</b>	7 December 2021
<b>Application area:</b>	60 hectares
<b>Purpose of clearing:</b>	Mineral production and Associated Activities
<b>Method of clearing:</b>	Mechanical Removal
<b>Tenure:</b>	Mining Lease 15/154, 15/645, 15/1432
<b>Location (LGA area/s):</b>	Shire of Coolgardie
<b>Colloquial name:</b>	Greenfields Expansion Project

### 1.2. Description of clearing activities

Focus Operations Pty Ltd proposes to clear up to 60 hectares of native vegetation within a boundary of approximately 274.879 hectares, for the purpose of mineral production and associated activities. The project is located approximately 1.6 kilometres north-east of Coolgardie, within the Shire of Coolgardie.

The application is to allow for open pit mining and associated activities.

### 1.3. Decision on application and key considerations

<b>Decision:</b>	Grant
<b>Decision date:</b>	17 June 2022
<b>Decision area:</b>	60 hectares of native vegetation

### 1.4. Reasons for decision

This permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Mines, Industry Regulation and Safety (DMIRS) on 7 December 2021. 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 B), relevant datasets (Appendix E), supporting information provided by the applicant (Appendix A) including the results of a flora and vegetation survey, the clearing principles set out in Schedule 5 of the EP Act (Appendix A), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values; and
- impacts to conservation significant flora.

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 is unlikely to lead to have adverse impacts on the conservation of significant flora and fauna and the impacts of 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; and

- no clearing of native vegetation within 10 m of known locations of *Austrostipa blackii* (P3).

### 1.5. Site map

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

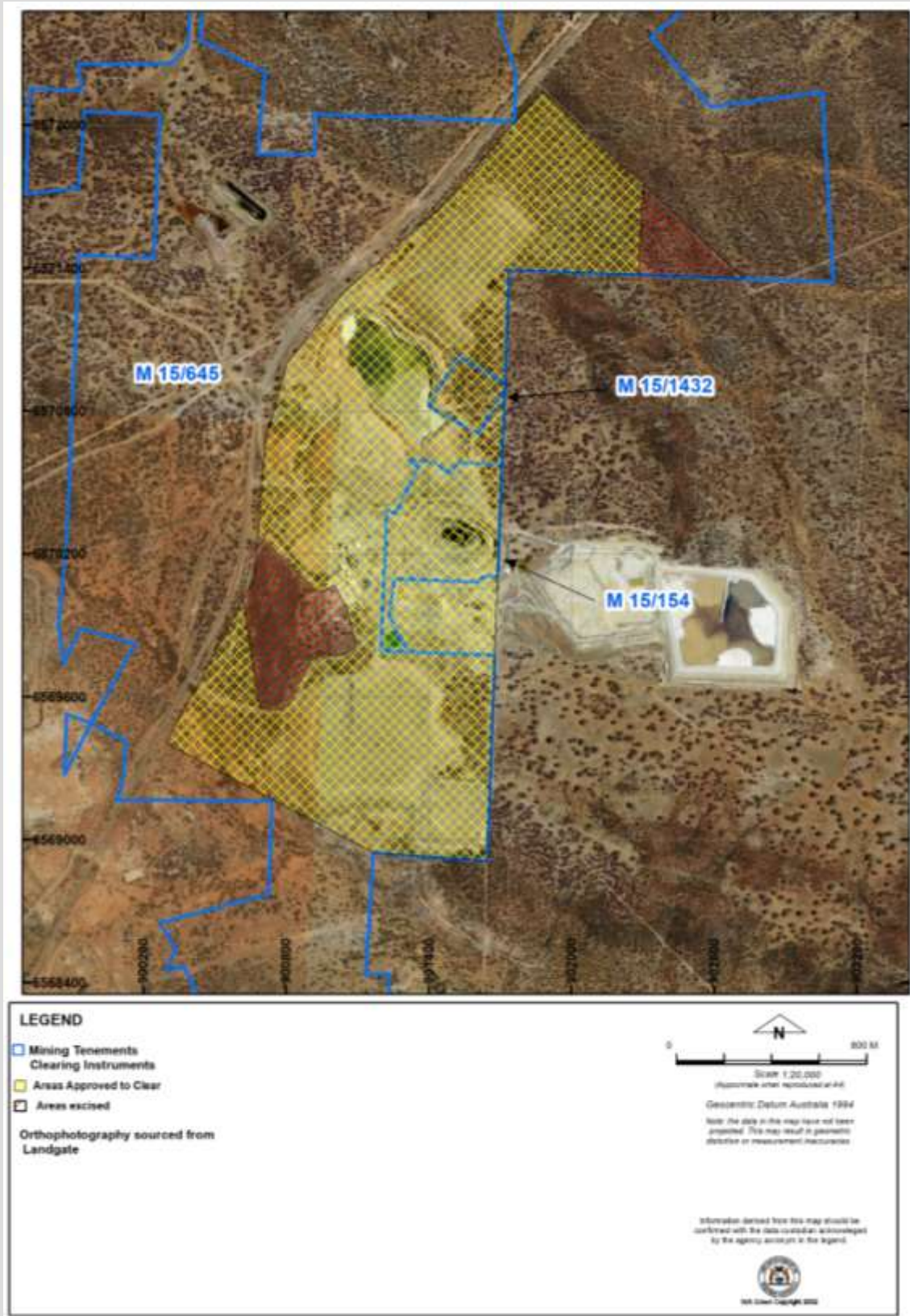


Figure 1. Map of the application area. The yellow area indicates the area within which conditional authorised clearing can occur under the granted clearing permit.

## 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 2013)
- *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 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. During the course of the assessment, and following discussions with DMIRS, the applicant reduced the permit boundary in order to exclude areas where potential significant flora may occur and areas not subject to adequate biological surveys. Figure 1 shows the locations in red which were excised from the permit application boundary.

### 3.2. Assessment of impacts on environmental values

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

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

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

##### Assessment

A number of flora and vegetation surveys have been undertaken in the vicinity of the Greenfields Project area, some of which have included parts of the application area and surrounding areas. These surveys include:

- 1) Terratree (2021a) – Targeted flora and vegetation survey – Coolgardie Gold Project (survey conducted in November 2020);
- 2) Terratree (2021b) – Targeted flora search for *Acacia websteri* (Priority 1) (survey conducted in April 2021);
- 3) 360 Environmental (2022) – Biological Surveys – CNX Three Mile Hill, Coolgardie Gold Project (survey conducted in October and November 2021)

A total of 95 species of flora from 28 families were recorded within the survey area (Terratree, 2021a). The most common families were Scrophulariaceae, Chenopodiaceae and Myrtaceae, followed by Fabaceae (mostly *Acacia* spp.) and Poaceae (360 Environmental, 2021; Terratree, 2021a).

No Threatened Flora were recorded within the application area (Terratree, 2021a; 360 Environmental, 2022; GIS Database). However, there is a database record of *Gastrolobium graniticum* (Threatened) approximately 3.8km from the application area (GIS Database). This species occurs in sand, sandy loam, granite, margins of rock outcrops, and along drainage lines (Western Australian Herbarium (1998-). 360 Environmental (2022) conducted a broader survey in the vicinity of the application area and identified several sites containing sandy loam and granites. Considering the application area is in close proximity to these sites and to the known records of *Gastrolobium graniticum*, the non-targeted or unsurveyed remnants of vegetation in the application area have the potential to be suitable habitats for this species.

A targeted survey for *Acacia websteri* (P1) recorded three individuals in the survey area (Terratree (2021b), however they are located outside the permit area (360 Environmental, 2021; Terratree, 2021b). *Acacia websteri* (P1) is likely to occur on Mallee Shrubland comprised by *Acacia* spp. and *Allocuarina* spp. communities (Terratree, 2021b). *Acacia* spp. community was found on the south-western section of the purpose permit boundary within a very good vegetation condition area. In this section, a remaining portion of the vegetation was not subject of a targeted survey for this species. Based on the known locations of *Acacia websteri* and its preferred habitat type, there is a possibility it may occur in some of the unsurveyed vegetation in the original application area (Western Australian Herbarium, 1998; GIS Database).

Given the circumstances above, the proponent reconfigured the proposal and excluded the unsurveyed areas that have the potential to be habitat for threatened or priority species (Figure 1). Therefore, the proposed clearing is unlikely to directly impact these species if present.

10 individuals of *Austrostipa blackii* (P3) were recorded in one quadrat within the proposed permit boundary (360 Environmental, 2022). However, the permit holder does not intend to clear in this locality (360 Environmental, 2022b). A condition limiting clearing within 10 metres of *Austrostipa blackii* on the permit will minimise potential impacts to this species.

Five introduced species were recorded in the survey area, including two Weeds of National Significance (WONS), *Opuntia stricta* and *Lycium ferocissimum* (360 Environmental, 2021; Terratree, 2021a). Five WONS have been identified within the local area, with an additional 30 introduced flora species (Terratree, 2021a). Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

No conservation significant fauna species were recorded in the survey area.

Four fauna habitats have been identified within the area and they are common and widespread in the local and regional area.

#### Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on habitat for Priority flora is not likely to be significant. There is potential for weeds being present within the application area and the proposed clearing has the potential to exacerbate the spread of weeds.

#### Conditions

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

- no clearing of native vegetation within 10 m of known locations of *Austrostipa blackii* (P3);
- take hygiene steps to minimise the risk of the introduction and spread of weeds.

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

There are two native title claims (WC2017/007, 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 group. 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. Additional information provided by applicant

Summary of comments	Consideration of comment
Targeted flora and vegetation survey	A targeted flora survey for conservation significant flora and vegetation survey was conducted by Terratree (2021a). The survey covered the majority of the application area. The targeted survey was used to inform assessment of potential impacts to conservation significant flora.
Targeted flora survey for <i>Acacia websteri</i> (addendum)	A targeted flora survey for <i>Acacia websteri</i> was conducted by Terratree (2021b). The survey covered the majority of the application area and was used to inform assessment of potential impacts to conservation significant flora.
Terrestrial fauna survey	A terrestrial survey was undertaken by Western Ecological (2021). The survey covered the majority of the application area. The fauna survey was used to inform assessment of clearing principle (b).
Biological surveys	360 Environmental (2022) undertook a flora and vegetation survey and basic vertebrate fauna and habitat survey for the Three Mile Mine Project in Coolgardie. These surveys covered part of the application area but they were majorly focused in a broader and adjacent areas of the proposed permit boundary. This survey was critical to identify a priority species <i>Austrostipa blackii</i> (P3) occurring in the application area that was not recorded in a previous survey. In this survey a priority flora species was recorded in the south-eastern portion of the application area.
Updated application area	The areas either not surveyed or not included for targeted significant species were excised from the application area. A revised application area was submitted excluding these areas.

## Appendix B. Site characteristics

### B.1. Site characteristics

Characteristic	Details
Local context	<p>The project is located approximately 1.6 kilometres north-east of Coolgardie, within the Shire of Coolgardie in the extensive land use zone. The predominant land use in the region is grazing of native pastures, conservation, mining activity, and urban development.</p> <p>The application area is an extension of an existing waste dump areas within the mine.</p>
Conservation areas and ecological linkage	The application area is located approximately 15 kilometres north of the Yallari Timber Reserve (GIS Database). The application area does not represent an ecological linkage to other areas of vegetation.
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 targeted flora and vegetation survey was conducted over the broader area and within the application area by Terratree during November, 2020 (360 Environmental, 2021). The following vegetation associations recorded were (Terratree, 2021):</p> <ul style="list-style-type: none"> <li>• Eucalypt Mallee Woodlands</li> <li>• Open Woodlands</li> <li>• Mallee Shrublands</li> <li>• Isolated Heathland</li> </ul>
Vegetation condition	<p>The vegetation survey (Terratree, 2021a) indicate the vegetation within the proposed clearing area is in very good, good to degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>

Characteristic	Details
	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul> <p>The majority of the proposed clearing area has been previously cleared (mine production), and the remaining vegetation is sparse on the north-eastern side and dense in the south-western section (GIS Database).</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix D.</p>
Climate and landform	The application area is mapped within elevations of 400-440 metres AHD (GIS Database). The climate of the region is semi-arid, and the annual rainfall average of approximately 269.6 millimetres (BoM, 2022).
Soil description and land degradation risk	The soils of the permit area are mapped as: Rocky ranges and hills of greenstones--basic igneous rocks: chief soils seem to be shallow calcareous loamy soils (Um5.11) and similar soils such as (Um5.41) and (Um1.43) in Sheet 10 areas, with shallow brown and grey-brown calcareous earths (Gc1.12) and (Gc1.22) below which weathered rock occurs at shallow depths. Associated soils are not described but may include alkaline red earths (Gn2.13) and narrow valleys with (Ug5.38) soils in Sheet 10 areas. Occurs on sheet(s): 5,10. A large part of the application area has been previously disturbed by mining and exploration activities.
Waterbodies and hydrogeography	There are no permanent waterbodies or watercourses within the application area, however, there are four minor non perennial watercourses present (GIS Database). Some ephemeral salt lakes are located approximately 6 km from the application area (GIS Database). The application area is not located within a Public Drinking Water Source Area (GIS Database).
Flora	There are no previous records of Threatened or Priority flora within the application area (GIS Database). Flora surveys undertaken by 360 Environmental in 2021 recorded the priority flora species <i>Austrostipa blackii</i> . There are records of 12 priority flora and one Threatened species within 10 kilometres of the application area (Terratree, 2021; GIS Database).
Ecological communities	There are no mapped Threatened or Priority Ecological Communities (TEC/PEC) within the application area or the 10km radius (GIS Database).
Fauna	No conservation significant fauna species have been recorded within the survey area (Western Ecological, 2021). Malleefowl ( <i>Leipoa ocellata</i> ), listed as vulnerable under the EPBC Act and the <i>Biodiversity Conservation Act (BC Act)</i> is the only conservation significant fauna species considered as possibly occurring in the survey area (Western Ecological, 2021).

## B.2. Flora analysis table

Priority Flora of recorded genera likelihood of occurrence assessment (Terratree, 2021a).

Collection	Potential Priority Species	Conservation Status	Habitat		Flowering time (WA Herbarium 2021)	Details from record within 20km of Survey Area (DBCA 2020e)			Likelihood Occurrence in Survey Area
			Soils and Landscape	Associated Vegetation		Distance and Direction	Soils and Landscape	Associated Vegetation	
	<i>Austrostipa blackii</i>	Priority 2	Heavy soils (Sharp and Simon 2002)	Not described	Sep to Nov	2.2km SW	West north-west facing gently inclined lower slope of basalt with red-brown deep sandy clay loam soils	Mid-dense mallee woodland of <i>Eucalyptus griffithii</i> over open shrubland of <i>Dodonaea lobulata</i> and <i>Eremophila glabra</i> subsp. <i>glabra</i> over sparse low shrubland of <i>Platotus obovatus</i> .	Likely
	<i>Austrostipa</i> sp. (CS84)	Priority 1	Not described	Not described	2 records in Sep and Oct (ALA 2021)	9.6km WSW	North north-east facing gently inclined mid-slope of basalt with red-brown shallow sandy soils.	Open tall shrubland of <i>Acacia</i> sp. <i>Norseman</i> over mid-dense shrubland of <i>Dodonaea lobulata</i> and <i>Eremophila aliffelii</i> subsp. <i>angustifolia</i> over sparse low shrubland of <i>Platotus obovatus</i> .	Unlikely
	<i>Austrostipa</i> sp. (Dowerin)	Priority 2	Not described	Not described	8 records in Oct. 1 in Nov (ALA 2021)	6.7km SE	South-east facing moderately inclined upper slope of basalt. Very slightly rocky basalt outcrop with red-brown shallow sandy clay loam soils.	Open tall shrubland of <i>Acacia</i> sp. <i>Norseman</i> over sparse shrubland of <i>Dodonaea lobulata</i> over open low shrubland of <i>Platotus obovatus</i> .	Unlikely
	<i>Eremophila</i> spp. (CL10, CS32)	Priority 4	Sand, clay or loam on undulating plains (WA Herbarium 2020; (Brown and Buirchell 2011 p51).	<i>Eucalyptus salubris</i> , <i>E. eremophila</i> and <i>Eremophila decipiens</i> (Brown and Buirchell 2011 p51).	Oct to Dec (Brown and Buirchell 2011 p. 51)	5.6km N	No information provided.	No information provided.	Unlikely

	<i>Eremophila veronica</i>	Priority 3	Stony clay, clay loam, Lateritic breakaways (WA Herbarium 2020) Rocky-brown clays soil (Brown and Buirchell 2011 p.279)	Found in low <i>Eucalyptus salubris</i> , <i>E. griffithii</i> , <i>E. camospe</i> , woodland with <i>Atriplex bulbaryana</i> , <i>Santalum acuminatum</i> and <i>Eremophila lanantha</i> (Brown and Buirchell 2011 p.279).	Apr to May	530m W and 7.7km SW	Partly disturbed area.	Woodland, <i>Eucalyptus salubris</i> , <i>Acacia burkittii</i> , <i>Cyindropuntia tunicata</i> , And Low Woodland of <i>Eucalyptus salubris</i> with <i>Atriplex bulbaryana</i> , <i>Santalum acuminatum</i> .	Very Likely
	<i>Phebalium appressum</i>	Priority 1	Yellow sandplain (WA Herbarium 2021)		Jul	Approx. 14 and 20km NW	Mid slope between mallee woodland and sandplain heath, Brown sandy loam, And Yellow Sand Plain	Open tree mallee over low scrub ( <i>Acacia burkittii</i> , <i>Melaleuca hamata</i> ) over dwarf scrub ( <i>Baeckea</i> sp.) over <i>Triodia</i> .	Unlikely
	<i>Phebalium clavatum</i>	Priority 3	Sandplains (WA Herbarium 2021)		Aug to Sep	10.5km SSW	No information provided	No information provided	Unlikely

\**Austrostipa blackii* is currently classified as Priority 3 (Western Australian Herbarium, 1998-).

## B.3. Fauna analysis table

Fauna analysis of the likelihood occurrence of conservation significant records within 60 kilometres of the survey area (Western Ecological, 2021).

Table 2: Conservation significant fauna potentially occurring in the survey area

CR = Critically Endangered under the EBPC Act, EN = Listed as Endangered under the EBPC Act, VU = Listed as Vulnerable under the EBPC Act, MI = Listed as Migratory under the EBPC Act, CD = Conservation Dependent under the EBPC Act, OS = Other specially protected species under the EBPC Act, IA = Migratory birds protected under an International Agreement. IUCN Threat categories (BC Act). P = Listed as Priority by the DBCA.

Common name	Species name	Conservation Status (EPBC Act)	Conservation Status (WA BC Act)	Likelihood
<b>Birds</b>				
Malleefowl	<i>Leipoa ocellata</i>	Vu	Vu	Possibly
Common Greenshank	<i>Tringa nebularia</i>	Mi	Mi	Unlikely
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	Mi	Mi	Unlikely
Carnaby's Black Cockatoo	<i>Calyptorhynchus latirostris</i>	En	En	Unlikely

T: threatened, CR: critically endangered, EN: endangered, MI: Migratory, VU: vulnerable, 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> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u></p> <p>A vegetation and targeted flora survey did not identify any Threatened flora within the application area, however, 10 individuals of <i>Austrostipa blackii</i> (P3) were recorded. In addition, three individuals of <i>Acacia websteri</i> (P1) were identified during a previous targeted survey located approximately 1.5 km from the proposed clearing area.</p> <p>There are no known Threatened or Priority Ecological Communities within the permit area (360 Environmental, 2021; Terratree, 2021a; GIS Database).</p> <p>No conservation significant fauna have been recorded within the application area (Western Ecological, 2021; GIS Database).</p>	Not likely to be at variance	Yes Refer to Section 3.2.1, above.
<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>A fauna survey was undertaken in November 2020 and a total of four fauna habitats were identified within the broader survey area:</p> <ul style="list-style-type: none"> <li>• Mallee Eucalyptus Woodland</li> <li>• Salmon Gum Woodland</li> <li>• Drainage Line</li> <li>• Acacia Shrubland.</li> </ul> <p>The four fauna habitats identified within the area are common and widespread in the local and regional area and are unlikely to represent significant habitat for any fauna species.</p> <p>A likelihood assessment of the presence of significant fauna identified only Malleefowl as possibly present within the area; however no mounds or tracks were recorded in the survey area (Western Ecological, 2021).</p> <p>A large part of the survey area, including the majority of the development envelope, is considered unsuitable for Malleefowl, as it consists of disturbed, degraded and cleared areas from previous and current mining activities (Western Ecological, 2021). These areas provide no shelter or vegetation for Malleefowl to build mounds (Western Ecological, 2021).</p> <p>The majority of potential habitats for Malleefowl identified in the survey area - Mallee Eucalyptus Woodland and Salmon Gum Woodland – are considered to be too sparse and generally lack mid-storey vegetation making it unsuitable for Malleefowl mound construction or shelter, and Malleefowl are unlikely to build mounds in areas of drainage due to the possibility of flooding (Western Ecological, 2021).</p> <p>The survey also identified some areas (approximately 134 ha) of Eucalyptus Woodland and Acacia Shrubland, that are dense enough to be suitable for Malleefowl and provide the required shelter (Western Ecological, 2021). However, only a small portion of these areas are within the development envelope, and it is adjacent to previously cleared areas for current mining activities (GIS Database, 2022).</p>	Not likely to be at variance	No
<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 vegetation survey undertaken in November 2021 did not identify any Threatened flora in the survey area (Terratree, 2021a), and there are no known records of Threatened flora within the permit area (GIS Database). However, there is evidence of <i>Gastrolobium graniticum</i> (Threatened) recorded approximately 3.8 km from the application area (GIS Database). Some areas within the proposed permit boundary may have suitable habitat for this species.</p>	Not likely to be at variance	Yes Refer to Section 3.2.1, above.



Assessment against the clearing principles	Variance level	Is further consideration required?
<p>Principle (d): <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the permit area (GIS Database).</p>	Not likely to be at variance	No
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p>Principle (e): <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 falls within the Coolgardie IBRA bioregion (GIS Database). The vegetation within the application area is recorded as:</p> <p>Beard vegetation association 9: Medium woodland; coral gum (<i>Eucalyptus torquata</i>) &amp; goldfields blackbutt (<i>E. le soufii</i>) (Government of Western Australia, 2019; GIS Database).</p> <p>According to the Government of Western Australia (2019), Beard vegetation association 9 retains approximately 98% of its pre-European extent at the state and bioregion level. The vegetation within the application area is not significant as a remnant of native vegetation in an area that has been extensively cleared (GIS Database). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	Not likely to be at variance	No
<p>Principle (h): <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>There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the Kangaroo Hills Timber Reserve which is located approximately 5 kilometres west, south-west of the application area (GIS Database). The proposed clearing is unlikely to impact on the environmental values of any conservation area.</p>	Not likely to be at variance	No
<b>Environmental value: land and water resources</b>		
<p>Principle (f): <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>There are no permanent watercourses or wetlands within the area proposed to clear. Four minor, non-perennial watercourses intersect the application area (GIS Database). Drainage lines within the project area are poorly defined and are only likely to flow following major rainfall events. During the fauna survey, drainage line habitats were identified (Western Ecological, 2021). This habitat consisted of <i>E. graffithisii</i> mallee trees over mixed shrubland species, including <i>Acacia</i> and <i>Hakea</i> species, over scattered low shrubs (including <i>Eremophila</i> sp., <i>Senna</i> sp. and <i>Atriplex</i> sp.) and mixed grasses (360 Environmental, 2021). However, this habitat is absent from the application area (GIS Database).</p> <p>The proposed clearing is unlikely to impact vegetation growing in association with any watercourse or wetland.</p>	Not likely to be at variance	No
<p>Principle (g): <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 application area is located within the Norseman Zone (DPIRD, 2022). This zone is characterised by undulating plains and uplands (with some sandplains and salt lakes) on granitic rocks of the Yilgarn Craton with calcareous loamy earths, yellow sandy and loamy earths, red loamy earths, red deep sands and salt lake soils (DPIRD, 2022).</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
A large part of the application area has been previously disturbed by mining and exploration activities. It is therefore unlikely that the proposed clearing will have an appreciable impact on land degradation.		
<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 no significant water courses, wetlands, or Public Drinking Water Sources Areas are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality (GIS Database).</p> <p>Ground water analysis identified that the water quality is hyper saline with a Total Dissolved Solids (TDS) between 14,000 – 35,000 mg/L (GIS Database). Given the high TDS, the proposed clearing is not likely to alter groundwater salinity levels within the application area.</p>	Not likely to be at variance	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 climate of the region is semi-arid, with an average rainfall of approximately 269.6 millimetres per year (BoM, 2022).</p> <p>No permanent water courses or waterbodies were recorded within the application area; however, there are four ephemeral drainage lines (GIS Database). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall. Therefore, the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding.</p>	Not likely to be at variance	No

#### Appendix D. Vegetation condition rating scale

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

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from

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

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

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

## Appendix E. 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)
- 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
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- Interim Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- 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

- 360 Environmental (2021) Native Vegetation Clearing Permit (Purpose): Supporting Documentation – Greenfields Expansion. Prepared for Focus Operations Pty Ltd, by 360 Environmental, October 2021.
- 360 Environmental (2022) Biological Surveys – CNX Three Mile Hill, Coolgardie Gold Project. Prepared for Focus Minerals Limited, by 360 Environmental, May 2022.
- 360 Environmental (2022b) Additional information received in relation to clearing permit application CPS 9513/1. Focus Minerals Limited, Western Australia, June 2022.
- BoM (2022) Bureau of Meteorology Website – Climate Data Online, Yalgoo. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 13 May 2022).
- DBCA (2020a) Threatened and Priority Flora (TPFL) Database. Custom Search. Prepared by the Species and Communities Program Department of Biodiversity Conservation and Attractions, Government of Western Australia for Terratree Pty Ltd for Targeted Flora Survey near Coolgardie. (Accessed 19 Nov 2020).
- DBCA (2020b) WA Herbarium Specimen (WA HERB) Database. Custom search. Prepared by the Species and Communities Program, Department of Biodiversity Conservation and Attractions, Government of Western Australia, for Terratree Pty Ltd for Targeted Flora Survey near Coolgardie. (Accessed on the 19 Nov 2020).
- Department of Environment Regulation (DER) (2013) *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: [https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2\\_assessment\\_native\\_veg.pdf](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf)
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Department of Planning, Lands and Heritage (DPLH) (2022) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 13 May Year).
- Department of Primary Industries and Regional Development (DPIRD) (2022) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (Accessed 13 May Year).
- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.

Terratree. (2021a). Targeted Flora and Vegetation Survey - Coolgardie Gold Project, Prepared for Focus Minerals Ltd.

Terratree. (2021b). Targeted Flora Search for *Acacia Websteri* (Priority 1) - Addendum Report to Terratree (2020) Targeted Flora and Vegetation Survey - Coolgardie Gold Project

Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 5 June Year).

Western Ecological (2021) Coolgardie Gold Project - Basic Terrestrial Fauna Survey Final Report. Prepared for Focus Minerals Limited, February 2021.

#### 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>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</i> , Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

##### Definitions:

{**DBCA (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.