



1. Application details and outcomes

1.1. Permit application details

Permit number:	11105/1
Permit type:	Purpose permit
Applicant name:	Northern Star (South Kalgoorlie) Pty Ltd
Application received:	10 June 2025
Application area:	600 hectares
Purpose of clearing:	Mineral production and associated infrastructure
Method of clearing:	Mechanical clearing
Tenure:	Mining Lease 15/469 Mining Lease 15/726 Mining Lease 15/937 Mining Lease 15/938 Mining Lease 15/740 Mining Lease 15/663
Location (LGA area):	Shire of Coolgardie
Colloquial name:	Hercules Gold Mine Project

1.2. Description of clearing activities

Northern Star (South Kalgoorlie) Pty Ltd proposes to clear up to 600 hectares of native vegetation within a boundary of approximately 1,225.14 hectares, for the purpose of mineral production and associated infrastructure (Northern Star, 2025a). The project is located approximately 22 kilometres south of Kalgoorlie-Boulder, within the Shire of Coolgardie (Botanica, 2025; GIS Database).

The application is to allow for development of new open cut pits, new Waste Rock Landform (WRL), topsoil stockpiles and associated mining related infrastructure to support the development and ongoing operation of the Hercules Gold Mine (Northern Star, 2025b).

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	11 June 2026
Decision area:	600 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Mines, Petroleum and Exploration (DMPE) advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix B), relevant datasets (Appendix G), supporting information provided by the applicant (Appendix A) including the results of a flora and vegetation survey (Appendix E), the clearing principles set out in Schedule 5 of the EP Act (Appendix C **Error! Reference source not found.**), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section).

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;
- loss of potentially suitable foraging and dispersal habitat for malleefowl, however no suitable breeding habitat;

- loss of potentially suitable habitat for central long-eared bat, chuditch, and fork-tailed swift, however unlikely to be impacted by the proposed clearing;
- loss of potentially suitable breeding and foraging habitat for western rosella (inland);
- loss of potentially suitable breeding and foraging habitat for southern whiteface;
- loss of some potentially suitable habitat for short range endemic (SRE) invertebrates; and
- potential land degradation in the form of wind erosion.

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

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

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- fauna management (western rosella (inland) condition requiring areas proposed to be cleared to be surveyed to identify trees suitable for use by this species, and to maintain a 10 metre buffer around identified suitable trees);
- fauna management (southern whiteface condition requiring areas proposed to be cleared between 1 July and 31 October are inspected to identify active (in use) southern whiteface nests, and to maintain a 50 metre buffer around identified active nests);
- no clearing within 50 metres of four SRE sample sites (OppMyg05, H09, Opplso01 and Opplso02); and
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion.

2. Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)

Relevant agreements (treaties) considered during the assessment include:

- Japan-Australia Migratory Bird Agreement
- China-Australia Migratory Bird Agreement
- Republic of Korea-Australia Migratory Bird Agreement

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a)
- Technical guidance – *Sampling of short range endemic invertebrate fauna* (EPA, 2016b)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The following measures outlined by the applicant will be incorporated into the planning and development of the Hercules Gold Mine, where appropriate (Northern Star, 2025b):

- the movement of machines and other vehicles shall be restricted to the limits of the areas to be cleared;
- during site works, areas requiring clearing should be clearly marked and access to other areas restricted to prevent accidental clearing of areas to be retained;

- topsoil/growth medium vegetation will be stripped and stockpiled separately for later re-use during rehabilitation activities;
- earth-moving equipment will be free from soil and vegetation prior to entering and leaving the area to be cleared (wash down facilities are available at the site); and
- dust suppression activities will be controlled to ensure that surrounding vegetation is not sprayed with saline water.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

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

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

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

Assessment

Malleefowl

Malleefowl (*Leipoa ocellata*, VU) are primarily found in semi-arid to arid shrublands and low woodlands (three to eight metres in height) dominated by mallee and associated habitats, such as broombush (*Melaleuca uncinata*) and native pine (*Callitris* spp.) scrub (DCCEEW, 2024). Breeding habitat requires sandy or gravel substrate, abundant leaf litter and a dense canopy cover for the building of a large mound for egg incubation (DCCEEW, 2024). This species favours mallee that has been long unburnt and ungrazed (DCCEEW, 2024). There are 24 recent records of malleefowl within the local surrounds (20 kilometres), with the closest being less than one kilometre west of the application area (Phoenix, 2024a; GIS Database). The fauna field survey did not record malleefowl or secondary signs within the application area (Phoenix, 2024a). However, in another fauna survey by Phoenix (2026) adjacent to the application area, one extinct malleefowl mound was recorded less than two kilometres east. Mapping of the mounds' locations are provided in Appendix E.

Malleefowl habitat assessments were conducted by Phoenix (2024a) at five sites within the application area and nine sites outside of the application area, provided in Appendix E. Four sites within the application area (H01, H02, H07 and H12) and eight sites outside of the application area (H03, H05, H06, H08, H10, H11, H13 and H14) were determined to be moderate suitability for malleefowl, which is suitable for foraging and dispersal, but not for breeding (Phoenix, 2024a). The remaining two sites (H04 and H09) were determined to be of low suitability for malleefowl, which are unsuitable for breeding but may still provide some use for foraging and dispersal (Phoenix, 2024a).

All three fauna habitats in the application area are suitable for malleefowl as foraging and dispersal habitat; however, the application area lacks the vegetation density necessary for breeding (Appendix E; Botanica, 2025; Phoenix, 2024a). Though the application area is not considered critical to the survival of the species, the species is likely to visit for foraging and dispersal, given the presence of suitable habitat and the species range and regional records (Phoenix, 2024a).

A survey by GHD (2015) occurred in May 2015 to comply with a malleefowl fauna management condition under a now expired permit (CPS 6368/1, granted on 24 December 2014 for HBJ Minerals Pty Ltd) overlapping part of the application area. Although just outside the permit boundary, the survey recorded malleefowl tracks, one recent mound from within the last three years (i.e. 2012 to 2015) with eggshells and feathers, and four old mounds that had not been used for approximately 15 years (GHD, 2015). These mapped locations are provided in Appendix E.

Central long-eared bat

Central long-eared bat (*Nyctophilus major tor*; P3) inhabits a range of habitats including *Eucalyptus* and *Allocasuarina* woodlands and shrublands in arid and semi-arid regions (Menkhorst and Knight, 2011; Phoenix, 2024a). The species roosts mostly in tree hollows, but also in crevices and under loose bark (Menkhorst and Knight, 2011; Phoenix, 2024a). Central long-eared bat forages low on the ground within the shrub layer (Menkhorst and Knight, 2011). The Open Woodland habitat in the application area may support this species (Appendix E; Phoenix, 2024a). Sites in the Open Woodland habitat are described as having extensive *Eucalyptus* bark litter (Phoenix, 2024a). It is recommended that trees containing hollows be inspected prior to clearing to avoid clearing any potential roosting or nesting habitat.

Western rosella (inland)

Western rosella (inland) (*Platycercus icterotis xanthogenys*; P4) inhabits drier eucalypt and sheoak woodlands and scrubs, especially those containing wandoo (*Eucalyptus wandoo*), flooded gum (*Eucalyptus rudis*), salmon gum (*Eucalyptus salmonophloia*), tall mallee and rock sheoak (*Allocasuarina huegeliana*) (BirdLife Australia, 2017; DEC, 2009). The species nests in tree hollows and has a widespread distribution across the Wheatbelt and Goldfields regions (DEC, 2009). Western rosella (inland) was recorded from near Kalgoorlie by Phoenix in 2021, 26 kilometres north-north-east of the application area (Phoenix, 2024a). Additionally, salmon gum (*Eucalyptus salmonophloia*), tall *Eucalyptus* and sheoak (*Casuarina* sp.), a common food item, occur within the application area (Botanica, 2025; DEC, 2009). The Open Woodland habitat in the application area may support this species (Appendix E; Phoenix, 2024a). The Great Western Woodlands is an important area for the species due to extensive habitat loss in the Wheatbelt (Fox et al., 2016). Woodlands with mature trees provide critical habitat for western rosella (inland), with presence of tree hollows for breeding being a limiting factor for the species (Fox et al., 2016). Modelling of seasonal western rosella (inland) distribution indicates in non-breeding seasons, individuals may move around the landscape, however during breeding season, restrict themselves to breeding territories (Fox et al., 2016). Therefore, it is recommended that hollow availability is assessed and hollows retained for the conservation of this species (Fox et al., 2016). Due to the presence

of suitable breeding habitat and records within the surrounding areas, it is considered possible that western rosella may occur in the application area.

Chuditch

Chuditch (*Dasyurus geoffroi*; VU) have disappeared from approximately 95 percent of their former range across all mainland Australian states (DEC, 2012). Most of the species are now found in varying densities throughout the jarrah forest, south coast of Western Australia, and at lower densities in the Goldfields and Wheatbelt (DEC, 2012). Chuditch utilise a range of habitats including forest, mallee shrublands, woodland and desert, with dense populations found in riparian jarrah forest (DEC, 2012). Chuditch typically live in habitats that offer a high level of protection, such as rocky outcrops, or forests and woodlands with abundant coarse woody debris (Phoenix, 2024a). The application area is likely too open to be core habitat of this species; however, the Open Woodland habitat in the application area may support chuditch foraging and dispersal (Appendix E; Phoenix, 2024a). Some areas with an abundance of fallen logs may provide suitable refuge for chuditch if populations are in existence in the surrounding areas (Phoenix, 2024a). No recent records occur within the local surrounds (20 kilometres); however, the species is difficult to detect (Phoenix, 2024a; GIS Database).

Fork-tailed swift

Fork-tailed swift (*Apus pacificus*; MI) may forage sporadically over the application area, however, the species is almost exclusively aerial and are unlikely to be reliant on the terrestrial habitat within the application area (Commonwealth of Australia, 2008-; Phoenix, 2024a).

Southern whiteface

Southern whiteface (*Aphelocephala leucopsis*; VU) was listed under the EPBC Act in March 2023 (Commonwealth of Australia, 2008-). Suitable habitat includes open woodlands and shrublands, usually dominated by *Acacia*, *Eucalyptus* or saltbush (*Atriplex* sp.) with an understorey of grasses or shrubs (BirdLife Australia, n.d.; DCCEEW, 2023). All three fauna habitats within the application area contain suitable foraging and nesting habitat for southern whiteface (Appendix E; Phoenix, 2024a). Critical habitat for the species includes relatively undisturbed habitats, areas with leaf litter for foraging and living and dead tree hollows and crevices for nesting and roosting (DCCEEW, 2023). Sites in the Open Woodland fauna habitat were described as being generally in excellent condition, having lots of large hollow logs and up to 35 per cent leaf litter cover (Appendix F; Phoenix, 2024a).

This species is known to breed between July and October by building large bulky domed-shaped nests made out of grass, bark and roots within hollows or crevices in trees and low bushes (DCCEEW, 2023). The trees within the application area have hollows suitable for nesting, indicating that the application area may be important habitat for southern whiteface (Phoenix, 2024a). It is recommended that areas of critical habitat are not cleared or degraded, as habitat loss and fragmentation are the biggest threat to the species (DCCEEW, 2023). Additionally, there are several records of this species within 20 kilometres of the application area, and it is within the current known range of the species (DCCEEW, 2023; Phoenix, 2024a). Due to the presence of suitable breeding habitat and records within the surrounding areas, it is considered possible that southern whiteface may occur in the application area.

Arid bronze azure butterfly

Arid bronze azure butterfly (ABAB) (*Ogyris petrina*; CR) populations are severely fragmented, restricted in geographic range and sensitive to clearing and habitat disturbance (DBCA, 2020). The preferred habitat is described as vegetation of mature mixed gimlet (*Eucalyptus salubris*) and salmon gum (*Eucalyptus salmonophloia*) woodlands, on soils ranging from loamy to sandy, with an open understorey (DBCA, 2020; WABSI, 2022). ABAB has an obligate association with the sugar ant *Camponotus* sp. nr. *terebrans* (DBCA, 2020). Caterpillars of the ABAB are found only within nests of the sugar ant species, associated with smooth-barked eucalypt woodlands (Phoenix, 2024b). The application area is within 10 kilometres of the original population at Lake Douglas (Phoenix, 2024b).

Open Woodland habitat within the application area was identified as potentially suitable habitat for ABAB due to the presence of smooth-barked eucalypt species (Appendix E; Phoenix, 2024b). Following DBCA (2020) guidelines, surveys first target the host ant. *Camponotus* sp. nr. *terebrans* was not detected at any of the sites (Phoenix, 2024b). Additionally, a one-day reconnaissance butterfly survey was undertaken on 13 June 2025 (Phoenix, 2026) to determine if the habitat in the adjacent area was more prospective or if *Camponotus* sp. nr. *terebrans* were present. The survey did not identify any colonies of the ABAB host ant in the adjacent area (Phoenix, 2026). Though potentially suitable habitat occurs in the application area, the butterfly survey considered ABAB absent due to the absence of the host ant (Phoenix, 2024b).

Inland hairstreak butterfly

The preferred habitat of inland hairstreak (*Jalmenus aridus*; P2) is summarised as open woodland, *Senna artemisioides* subsp. *filifolia*, a variety of flowering shrubs (*Eremophila*, *Scaevola* and *Maireana*) and open areas of well drained exposed ground adjoining the host plants (Eastwood et al., 2023). *Senna artemisioides* subsp. *filifolia* and *Acacia tetragonophylla* are the two host plant species of inland hairstreak butterflies (Eastwood et al., 2023). The butterfly forms an obligate association with the ant species *Froggattella kirbii* (Eastwood et al., 2023). The host ant species is widely distributed through open woodlands across most of Australia, so the presence of host ants cannot predict the likely presence of the butterfly (Phoenix, 2024b). However, it is considered likely that the species occurs in suitable habitat throughout the Kalgoorlie districts (Phoenix, 2024b). There are no guidelines for surveying inland hairstreak given it is difficult to predict when and where they might occur (Phoenix, 2024b).

The application area is within 10 kilometres of the original population at Lake Douglas and multiple extant populations of the species are known from within 20 kilometres of the application area (Phoenix, 2024b). Open Woodland and Shrubland habitats within the application area were identified as potentially suitable for inland hairstreak (Appendix E; Phoenix, 2024b). Though when other habitat preferences were taken into account, two sites within the surveyed area, with one being within the application area, were considered suitable for the butterfly (Phoenix, 2024b). These two sites were the only areas containing mature *Senna* with *Froggattella kirbii*, a mix on understorey species, good drainage, and some bare ground (Phoenix, 2024b). Mapping of the two sites is provided in Appendix E. The two sites were inspected on 6 October 2024, when the butterflies were known to be active in the region, and no inland hairstreak individuals were detected (Phoenix, 2024b). Additionally, the one-day

reconnaissance butterfly survey (Phoenix, 2026) undertaken to determine if the habitat in the adjacent area was more prospective did not identify any habitat suitable for inland hairstreak in the adjacent area. Though one potentially suitable site occurs in the application area, the butterfly survey considered inland hairstreak absent due to absence of detection in the site inspection (Phoenix, 2024b).

Short range endemic (SRE) invertebrates

Sampling for SRE invertebrates was conducted at eight sites from 1 to 5 July 2024 by Phoenix (2024a). Eleven SRE taxa were recorded within the application area, provided in Appendix B.5 (Phoenix, 2024a). Of these, eight are potential SREs and three are widespread (Phoenix, 2024a). Of the 11 SRE taxa that were recorded within the application area, the following four potential SREs are only known to exist within the application area (Phoenix, 2024a; 2026):

Trapdoor spiders:

- *Aname* 'Phoenix0267'
- Idiopidae 'Phoenix0266'

Centipede:

- *Cryptops* 'Phoenix0259'

Slater:

- *Buddelundia* 'Phoenix0261'

Of the two trapdoor spiders, one specimen of *Aname* 'Phoenix0267' was collected from one site (H12) and one specimen of Idiopidae 'Phoenix0266' was collected from one site (OppMyg05) (Phoenix, 2024a). The one specimen of centipede taxa *Cryptops* 'Phoenix0259' was collected from one site (H09) that is 125 metres from the application area boundary, suggesting there is a potential that it occurs outside of the application area as well (Phoenix, 2024a). The eight specimens of slater taxa *Buddelundia* 'Phoenix0261' were collected from three sites in the application area (H12, Opplso01, Opplso02), indicating it is potentially more widespread (Phoenix, 2024a). These four potential SREs were recorded in the Open Woodland habitat (Appendix E; Phoenix, 2024a). The locations of these four taxa are provided in Figure 10 of Appendix E. As the species listed have not yet been formally described, very little is known about the species biology, ecology and distribution, which makes it difficult to assess the significance of impact (DBCA, 2025).

All three fauna habitats in the application area are considered to have low Potential Habitat Rating (PHR) to support SRE invertebrates, due to the lack of habitat features that provide refugia and absence of geographical barriers restricting dispersal (Appendix F; Phoenix, 2024a). The habitat features that are lacking include south-facing outcrops with crevices, water retaining features and dense vegetation (Phoenix, 2024a). Additionally, the habitat types occur broadly throughout the region and extend out of the application area (Phoenix, 2024a). Threatening processes for SREs include clearing of native vegetation leading to habitat removal and fragmentation (EPA, 2016b). Given the habitats are generally widespread throughout the region and have low complexity, the taxa recorded may occur outside the application area (Phoenix, 2024a). However, distribution is difficult to predict as very little taxonomic comparison is available for each SRE group due to the lack of regional SRE surveys (Phoenix, 2026).

DWER (2026) has advised that the DNA sequences for the specimens should be compared with the WA Museum's genetic database which may reveal additional locations of the taxon and reduce uncertainty regarding the likely distribution. DWER (2026) outlined mitigation and management measures for SRE taxa, including avoiding clearing SRE taxa locations and their habitat; where SRE taxa are only known to occur within direct impact areas, undertaking targeted surveys outside the development envelope to reduce uncertainty regarding the distribution of SREs and potential impacts; retaining SRE habitat and microhabitats through the implementation of appropriate buffers; and controlling weeds and feral animals that can degrade suitable SRE habitat. This is especially important for *Aname* 'Phoenix0267', Idiopidae 'Phoenix0266' and *Cryptops* 'Phoenix0259', as they were each collected from one site only (DWER, 2026; Phoenix, 2024a).

To manage the risks, with consideration to the lack of survey work for SRE taxa, majority of the sites at which the four potential SREs that are only known to exist within the application area were recorded in can be retained using a 50 metre buffer, where practicable. Of these five sites (H12, OppMyg05, H09, Opplso01 and Opplso02; Phoenix, 2024a), one site (H12) is within the indicative mine site, near the pit. These potential SREs can be avoided with a 50 metre buffer around the other four sites (OppMyg05, H09, Opplso01 and Opplso02) to retain the habitats where practicable, along with a weed management condition. The SRE taxa recorded by Phoenix (2024a) may occur outside the application area, given the habitats are generally widespread throughout the region and have low complexity.

Conclusion

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

- potentially suitable foraging and dispersal habitat for malleefowl, however no suitable breeding habitat. Impacts can be minimised through the implementation of a slow directional clearing condition;
- potentially suitable habitat for central long-eared bat, however unlikely to be impacted by the proposed clearing. It is recommended that trees containing hollows be inspected prior to clearing to avoid clearing any potential roosting or nesting habitat;
- potentially suitable breeding and foraging habitat for western rosella (inland). Hollow forming trees that may provide important nesting habitat occur within the application area. To minimise impacts to this species, identified suitable habitat trees should be avoided by 10 metres;
- potentially suitable habitat for chuditch, however unlikely to be impacted by the proposed clearing as Open Woodland habitat extends out of the application area. Impacts can be minimised through the implementation of a slow directional clearing condition;
- some potentially suitable habitat for fork-tailed swift, however unlikely to be impacted by the proposed clearing;

- potentially suitable breeding and foraging habitat for southern whiteface. Hollow forming trees that may provide important nesting habitat occur within the application area. To minimise impacts to this species, identified southern whiteface nests should be avoided by 50 metres between the months of July and October; and
- some potentially suitable habitat for short range endemic (SRE) invertebrates, however unlikely to be significantly impacted by the proposed clearing as Open Woodland habitat extends out of the application area. To minimise impacts to the four potential SREs only known to exist within the application area, the habitats should be avoided by 50 metres where practicable, and weed management implemented.

Arid bronze azure butterfly and inland hairstreak butterfly are unlikely to be significantly impacted by the proposed clearing.

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

Conditions

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

- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- fauna management (western rosella (inland) condition requiring areas proposed to be cleared to be surveyed to identify trees suitable for use by this species, and to maintain a 10 metre buffer around identified suitable trees);
- fauna management (southern whiteface condition requiring areas proposed to be cleared between 1 July and 31 October are inspected to identify active (in use) southern whiteface nests, and to maintain a 50 metre buffer around identified active nests);
- no clearing within 50 metres of four SRE sample sites (OppMyg05, H09, Opplso01 and Opplso02); and
- take hygiene steps to minimise the risk of the introduction and spread of weeds.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 21 October 2025 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC2017/007 - Marlinyu Ghoorlie) over the area under application (DPLH, 2026). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993*, and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2026). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

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

Other relevant authorisations required for the proposed land use include:

- A Mining Development and Closure Proposal approved under the *Mining Act 1978*

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

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
<p>On 10 March 2026, the applicant provided spatial data for the proposed mine site layout of the MDCP that is currently being prepared and an additional fauna survey report by Phoenix (2026) of the Hercules Extension, east of the application area.</p> <p>On 2 April 2026, the applicant provided the ISA number for the fauna survey report; ISA-0001458.</p>	<p>This information is considered in the assessment of principles (a) and (b), and as part of Section 3.2.1.</p>

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details																					
Local context	<p>The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia (GIS Database). It is surrounded by gold, lithium, tantalum and mica mine operations and native vegetation within the Great Western Woodlands (GIS Database).</p> <p>The predominant land use in the region is Unallocated Crown Land, Crown Reserves, grazing, native pastures, conservation and mining leases (CALM, 2002).</p>																					
Ecological linkage	<p>According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).</p>																					
Conservation areas	<p>There are no conservation areas within the application area (GIS Database). The nearest conservation area is Karamindie State Forest, located directly adjacent to the application area sharing the west border (GIS Database). There are an additional five conservation areas in the local surrounds (20 kilometres); Yallari Timber Reserve, Kurrawang Nature Reserve, Kambalda Nature Reserve, Scahill Timber Reserve and Lakeside Timber Reserve (GIS Database).</p>																					
Vegetation description	<p>The application area occurs within the Eastern Goldfields subregion (COO03) of the Coolgardie bioregion (GIS Database). The vegetation of the application area is broadly mapped as the Beard vegetation associations (GIS Database):</p> <ul style="list-style-type: none"> • 936: Medium woodland; salmon gum; • 9: Medium woodland; coral gum (<i>Eucalyptus torquata</i>) and goldfields blackbutt (<i>E. le souffii</i>), (also some e10,11); and • 123: Succulent steppe with open low woodland; sheoak over saltbush and bluebush. <p>Two flora and vegetation surveys were conducted over the application area (Botanica, 2024; 2025) during March 2024 and October 2024. The following nine vegetation associations were recorded within the application area (Botanica, 2025):</p> <table border="1"> <thead> <tr> <th>Fauna habitat</th> <th>Vegetation community code</th> <th>Vegetation description</th> </tr> </thead> <tbody> <tr> <td>Clay-Loam Plain: Chenopod Shrubland</td> <td>CLP-CS1</td> <td>Mid chenopod shrubland of <i>Maireana pyramidata</i> and <i>M. sedifolia</i> with mid shrubland of <i>Cratystylis subspinescens</i> over low open shrubland of <i>Ptilotus divaricatus</i> and mixed forbs on clay-loam plain.</td> </tr> <tr> <td>Clay-Loam Plain: Eucalypt Woodland</td> <td>CLP-EOW1</td> <td>Low open woodland of <i>Eucalyptus salmonophloia</i> over mid open shrubland of <i>Senna artemisioides</i> subsp. <i>filifolia</i> and low shrubland of <i>Cratystylis subspinescens</i> on clay-loam plain.</td> </tr> <tr> <td></td> <td>CLP-EW1</td> <td>Low woodland of <i>Eucalyptus salmonophloia</i> over mid shrubland of <i>Senna artemisioides</i> subsp. <i>filifolia</i> and low open shrubland of <i>Olearia muelleri</i> on clay-loam plain.</td> </tr> <tr> <td></td> <td>CLP-EW2</td> <td>Low woodland of <i>Eucalyptus oleosa</i> over mid shrubland of <i>Cratystylis conocephala</i>/<i>Senna artemisioides</i> subsp. <i>filifolia</i> and low open shrubland of <i>Olearia muelleri</i> on clay-loam plain.</td> </tr> <tr> <td></td> <td>CLP-EW4</td> <td>Low open woodland of <i>Eucalyptus lesouefii</i>/<i>E. oleosa</i> over mid sparse shrubland of <i>Melaleuca sheathiana</i> and low shrubland of <i>Cratystylis conocephala</i> on clay-loam plain.</td> </tr> <tr> <td>Drainage Depression: Eucalypt Woodland</td> <td>DD-EW1</td> <td>Low woodland of <i>Eucalyptus salmonophloia</i> over mid shrubland of <i>Eremophila interstans</i> subsp.</td> </tr> </tbody> </table>	Fauna habitat	Vegetation community code	Vegetation description	Clay-Loam Plain: Chenopod Shrubland	CLP-CS1	Mid chenopod shrubland of <i>Maireana pyramidata</i> and <i>M. sedifolia</i> with mid shrubland of <i>Cratystylis subspinescens</i> over low open shrubland of <i>Ptilotus divaricatus</i> and mixed forbs on clay-loam plain.	Clay-Loam Plain: Eucalypt Woodland	CLP-EOW1	Low open woodland of <i>Eucalyptus salmonophloia</i> over mid open shrubland of <i>Senna artemisioides</i> subsp. <i>filifolia</i> and low shrubland of <i>Cratystylis subspinescens</i> on clay-loam plain.		CLP-EW1	Low woodland of <i>Eucalyptus salmonophloia</i> over mid shrubland of <i>Senna artemisioides</i> subsp. <i>filifolia</i> and low open shrubland of <i>Olearia muelleri</i> on clay-loam plain.		CLP-EW2	Low woodland of <i>Eucalyptus oleosa</i> over mid shrubland of <i>Cratystylis conocephala</i> / <i>Senna artemisioides</i> subsp. <i>filifolia</i> and low open shrubland of <i>Olearia muelleri</i> on clay-loam plain.		CLP-EW4	Low open woodland of <i>Eucalyptus lesouefii</i> / <i>E. oleosa</i> over mid sparse shrubland of <i>Melaleuca sheathiana</i> and low shrubland of <i>Cratystylis conocephala</i> on clay-loam plain.	Drainage Depression: Eucalypt Woodland	DD-EW1	Low woodland of <i>Eucalyptus salmonophloia</i> over mid shrubland of <i>Eremophila interstans</i> subsp.
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Characteristic	Details						
	<p><i>virgata/Senna artemisioides</i> subsp. <i>filifolia</i> over low shrubland of <i>Cratystylis subspinescens</i> in drainage line.</p> <hr/> <p>Rocky Hillslope: Acacia/Eucalypt Woodland</p> <table border="0"> <tr> <td data-bbox="655 215 767 237">RH-AFW1</td> <td data-bbox="831 215 1414 293">Low woodland of <i>Acacia collegialis</i> over mid shrubland of <i>Dodonaea lobulata/Senna artemisioides</i> subsp. <i>filifolia</i> on rocky hillslope.</td> </tr> <tr> <td data-bbox="655 315 751 338">RH-EW1</td> <td data-bbox="831 315 1398 421">Low woodland of <i>Eucalyptus lesouefii</i> and mid shrubland of <i>Acacia acuminata/Senna artemisioides</i> subsp. <i>filifolia</i> over open low shrubland of <i>Eremophila caerulescens</i> on rocky hillslope.</td> </tr> <tr> <td data-bbox="655 443 751 465">RH-EW2</td> <td data-bbox="831 443 1430 521">Low woodland of <i>Eucalyptus torquata</i> over mid shrubland of <i>Senna artemisioides</i> subsp. <i>filifolia</i> and low open shrubland of <i>Olearia muelleri</i> on rocky hillslope</td> </tr> </table> <hr/> <p>Note that CLP-AFW1 and CLP-EW3 were removed from table as they do not occur in the application area, and CLP-CS1 was added as it appears to have been missed in the report but present in spatial data.</p> <p>Mapping of vegetation types is provided in Appendix E (Botanica, 2025).</p>	RH-AFW1	Low woodland of <i>Acacia collegialis</i> over mid shrubland of <i>Dodonaea lobulata/Senna artemisioides</i> subsp. <i>filifolia</i> on rocky hillslope.	RH-EW1	Low woodland of <i>Eucalyptus lesouefii</i> and mid shrubland of <i>Acacia acuminata/Senna artemisioides</i> subsp. <i>filifolia</i> over open low shrubland of <i>Eremophila caerulescens</i> on rocky hillslope.	RH-EW2	Low woodland of <i>Eucalyptus torquata</i> over mid shrubland of <i>Senna artemisioides</i> subsp. <i>filifolia</i> and low open shrubland of <i>Olearia muelleri</i> on rocky hillslope
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Vegetation condition	<p>The vegetation survey (Botanica, 2025) of the application area found the vegetation to be in Very Good to Good Keighery (1994) condition. As approximately 17.5 per cent (approximately 214.5 hectares) of the application area is cleared due to previous mining and exploration activities, pastoral land use and vehicle tracks (Botanica, 2025), part of the application area is in Completely Degraded Keighery (1994) condition.</p> <p>Therefore, the vegetation within the proposed clearing area ranges from Very Good to Completely Degraded Keighery (1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix D. Mapping of vegetation condition over the surveyed area is provided in Appendix E (Botanica, 2025).</p>						
Climate and landform	<p>The climate of the Eastern Goldfields subregion is described as arid to semi-arid, with average annual rainfall of 255.0 millimetres recorded at the nearest weather station, with rainfall sometimes in summer but usually in winter (BoM, 2026; CALM, 2002).</p> <p>The application area is mapped with elevations ranging between 340 to 420 metres Australian Height Datum (GIS Database).</p>						
Soil description and land degradation risk	<p>The soil within the application area is mapped as the following systems (DPIRD, 2026a; Waddell and Galloway, 2023; GIS Database):</p> <ul style="list-style-type: none"> • Gumland: Extensive pedepains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys. Is susceptible to erosion if perennial shrub cover is reduced, if protective mantles are disturbed or if infrastructure is poorly located. • Coolgardie: Uplands and undulating plains associated with ultramafic greenstones, supporting eucalypt woodlands and halophytic shrublands. Is susceptible to erosion if perennial shrub cover is reduced or if soil surface is disturbed. • Graves: Basalt and greenstone rises and low hills supporting eucalypt woodlands with prominent saltbush and bluebush understoreys. May be susceptible to erosion when disturbed. • Lefroy: Salt lakes and fringing saline plains, sandy plains and dunes with chenopod low shrublands. May be susceptible to wind erosion. • Lakeside: Sandplains with occasional sand dunes and prominent claypans, supporting mallee eucalypts and spinifex. May be susceptible to wind erosion. <p>The four soil landscape systems that occur in the application area are (Botanica, 2025):</p> <ul style="list-style-type: none"> • Mx43 atlas system (265k9): Gently undulating valley plains and pediments; some outcrop of basic rock. • BB5 atlas system (265g4): Rocky ranges and hills of greenstones-basic igneous rocks. • My154 atlas system (266l8): Undulating country on acid volcanic rocks and sedimentary materials. • SV15 atlas system (266n6): Salt lakes and their associated areas. 						
Waterbodies	<p>The desktop assessment and aerial imagery indicated that two minor, non-perennial watercourses intersect the application area (GIS Database).</p> <p>There are no Wetlands of National or International Importance within the application area or local surrounds (20 kilometres) (GIS Database). The nearest Wetland of National Importance is Rowles Lagoon System located approximately 71 kilometres north-west of the application area (GIS Database).</p>						
Hydrogeography	<p>The application area is located within the Goldfields Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). The nearest Public Drinking Water Source Area is</p>						

Characteristic	Details
	Broad Arrow Dam Catchment Area located approximately 52 kilometres north of the application area (GIS Database). The groundwater salinity is mapped as 14,000 to 35,000 milligrams per litre total dissolved solids which is described as saline (BoM, 2019; GIS Database).
Flora	There are no records of threatened flora species within the application area or local surrounds (20 kilometres) (Botanica, 2024; 2025; GIS Database). There are records of 18 conservation significant flora species within a 20 kilometre radius of the application area (GIS Database). Additional conservation significant flora identified by Botanica (2024; 2025) have also been considered.
Ecological communities	There are no Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) within the application area or the local surrounds (20 kilometres) (Botanica, 2024; 2025; GIS Database). The nearest known PEC is Emu Land System (P3), approximately 50 kilometres north-east of the application area (GIS Database).
Fauna	There are no records of conservation significant fauna species within the application area (Botanica, 2024; 2025; Phoenix, 2024a; 2024b; GIS Database). There are records of 12 conservation significant fauna species within the local surrounds (20 kilometres) (GIS Database), and additional fauna have also been considered that were identified from the fauna survey (Phoenix, 2024a) and butterfly survey (Phoenix, 2024b). Eleven SRE invertebrates were recorded in the field survey (Phoenix, 2024a) within the application area, of which four are only known to exist in the application area (Phoenix, 2024a; 2026). Mapping of SRE invertebrates recorded is provided in Appendix E.
Fauna habitat	There are three broad fauna habitats described within the application area, in addition to cleared area (Phoenix, 2024a): <ul style="list-style-type: none"> • Open Woodland (OW): Open woodland of tall <i>Eucalyptus</i> over mixed shrubs such as <i>Eremophila</i> and <i>Maireana</i> on red-brown clay loam with black gravel. • Shrubland (Sh): Fringes of granite extrusion. Shrubland with scattered <i>Brachychiton</i>, tall <i>Acacia</i> and <i>Melaleuca</i> paperbark over <i>Eremophila</i> and <i>Acacia</i> on red-brown clay loam with granite rocks. • Chenopod Shrubland (CS): Chenopod shrubland including <i>Maireana</i> with isolated <i>Eucalyptus</i> and taller shrubs of <i>Exocarpos</i> and <i>Allocasuarina</i> on red-brown clay loam with black gravel. <p>Note that the north thinner section of the application area was not surveyed by Phoenix (2024a), but fauna habitat was also described in the flora and vegetation survey by Botanica (2025), and it was similar to the south section of the application area.</p> <p>All three habitats are widespread throughout the region (Phoenix, 2024a). Mapping of fauna habitat types is provided in Appendix E and representative photos are provided in Appendix F (Phoenix, 2024a).</p>

B.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre-European extent) (%)
IBRA Bioregion - Coolgardie	12,912,204.35	12,648,491.39	97.96	2,114,349.37	16.37
Beard vegetation associations - State					
9	240,509.33	235,161.94	97.78	18,984.28	7.89
123	9,090.22	8,902.02	N/A	N/A	N/A
936	698,752.00	676,689.18	96.84	28,010.13	4.01
Beard vegetation associations - Bioregion (Coolgardie)					
9	240,441.99	235,100.97	97.78	18,984.28	7.90
123	9,090.22	8,902.02	97.93	N/A	N/A
936	586,792.23	584,336.14	99.58	18,103.64	3.09

Government of Western Australia (2019)

B.3. Flora analysis table

The following conservation significant flora species have been recorded within 20 kilometres of the application area or in biological surveys (Botanica, 2024; 2025; GIS Database). The assessment of these species included consideration in field surveys, potentially suitable habitat within the application area, species distribution and known regional records (Botanica, 2024; 2025; Brown and Davis, 2019; Chinnock, 2007; Cranfield, 1995; Hislop and Wege, 2020; Hislop, 2019; Jones and French, 2016; Maslin, 1982; Nicolle and French, 2007; 2023; Rye, 2020; Sage and Shepherd, 2007; Short, 2016; Trudgen and Rye, 2014; WAH, 1998-; WANOSCG, n.d.; Williams, 2022; GIS Database).

Species name	Suitable habitat features? [Yes, Potential, No]	Suitable vegetation type? [Yes, Potential, No]	Suitable soil type? [Yes, Potential, No]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Yes, No]
Priority 1						
<i>Acacia websteri</i>	Yes	No	No	<20	21	Yes
<i>Cyathostemon divaricatus</i>	Yes	Potential	Potential	<25	7	Yes, but incorrect season for identification
<i>Eremophila xantholaemus</i>	Yes	Yes	Yes	<35	4	Yes
<i>Pterostylis xerampelina</i>	Yes	Potential	Potential	<15	15	Yes
<i>Ptilotus procumbens</i>	No	No	No	<20	5	Yes
<i>Ricinocarpos digynus</i>	Yes	Potential	No	<30	10	Yes
<i>Thryptomene planiflora</i>	Potential	Potential	No	<10	23	Yes
Priority 2						
<i>Acacia kerryana</i>	Yes	Potential	Yes	<25	16	Yes, but incorrect season for identification
<i>Elachanthus pusillus</i>	Yes	Yes	Yes	<25	7	Yes
<i>Eremophila praecox</i>	Yes	Potential	No	<10	52	Yes
<i>Goodenia salina</i>	No	No	No	<10	14	Yes
<i>Lepidium merrallii</i>	Potential	No	Yes	<25	3	Yes
Priority 3						
<i>Alyxia tetanifolia</i>	Yes	Yes	Yes	<10	14	Yes
<i>Austrostipa turbinata</i>	Potential	Yes	Yes	<15	25	Yes
<i>Eremophila succinea</i>	Potential	Yes	Yes	<15	10	Yes
<i>Eucalyptus urna</i> subsp. <i>xesta</i>	Yes	Yes	Yes	<20	25	No
<i>Isolepis australiensis</i>	Yes	Potential	No	<10	10	Yes
<i>Lepidium fasciculatum</i>	Potential	Yes	Potential	<30	13	Yes
<i>Melaleuca coccinea</i>	Potential	Potential	Potential	<20	35	Yes
<i>Notisia intonsa</i>	No	Yes	No	<10	29	Yes
<i>Phlegmatospermum eremaeum</i>	Yes	Potential	Yes	<25	19	Yes
<i>Styphelia rectiloba</i>	Yes	No	No	<20	7	Yes
<i>Xanthoparmelia dayiana</i>	No	Yes	No	<15	5	Yes
Priority 4						
<i>Eremophila caerulea</i> subsp. <i>merrallii</i>	Yes	No	Yes	<20	23	Yes
<i>Eucalyptus jutsonii</i> subsp. <i>jutsonii</i>	No	No	No	<15	36	Yes
<i>Frankenia glomerata</i>	No	No	No	<15	69	Yes, but incorrect season for identification

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

B.4. Fauna analysis table

The following conservation significant fauna species have been recorded within 20 kilometres of the application area or in biological surveys (Phoenix, 2024a; 2024b; GIS Database). The likelihood of occurrence for these species was determined by potentially suitable habitat within the application area, species distribution and known regional records (BirdLife Australia, 2017; n.d.; Commonwealth of Australia, 2008-; DBCA, 2020; DCCEEW, 2023; 2024; DEC, 2009; 2012; Eastwood et al., 2023; Fox et al., 2016; GHD, 2015; Menkhorst and Knight, 2011; Menkhorst, et al., 2019; Phoenix, 2024a; 2024b; 2026; GIS Database).

Species name	Conservation status	Suitable habitat features? [Yes, Potential, No]	Suitable vegetation type? [Yes, Potential, No]	Distance of closest record to application area (km)	Likelihood of occurrence in application area
Mammal					
Central long-eared bat (<i>Nyctophilus major tor</i>)	P3	Yes	Yes	<25	Possible
Chuditch (<i>Dasyurus geoffroii</i>)	VU	Yes	Yes	<30	Possible
Bird					
Carnaby's cockatoo (<i>Zanda latirostris</i>)	EN	Potential	Potential	<20	Unlikely
Common greenshank (<i>Tringa nebularia</i>)	MI	No	No	<20	Very unlikely
Common sandpiper (<i>Actitis hypoleucos</i>)	MI	No	No	<20	Very unlikely
Fork-tailed swift (<i>Apus pacificus</i>)	MI	Yes	Yes	<90	Unlikely, transient visitor
Glossy ibis (<i>Plegadis falcinellus</i>)	MI	No	No	<20	Very unlikely
Grey-tailed tattler (<i>Tringa brevipes</i>)	P4 and MI	No	No	<10	Very unlikely
Malleefowl (<i>Leipoa ocellata</i>)	VU	Yes	Yes	<1	Likely
Sanderling (<i>Calidris alba</i>)	MI	No	No	<20	Very unlikely
Sharp-tailed sandpiper (<i>Calidris acuminata</i>)	MI	No	No	<20	Very unlikely
Southern whiteface (<i>Aphelocephala leucopsis</i>)	VU	Yes	Yes	<20	Possible
Western rosella (inland) (<i>Platycercus icterotis xanthogenys</i>)	P4	Yes	Yes	<30	Possible
Wood sandpiper (<i>Tringa glareola</i>)	MI	No	No	<20	Very unlikely
Invertebrate					
Arid bronze azure butterfly (<i>Ogyris petrina</i>)	CR	Yes	Yes	<10	Possible
Inland hairstreak (<i>Jalmenus aridus</i>)	P2	Yes	Yes	<15	Possible

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

B.5. Short range endemic (SRE) analysis table

The following SRE taxa have been recorded in the surveyed area by Phoenix (2024a). Mapping of the surveyed area by Phoenix (2024a) compared to the application area is provided in Appendix E. Rows highlighted in red indicate SRE taxa discovered by Phoenix where the only records to date that exist are within the application area and are discussed in Section 3.2.1 (Phoenix, 2024a; 2026). The location of these four taxa is provided in Figure 10 of Appendix E.

Taxa name	SRE status using the WA Museum categories (Confirmed, Potential, Widespread, Uncertain)	Survey by Phoenix (2024a)			Recorded in survey by Phoenix (2026), east of application area	Previously recorded
		Recorded within application area	Recorded outside of application area	Habitat type		
Class: Arachnida, Infraorder: Mygalomorphae (trapdoor spiders)						
<i>Aname</i> 'MYG212'	Widespread	X		OW		X
<i>Aname</i> 'Phoenix0267'	Potential	X		OW		
<i>Cethagus</i> 'MYG050'	Widespread	X	X	OW		X
<i>Gaius austini</i>	Widespread	X		OW		X

Taxa name	SRE status using the WA Museum categories (Confirmed, Potential, Widespread, Uncertain)	Survey by Phoenix (2024a)			Recorded in survey by Phoenix (2026), east of application area	Previously recorded
		Recorded within application area	Recorded outside of application area	Habitat type		
Idiopidae 'Phoenix0266'	Potential	X		OW		
<i>Idiosoma</i> 'Phoenix0264'	Potential	X	X	OW, Sh	X	
<i>Idiosoma</i> 'Phoenix0265'	Potential	X	X	OW, CS, Sh		
Class: Arachnida, Order: Pseudoscorpions (pseudoscorpions)						
Chernetidae 'Phoenix0185'	Potential	X	X	OW	X	X
<i>Beierolpium</i> 'Phoenix0268'	Potential		X	OW		
Class: Chilopoda (centipedes)						
<i>Cryptops</i> 'Phoenix0259'	Potential	X		OW		
<i>Sepedonophilus</i> 'Phoenix0260'	Potential		X	OW	X	
Class: Diplopoda (millipedes)						
<i>Antichiropus</i> 'Phoenix0263'	Potential		X	OW, CS		X
Class: Malacostraca, Order: Isopoda (slaters)						
<i>Buddelundia</i> 'Phoenix0261'	Potential	X		OW		
<i>Paraplatyarthrus</i> 'Phoenix0262'	Potential	X	X	OW		

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<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>Fauna</p> <p>The area proposed to be cleared may contain significant habitat for conservation significant fauna (discussed in Section 3.2.1).</p> <p>Flora and vegetation</p> <p>The area proposed to be cleared is not known to contain conservation significant flora. There is potentially suitable habitat for 15 conservation significant flora (listed in Appendix B.3), however none were identified during recent field surveys and suitable habitat extends beyond the permit boundary.</p> <p>The application area occurs within the north central region of the Great Western Woodlands which represents the largest and healthiest temperate woodlands (Botanica, 2025; Watson et al., 2008). The Great Western Woodlands covers approximately 16 million hectares and is recognised for its flora and fauna species richness and high level of endemic flora taxa (Watson et al., 2008). Given the size of the application area, the proposed clearing is unlikely to have any significant impact on the conservation values of the Great Western Woodlands.</p> <p>A total of six weed species were identified within the application area (Botanica, 2025). None of the species are listed as Weeds of National Significance (WoNS) or Declared Pests in Western Australia under the <i>Biosecurity and Agriculture Management Act 2007</i> (DPIRD, 2026b), however weeds have potential to out-compete native flora, significantly change the dynamics of a natural ecosystem and reduce 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.</p>	May be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."</p> <p><u>Assessment:</u></p>	May be at variance	Yes <i>Refer to Section 3.2.1, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
The area proposed to be cleared may contain significant habitat for conservation significant fauna.		
<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 is unlikely to contain flora species listed under the BC Act (Botanica, 2025; GIS Database).</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>There are no known TECs located within or in close proximity to the application area (Botanica, 2024; 2025; GIS Database).</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001; Government of Western Australia; 2019). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (GIS Database).</p>	Not at variance	No
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>Given the close distance to the nearest conservation area Karamindie State Forest, located directly adjacent to the application area (GIS Database), the proposed clearing is unlikely to have a direct impact on the environmental values of the conservation area, however there may be indirect impacts (DBCA, 2026). Altered hydrology, dust and other impacts associated with mining activities will be considered under the <i>Mining Act 1978</i>. Potential impacts to environmental values of the conservation area as a result of the proposed clearing may be minimised by the implementation of a weed management condition.</p>	May be at variance	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>There are no permanent waterbodies or watercourses within the application area. However, two minor non-perennial watercourses intersect the application area (Northern Star, 2025b; GIS Database). One mapped vegetation type within the application area, DD-EW1, is associated with these watercourses (Appendix E; Botanica, 2024; GIS Database). Therefore, the proposed clearing may impact on vegetation associated with a watercourse and may disrupt surface water flows. Potential impacts can be minimised with a watercourse management condition.</p>	At variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>All land systems mapped within the application area are susceptible to soil erosion when native vegetation cover is removed (DPIRD, 2026a; Waddell and Galloway, 2023). Noting the extent of the application area and the condition of the vegetation, the proposed clearing is likely to have an appreciable impact on land degradation. The impacts of erosion may be reduced by a staged clearing condition to utilise cleared areas within three months of conducting clearing, to prevent cleared areas from being unstable and prone to erosion for extended periods of times.</p>	May be at variance	No
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Given no permanent watercourses, wetlands or Public Drinking Water Sources Areas are recorded within the application area (GIS Database), the proposed clearing is unlikely to cause deterioration in surface or ground water quality.		
<p>Principle (j): <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>Assessment:</p> <p>The average annual rainfall at the nearest weather station is 255 millimetres (BoM, 2026), and the average annual evaporation is between 2,400 and 2,800 millimetres, greatly exceeding rainfall (BoM, 2006). No permanent watercourses or waterbodies are recorded within or in close proximity to the application area (GIS Database). Therefore, the proposed clearing is unlikely to contribute to waterlogging or increase the incidence or intensity of flooding (GIS Database).</p>	Not likely to be at variance	No

Appendix D. Vegetation condition rating scale

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

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B. J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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

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

Appendix E. Biological survey mapping excerpts

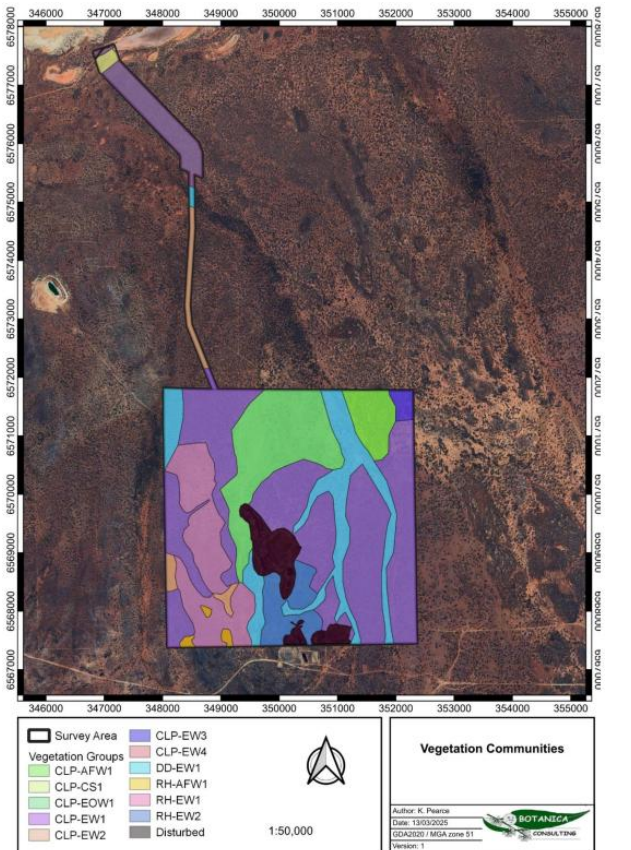


Figure 1. Vegetation communities in surveyed area (Botanica, 2025). Note that CLP-AFW1 and CLP-EW3 do not occur in application area.

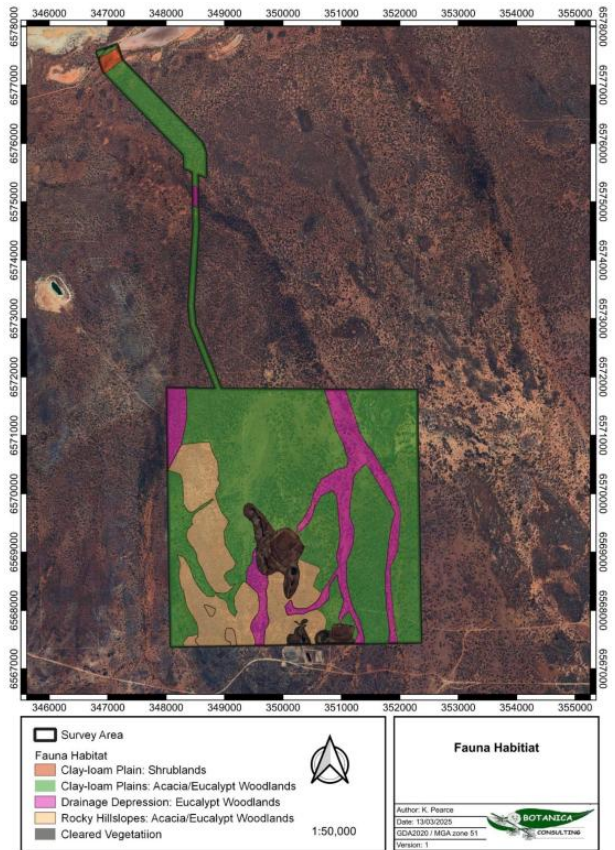


Figure 2. Fauna habitat types in surveyed area (Botanica, 2025). Note that as CLP-AFW1 does not occur in application area, this removes *Acacia* woodland within the clay-loam plain habitat in the application area.

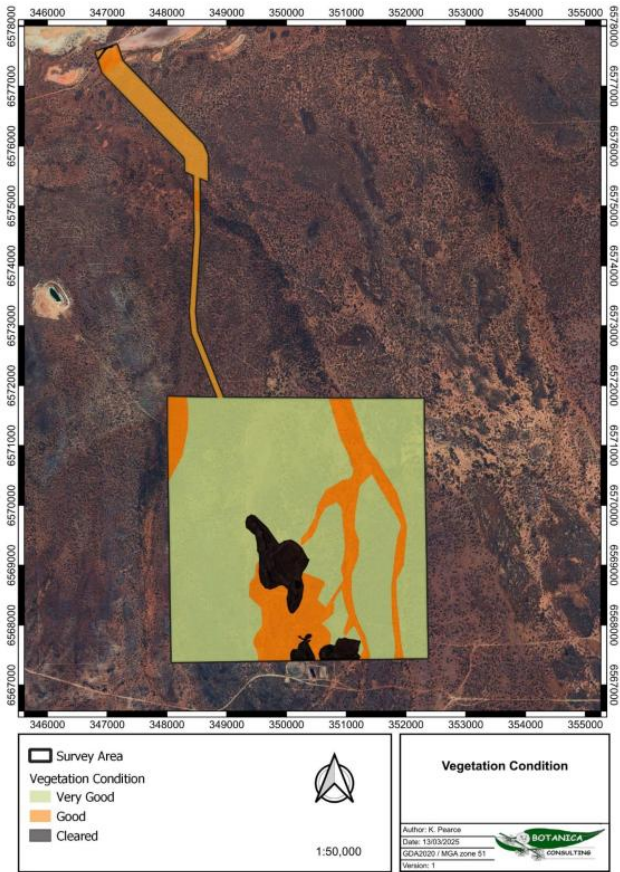


Figure 3. Vegetation condition in surveyed area (Botanica, 2025).

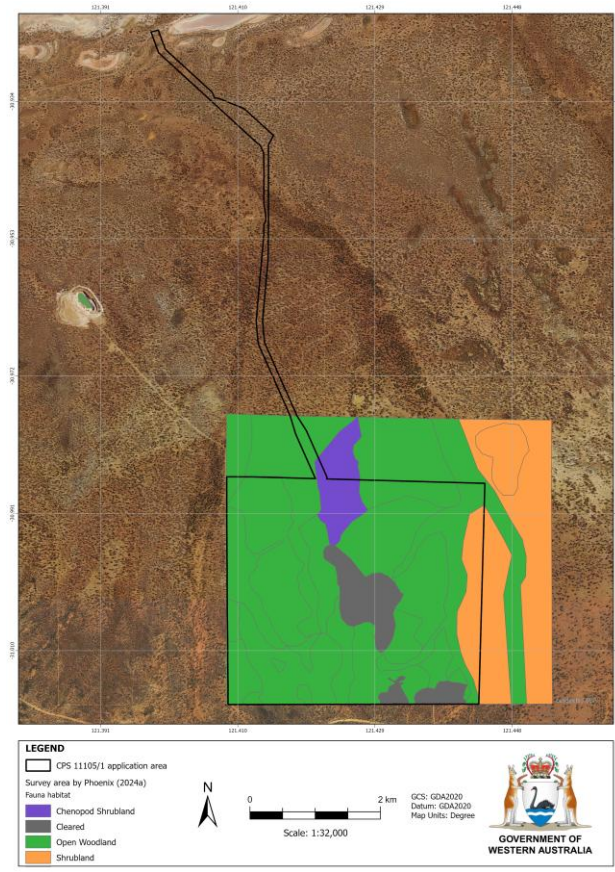


Figure 4. Comparison between application area and surveyed area by Phoenix (2024a), depicting fauna habitat types.

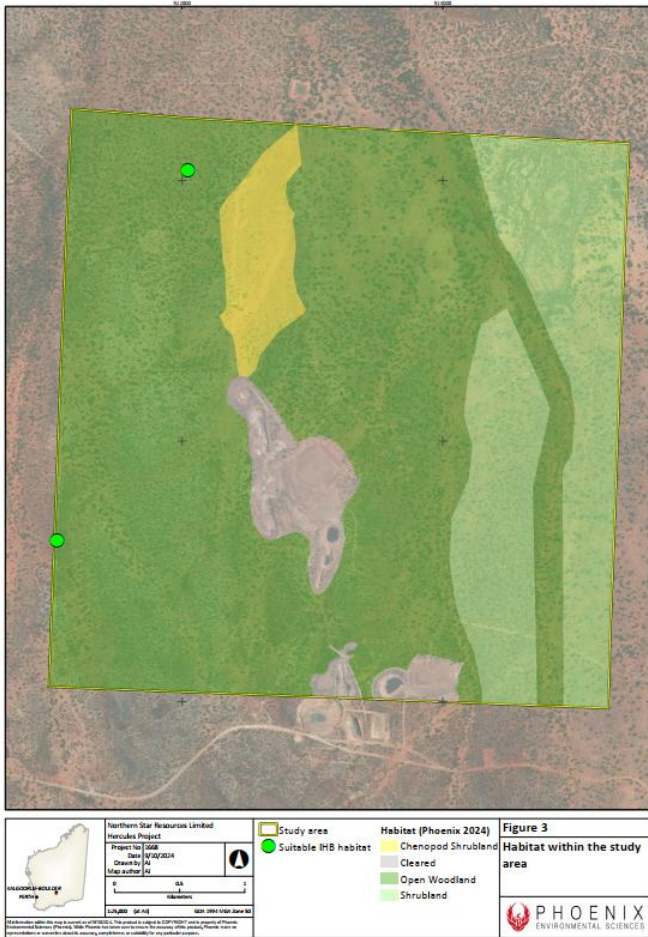


Figure 5. Fauna habitats and sites in surveyed area identified as suitable habitat for inland hairstreak butterfly (Phoenix, 2024b). Note that the north site does not occur in the application area.

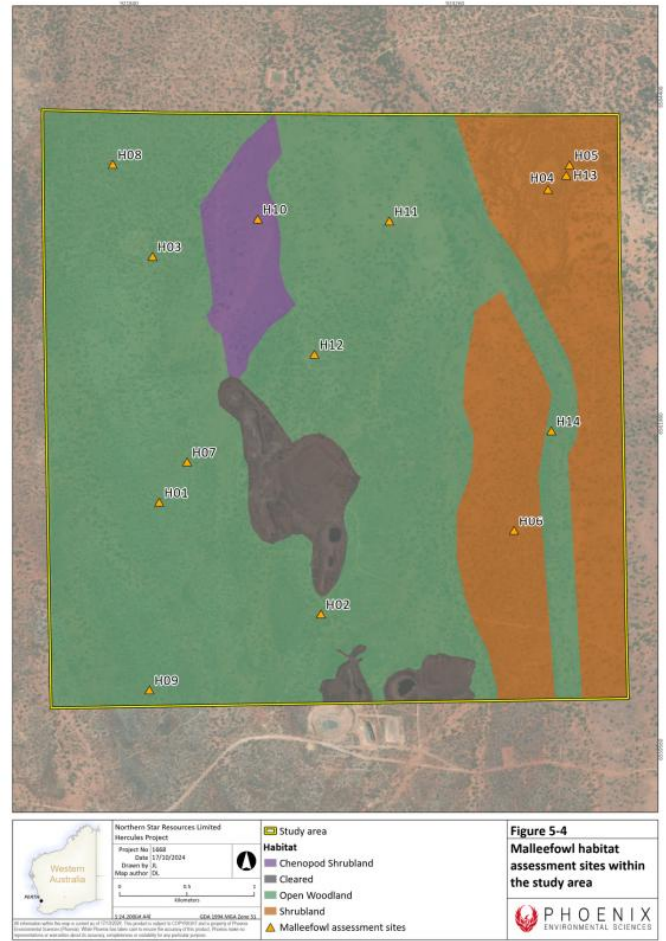


Figure 6. Fauna habitats and malleefowl habitat assessment sites in surveyed area (Phoenix, 2024a).

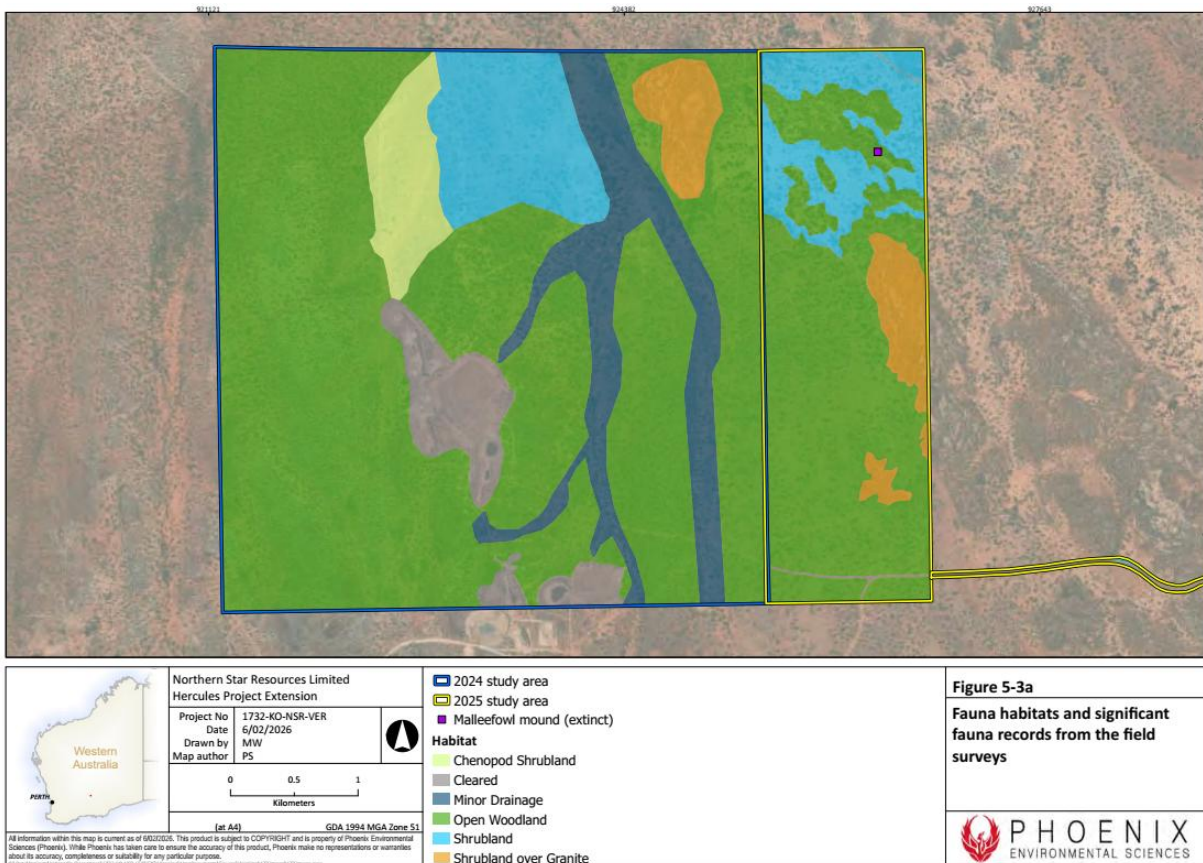


Figure 7. Extinct malleefowl mound record location from adjacent fauna survey and updated fauna habitats over Phoenix (2024a) surveyed area (Phoenix, 2026).

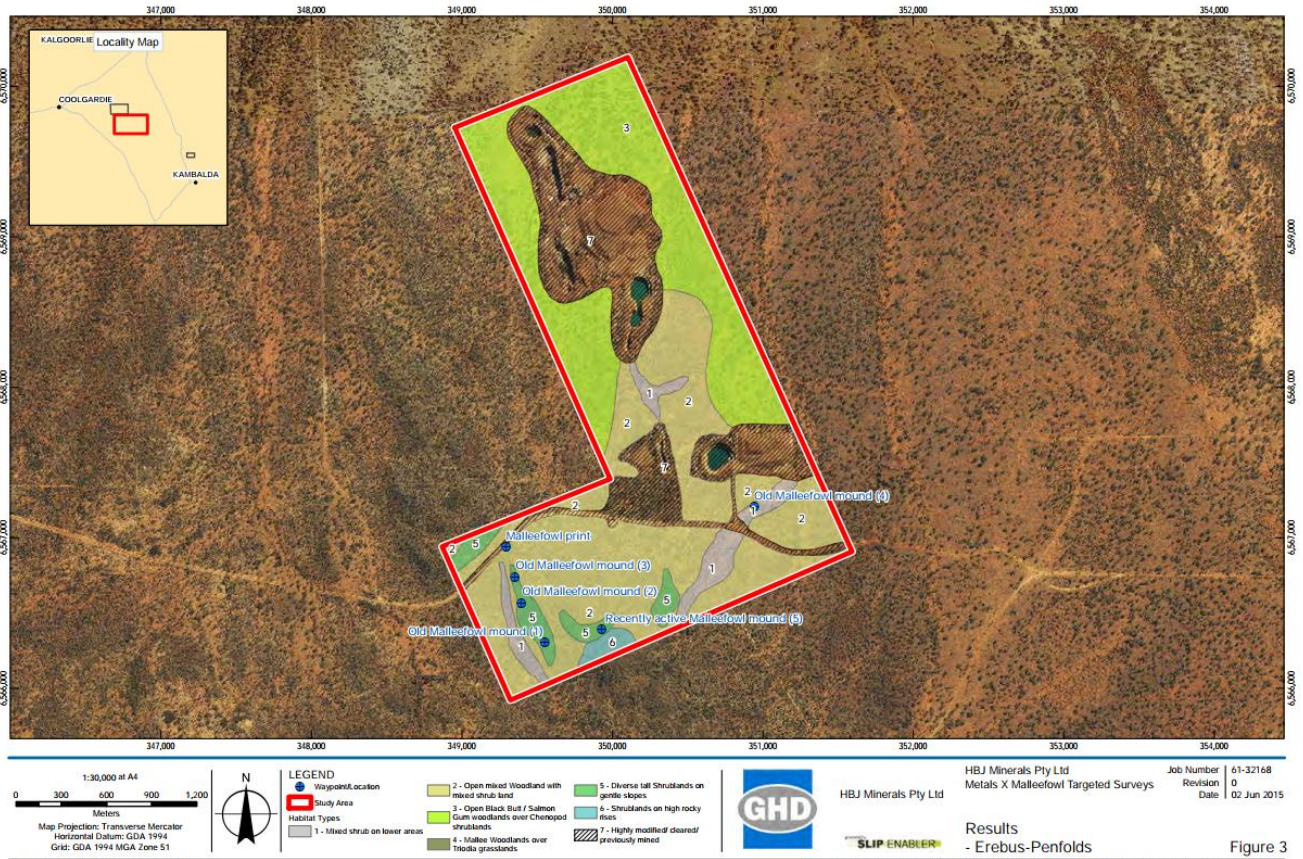


Figure 8. Records of malleefowl over expired permit CPS 6368/1, overlapping a portion of the application area (GHD, 2015).

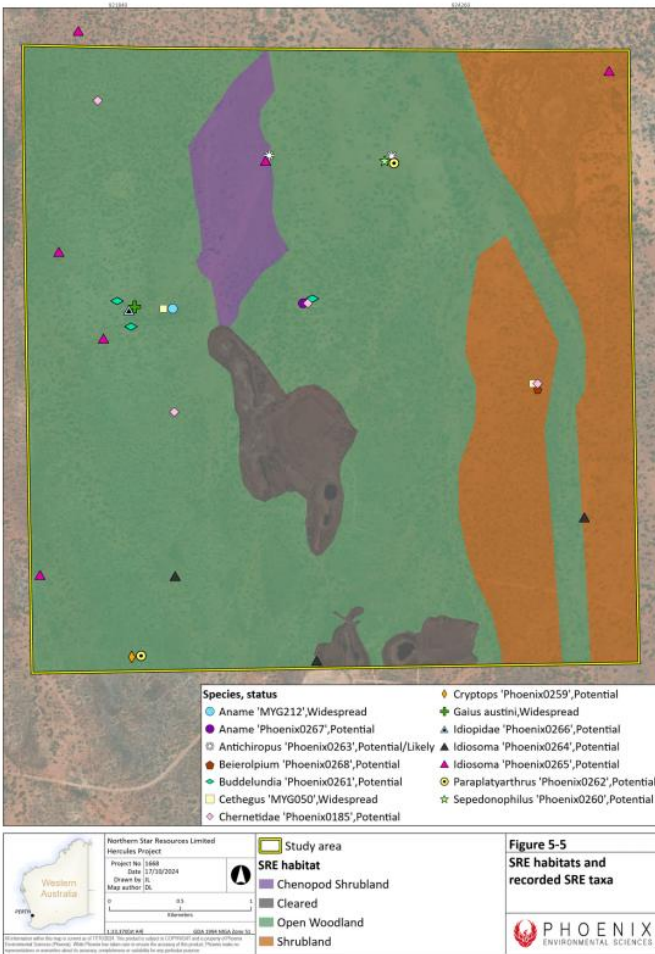


Figure 9. Fauna habitats and recorded SRE taxa in surveyed area (Phoenix, 2024a).

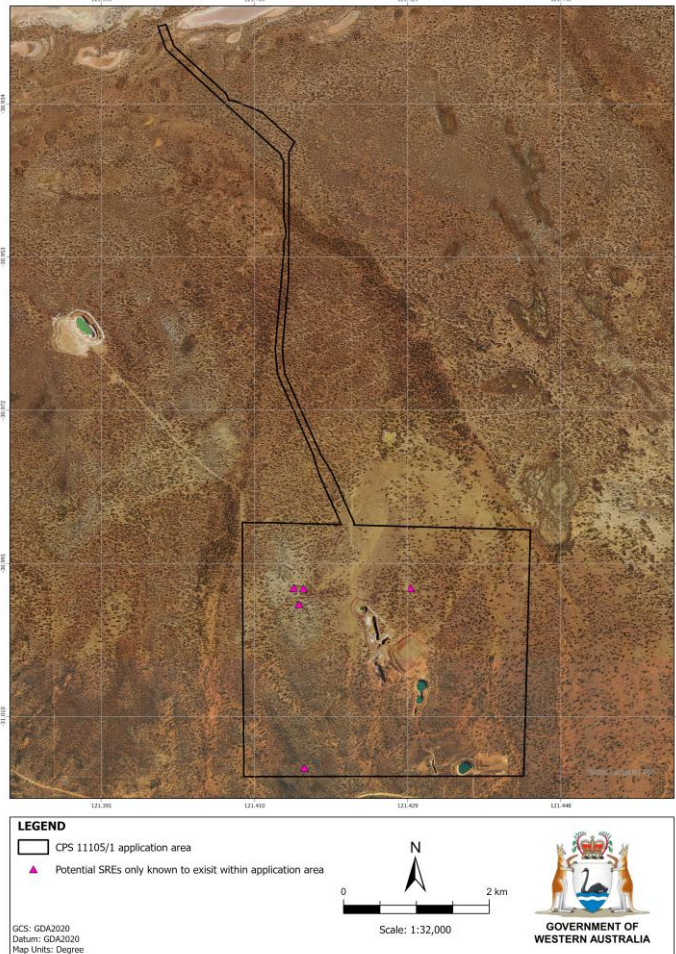


Figure 10. Five locations within application area containing four potential SRE taxa only known to exist within application area, recorded by Phoenix (2024a).

Appendix F. Representative photos of fauna habitats



Photo 1: Open Woodland (OW) with 35% leaf litter cover on clay-loam plain (Phoenix, 2024a).



Photo 2: Open Woodland (OW) on rocky hillslope (Phoenix, 2024a).



Photo 3: Shrubland (Sh) with 40% leaf litter cover (Phoenix, 2024a).



Photo 4: Chenopod Shrubland (CS) (Phoenix, 2024a).

Appendix G. Sources of information

G.1. GIS datasets

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

- 10 metre contours (DPIRD-073)
- Cadastre (Polygon) (LGATE-217)
- Clearing Instruments Activities (Areas Approved to Clear) (DWER-076)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Directory of Important Wetlands in Australia - Western Australia (DBCA-045)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- IBSA Survey Details (DWER-118)
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Native Title (Determination) (LGATE-066)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)

- Reserves (LGATE-227)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Rivers (DWER-036)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Soil Landscape Mapping - Systems (DPIRD-064)
- Townsites (LGATE-248)
- WA Now Aerial Imagery
- Wild Rivers (DWER-087)

Restricted GIS Databases used:

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

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Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety (now DMPE)
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DMPE)
DMP	Department of Mines and Petroleum, Western Australia (now DMPE)
DMPE	Department of Mines, Petroleum and Exploration
DoEE	Department of the Environment and Energy (now DCCEEW)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia

DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

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

Threatened species

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

Threatened fauna is the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

Threatened flora is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of [Ministerial Guideline Number 1](#) and [Ministerial Guideline Number 2](#) that adopts the use of the International Union for Conservation of Nature (IUCN) [Red List of Threatened Species Categories and Criteria](#), and is based on the national distribution of the species.

CR Critically endangered species

Threatened species considered to be “*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.

EN Endangered species

Threatened species considered to be “*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.

VU Vulnerable species

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.

Extinct species

Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.

EX Extinct species

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

EW Extinct in the wild species

Species that “*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in*

its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild.

Specially protected species

SP Specially protected species

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered, or vulnerable) or extinct species under the BC Act cannot also be listed as specially protected species.

MI Migratory species

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Migratory species include birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) or The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

CD Species of special conservation interest (conservation dependent fauna)

Species of special conservation need that are dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Currently only fauna are listed as species of special conservation interest.

OS Other specially protected species

Species otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Currently only fauna are listed as species otherwise in need of special protection.

Priority species

P Priority species

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department's website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

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

Assessment of priority status is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 Priority One - Poorly-known species – known from few locations, none on conservation lands

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 Priority Two - Poorly-known species – known from few locations, some on conservation lands

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, for example, national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

P3 Priority Three - Poorly-known species – known from several locations

Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. These species need further survey.

P4 Priority Four - Rare, Near Threatened and other species in need of monitoring

- (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.
- (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as a conservation dependent specially protected species.
- (c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.
- (d) Other species in need of monitoring.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.
- (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.
- (e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
- (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
- (j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.