



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 9383/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Aurene MIT Pty Ltd

1.3. Property details

Property: Exploration Licences 29/790, 29/921, 29/970, 29/971, 29/973, 29/993, 29/1007, 29/1008, 29/1014, 29/1016
General Purpose Leases 29/29, 29/30
Mining Leases 29/150, 29/151, 29/421
Miscellaneous Licences 29/137, 29/139, 29/145, 29/153, 29/154

Local Government Area: Shire of Menzies
Colloquial name: Mt Ida Gold Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1,000		Mechanical Removal	Mineral Exploration, Mineral Production and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 4 February 2022

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The vegetation of the application area is broadly mapped as the following Beard vegetation associations:
18: Low woodland; mulga (*Acacia aneura*);
39: Shrublands; mulga scrub;
202: Shrublands; mulga & *Acacia quadrimarginea* scrub;
251: Low woodland; mulga & *Allocasuarina cristata*; and
484: Shrublands; jam thicket (GIS Database).

Several flora and vegetation surveys have been undertaken within sections of the application area, however there are large portions of the application area which remain unsurveyed. The following vegetation associations were recorded within the central portion of the application area:

AcAeEm - Low woodland of *Acacia caesaneura*, *A. pteraneura*, and occasionally *Eucalyptus lesouefii*, over tall sparse to open shrubland of *A. effusifolia*, *Grevillea extorris*, and occasionally *A. burkittii*, over mid sparse to open shrubland of *Eremophila metallicorum*, *Sida* sp. Golden calyces glabrous (H.N. Foote 32), and *Cryptandra connata*;

AcAriAt/AcPbb - Low woodland to open forest of *Acacia caesaneura* and occasionally *A. mulganeura*, over tall sparse to open shrubland of *A. ramulosa* var. *linophylla*, over sparse shrubland of *A. tetragonophylla*, *Cryptandra connata*, and variably present stands of *Eremophila forrestii* subsp. *forrestii*;

AdDI - Tall sparse shrubland of *Acacia duriuscula* with variably present *Brachychiton gregorii* and *Casuarina pauper*, over mid sparse shrubland of *Dodonaea lobulata*, *Senna artemisioides* subsp. *filifolia*, and *Scaevola spinescens*;

EsAdEs - Low woodland of *Eucalyptus salubris* and occasionally *E. lesouefii*, over tall sparse shrubland of *Acacia duriuscula* over mid sparse shrubland of *Eremophila scoparia*, *E. oppositifolia* var. *angustifolia*, and *Scaevola spinescens*;

Ph - Low open shrubland of *Ptilotus helichrysoideus* and *Frankenia irregularis* (Phoenix, 2021).

Mulga Shrubland - Open Shrub Mallee of *Acacia aneura*, *A. mulganeura* and *A. caesaneura* over *A. tetragonophylla*, *Dodonaea rigida*, *Cryptandra distigma*, and *Eremophila latrobei* subsp. *latrobei* over *Cryptandra connata*, *E. homoplastica*, *E. metallicorum*, *Ptilotus obovatus* and *Sida* sp. dark green fruits.

Mulga over rocky Ironstone outcrop - Open Shrub Mallee of *Acacia caesaneura*, *A. quadrimarginea*, *Acacia grasbyi*, *A. ramulosa* subsp. *ramulosa* and *A. aneura* over *Dodonaea rigida*, *D. viscosa* subsp. *spatulata*,

Philotheca brucei subsp. *brucei* and *Hybanthus floribundus* subsp. *curvifolius* over *Eremophila metallicorum*, *Olearia stuartii*, *Ptilotus obovatus*, *Calytrix erosipetala* and *Atriplex bunburyana*.

Drainage line - Shrub Mallee of *Acacia caesaneura*, *A. aneura* with occasional *Eucalyptus lucasii* and *E. oleosa* subsp. *oleosa* over *A. tetragonophylla*, *Santalum spicatum* and *A. burkittii* over, *Enchylaena tomentosa* var. *tomentosa*, *Ptilotus obovatus*, *Senna artemisioides* subsp. *filifolia* and *Sida* sp. dark green fruits.

Eucalyptus oleosa* over Mulga over *Eremophila pantonii - Tree Mallee of *Eucalyptus oleosa* subsp. *oleosa* over *Acacia aneura*, *A. caesaneura*, *A. burkittii* and *A. pteraneura* over *Senna artemisioides* subsp. *filifolia*, *Ptilotus obovatus*, *Eremophila pantonii* and *Atriplex bunburyana*.

Eucalyptus clelandiorum* over *Eremophila pantonii* over *Ptilotus obovatus - Low Woodland A of *Eucalyptus clelandiorum* over *Eremophila pantonii*, *E. scoparia* and *E. oldfieldii* subsp. *angustifolia* over *Ptilotus obovatus*, *Maireana sedifolia*, *Acacia erinacea*, *Senna artemisioides* subsp. *filifolia* and *Atriplex vesicaria*.

***Frankenia* shrubland** - Dwarf Scrub D of *Frankenia sessilis*, *Maireana georgei* and *Ptilotus obovatus* with occasional overstorey of *Acacia mulganeura*, *A. tetragonophylla* and *Eremophila oldfieldii* subsp. *angustifolia*.

Mulga over Chenopod Shrubland - Open Scrub of *Acacia aneura*, *A. mulganeura* and *A. caesaneura* over *Senna artemisioides* subsp. *filifolia* over *Maireana sedifolia*, *Atriplex bunburyana* and *Ptilotus obovatus* (NVS, 2019).

Clearing Description	Mt Ida Gold Project. Aurenne MIT Pty Ltd proposes to clear up to 1,000 hectares of native vegetation within a boundary of approximately 18,442 hectares, for the purposes of mineral exploration, mineral production and associated activities. The project is located approximately 72 kilometres north-west of Menzies, within the Shire of Menzies.
Vegetation Condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994); to: Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).
Comment	The vegetation condition was derived from a vegetation survey conducted by GLS (2019), NVS (2019; 2020), and Phoenix (2021). The proposed clearing of 1,000 hectares of native vegetation is for the development of a gold mining operation, which includes a mining area, infrastructure, tracks and ancillary areas, over a 10 year period (Aurenne, 2021a). DMIRS considers a 5 year permit life to be more appropriate given the gaps in biological knowledge of the application area.

3. Assessment of application against Clearing Principles

(a) Native vegetation should not be cleared if it comprises a high level of biodiversity.

Comments	Proposal is not likely to be at variance to this Principle The clearing permit application area is located within the Eastern Murchison subregion of the Interim Biogeographic Regionalisation for Australia Murchison Bioregion (GIS Database). This subregion is characterised by mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and <i>Tecticornia</i> shrublands (CALM, 2002). Several flora and vegetation surveys have been undertaken over a small section of the western side of the application area (GLS, 2019; NVS, 2019; 2020; Phoenix, 2021). Aerial imagery suggests that the vegetation types recorded by GLS (2019), NVS (2019; 2020) and Phoenix (2021) are widespread within the application area (GIS Database). There are two vegetation types considered to have local or regional significance; AcArlAt/AcPbb and Ph. Vegetation type Ph is considered to be restricted, mapped in three small pockets within the survey area, totalling 0.91 hectares, but may be more common outside the survey area (Phoenix, 2021; GIS Database). Vegetation type AcArlAt/AcPbb provides habitat for the Priority 1 Flora species <i>Jacksonia lanicarpa</i> , however this vegetation type occupies the majority of the area surveyed (Phoenix, 2021). There were no Threatened Flora species recorded within the survey areas (GLS, 2019; NVS, 2019; 2020; Phoenix, 2021). Available databases did not record any Threatened Flora species within the application area (GIS Database). There were four individuals across four locations of the Priority 1 Flora species <i>Jacksonia lanicarpa</i> recorded during the Phoenix (2021) flora and vegetation survey. Further targeted survey work was undertaken within suitable habitat (vegetation type AcArlAt/AcPbb) for <i>Jacksonia lanicarpa</i> by Phoenix during 29 to 30 September 2021 (Aurenne, 2021b). Approximately 1,200 plants over 10 locations were recorded, with suitable habitat noted extensively in the north-eastern tenement areas (Aurenne, 2021b). The proposed clearing may potentially impact up to 22 per cent of the surveyed individuals (Aurenne, 2021b). DBCA (2022) advise that this species is known from five locations that do not occur on conservation managed land. The proposed clearing will impact 12.5 per cent of the total known population of <i>Jacksonia lanicarpa</i> , however given the number of plants have not been recorded at all known locations, it is likely that the actual impact is likely to be less (DBCA, 2022). Given this, the proposed impact on <i>Jacksonia lanicarpa</i> is not likely to be significant on a regional scale, however is considered significant at a local scale (DBCA, 2022). Potential impacts to conservation significant flora may be minimised by the implementation of a flora management condition. Aurenne (2021b) advise that suitable habitat for <i>Jacksonia lanicarpa</i> is common locally, and regionally, therefore further populations may be identified in the future.
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Available databases show historical records of two Priority flora species within the application area; five records of *Calotis* sp. Perrinvale Station (R.J. Cranfield 7096) (Priority 3) and 150 records *Hemigenia exilis* (Priority 4) (GIS Database). If these records still exist, the proposed clearing of these individuals is not likely to impact the conservation status of these species given their widespread distribution in the regional area (Western Australian Herbarium, 1998-).

There are no known Priority or Threatened Ecological Communities within the application area. The buffer of the Perrinvale/Walling vegetation complexes (Banded Ironstone Formation) Priority Ecological Community (PEC) is located approximately three kilometres west of the application area (GIS Database). The proposed clearing is unlikely to impact on the environmental values of the PEC.

There were two weed species recorded within the application area (Aurenne, 2021a). Clearing activities have the potential to result in an increase in the incidence of weed species, which may negatively impact on the biodiversity of the local area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

There were five fauna habitats identified across the application area (Phoenix, 2021). The habitats are well represented in the local region and do not contain core habitat for conservation significant species. Given the habitats and habitat features present within the application area, the application area is not likely to support a higher level of faunal diversity than surrounding areas.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Aurenne (2021a)
Aurenne (2021b)
CALM (2002)
DBCA (2022)
GLS (2019)
NVS (2019)
NVS (2020)
Phoenix (2021)
Western Australian Herbarium (1998-)

GIS Database:

- IBRA Australia
- Imagery
- Pre-European Vegetation
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Flora
- Threatened Fauna

(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.

Comments **Proposal is not likely to be at variance to this Principle**

Fauna surveys have been undertaken over a portion of the western section of the application area by Phoenix (2021), Terrestrial Ecosystems (2019a; 2019b) and Bennelongia (2021), which recorded five faunal habitats:

- Drainage;
- Low Hill;
- Mulga Plain;
- Steep Hill; and
- Woody Slope (Phoenix, 2021).

These habitats are considered typical of the Eastern Murchison subregion and were broadly represented outside of the survey area (Phoenix, 2021; GIS Database).

There are four species of conservation significance that are likely to occur within the application area based on mapped vegetation types (Phoenix, 2021; Terrestrial Ecosystems, 2019a; 2019b);

- Malleefowl (*Leipoa ocellata*) (Vulnerable – BC Act; EPBC Act);
- Chuditch (*Dasyurus geoffroii*) (Vulnerable – BC Act; EPBC Act);
- Long-tailed Dunnart (*Sminthopsis longicaudata*) (Priority 4); and
- Fork-tailed Swift (Migratory – BC Act; EPBC Act).

The Malleefowl and Long-tailed Dunnart were recorded within the application area (Phoenix, 2021; Terrestrial Ecosystems, 2019a; 2019b). Evidence of Malleefowl from tracks and foraging scraps in leaf litter were

identified within the application area as well as five inactive mounds. The inactive mounds suggest that Malleefowl are not currently utilising the area for breeding (Phoenix, 2021). However, there was no systematic transect survey or LiDAR data for Malleefowl mounds, so it is possible there are more recently active mounds in the study area that were not assessed (Phoenix, 2021). Malleefowl are likely to utilise the area for foraging and potentially breeding, although habitats are widespread locally and regionally (Aurenne, 2021a). Potential impacts to Malleefowl may be minimised by the implementation of a fauna management condition requiring further searches for Malleefowl if clearing during the breeding season and avoidance of active mounds, if present.

The Long-tailed Dunnart was recorded provisionally in the application area from a single scat in an area that had been previously cleared, however, Phoenix (2021) could not definitively identify the scat as Long-tailed Dunnart as there are up to eight other Dunnart species potentially in the local area. However, there have been five records of the Long-tailed Dunnart recorded less than 1 kilometre west outside of the application area, with one record only 200 metres outside of the application area (Phoenix, 2021). Long-tailed Dunnart are associated with rocky habitats but may also occur more broadly across habitats surrounding rocky sites to forage or disperse when conditions and cover are suitable (Phoenix, 2021). While a small amount of suitable habitat occurs within the application area, and the Long-tailed Dunnart may utilise the application area as part of its foraging habitat, it is unlikely to be core habitat for this species (GIS Database).

The Chuditch is now largely restricted to southwest Western Australia. Historically the species inhabited a wide range of habitats but today it survives mostly in jarrah forests and woodlands, mallee shrublands and heathlands (DBCA, 2017). Dens are located in hollow logs, tree limbs, rocky outcrops and burrows (DBCA, 2017). Chuditch require adequate numbers of suitable den and refuge sites and sufficient prey biomass (large invertebrates, reptiles and small mammals) to survive. Phoenix (2021) advise that the Chuditch is not likely present in the area due to historic declines of Critical Weight Range mammals in regional populations from predation by foxes, cats and feral dogs. The Chuditch may potentially utilise the woody slopes, low hills and steep hills fauna habitat types (Phoenix, 2021), however if present, sections of the application area may be utilised by these species as a part of a larger range than be reliant specifically on the habitat within the application area (GIS Database).

The Fork-tailed Swift is migratory species and may occasionally utilise the application area for foraging as part of a larger area (Phoenix, 2021).

Suitable habitat for the Arid Bronze Azure Butterfly (*Ogyris subterrestris* subsp. *petrina*; CR – BC Act; EPBC Act) was targeted during the survey (Phoenix, 2021). While some suitable habitat (smooth barked eucalypts on sandy soils) was identified during field surveys, no nests of the ant *Camponotus* sp. *nr. terebrans*, which acts as a host for the Arid Bronze Azure Butterfly, were identified in the survey area (Phoenix, 2021).

A short-range endemic survey was undertaken by Phoenix (2021) over a small portion of the application area. A new species of millipede, centipede and spider was collected but due to the homogeneity of habitats in the survey area and the wider region, no species is likely to be restricted to the application area (Phoenix, 2021).

Bennelongia (2021) undertook a subterranean fauna survey over the majority of the application area, and found 13 stygofauna species and three troglifauna species are known only from the survey area. However, Bennelongia (2021) suggests that characterisation of habitat and use of biological surrogates to infer species ranges are likely to imply that most, if not all, species have wider ranges than the footprint of the application area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

Aurenne (2021a)
Bennelongia (2021)
DBCA (2017)
Phoenix (2021)
Terrestrial Ecosystems (2019a)
Terrestrial Ecosystems (2019b)

GIS Database:

- Imagery
- Pre-European Vegetation
- Threatened Fauna

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.

Comments

Proposal is not likely to be at variance to this Principle

There are no known records of Threatened flora within the application area (GIS Database). Flora surveys covering parts of the application area did not record any species of Threatened flora (GLS, 2019; NVS, 2019; 2020; Phoenix, 2021).

The Threatened Flora species *Ricinocarpus brevis* is known to occur within the regional area, however this species is restricted to banded ironstone ranges, which are not found within the application area (Aurenne, 2021a; GIS Database).

The vegetation associations within the application area are common and widespread within the region (GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened flora.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Aurenne (2021a)
GLS (2019)
NVS (2019)
NVS (2020)
Phoenix (2021)

GIS Database:
- Imagery
- Pre-European Vegetation
- Threatened and Priority 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.

Comments **Proposal is not likely to be at variance to this Principle**

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database).

Vegetation and flora surveys covering parts of the application area did not record any TECs (GLS, 2019; NVS, 2019; 2020; Phoenix, 2021).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GLS (2019)
NVS (2019)
NVS (2020)
Phoenix (2021)

GIS Database:
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

(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.

Comments **Proposal is not at variance to this Principle**

The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (GIS Database). Approximately 99% of the pre-European vegetation still exists in the Murchison Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 18, 39, 202, 251 and 484 (GIS Database). More than approximately 98% of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2019).

Therefore, the application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology Government of Western Australia (2019)

GIS Database:
- IBRA Australia
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is at variance to this Principle

There are no permanent watercourses within the application area, however, there are several ephemeral watercourses that intersect the application area (GIS Database).

There were two vegetation types identified growing in association with ephemeral watercourses; Drainage lines, and AcAeEm (NVS, 2019; Phoenix, 2021). These vegetation types are common within the local and regional area (GIS Database).

Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation growing in association with watercourses may be minimised by the implementation of a watercourse management condition.

**Methodology NVS (2019)
Phoenix (2021)**

GIS Database:
- Hydrography, Lakes
- Hydrography, linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal may be at variance to this Principle

The application area lies within the Rainbow, Bevon, Nubev, Graves, Leonora, Mulline, Gransal, Sherwood, Wyarri and Brooking land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

The Rainbow land system is described as hardpan plains supporting mulga shrublands. This land system is not generally susceptible to erosion (Pringle et al., 1994). However, impedance of sheet flow can initiate erosion and cause water starvation and consequent loss of vigour in vegetation downslope (Pringle et al., 1994).

The Bevon land system is described as dissected uplands with mulga shrublands. This land system may be susceptible to erosion if vegetation cover is removed (Pringle et al., 1994).

The Brooking land system is described as prominent ridges of banded iron formation supporting mulga shrublands. This land system is not generally susceptible to erosion (Pringle, 1994).

The Nubev land system is described as stony plains, minor limonitic low rises and drainage floors supporting mulga and halophytic shrublands. This land system is susceptible to erosion (Pringle et al., 1994).

The Graves land system is described as basalt and greenstone rises and low hills, supporting eucalypt woodlands with prominent saltbush and bluebush understoreys. This land system is susceptible to erosion (Pringle et al., 1994).

The Leonora land system is described as low greenstone hills and stony plains supporting mixed chenopod shrublands. This land system is not generally susceptible to erosion (Pringle et al., 1994).

The Mulline land system is described as greenstone hills supporting acacia shrublands and eucalypt woodlands. This land system is generally susceptible to erosion (Pringle et al., 1994).

The Gransal land system is described as stony plains and low rises on granite, supporting mainly halophytic shrublands. This land system is not generally susceptible to erosion (Pringle et al., 1994).

The Sherwood land system consists of breakaways, kaolinised foot slopes and extensive gently sloping plains on granite supporting mulga shrublands and minor halophytic shrublands. This land system may be susceptible to erosion if vegetation cover is removed (Pringle, 1994).

The Wyarri land system is described as granite domes, hills and tor fields with gritty-surfaced fringing plains supporting mulga and granite wattle shrublands. This land system is not generally susceptible to erosion (Pringle, 1994).

The proposed clearing of up to 1,000 hectares of native vegetation within a boundary of approximately 18,442 hectares, for the purposes of mineral exploration, mineral production and associated activities may cause land degradation. Potential land degradation impacts may be minimised by the imposition of a staged clearing condition.

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology Pringle et al. (1994)

GIS Database:
- Landsystem Rangelands

(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.

Comments **Proposal is not likely to be at variance to this Principle**

There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the former Bulga Downs Pastoral Lease which is located approximately 55 kilometres north-west of the application area (GIS Database). The proposed clearing is unlikely to impact on the environmental values of any conservation area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- DPaW Tenure

(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.

Comments **Proposal is not likely to be at variance to this Principle**

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. The proposed clearing is unlikely to result in significant changes to surface water flows.

The proposed clearing is unlikely to cause deterioration in the quality of underground water.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- Hydrography, Linear
- Public Drinking Water Source Areas

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments **Proposal is not likely to be at variance to this Principle**

The climate of the region is arid, with a low average rainfall of approximately 200 millimetres per year, falling mainly in winter (CALM, 2002). The nearest weather station is Menzies, approximately 73 kilometres southeast of the application area, with an average rainfall of approximately 254 millimetres per year (BoM, 2022).

There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology BoM (2022)
CALM (2002)

GIS Database:
- Hydrographic Catchments - Catchments
- Hydrography, linear

Planning Instrument, Native Title, previous EPA decision or other matter.

Comments

The clearing permit application was advertised on 24 August 2021 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. There was one submission received objecting to the proposed clearing. The concerns included:

- The large amount of clearing proposed;
- Clearing of roadside vegetation may impact tourists utilising the Gold Quest Trail along Mt Ida road;
- The impacts of large scale clearing; and
- That an environmental assessment should be undertaken by an independent consultant.

With consent from the author, the submission was forwarded to the applicant and a response was provided. The proponent advised that:

- The amount of clearing applied for (1,000 hectares) is to develop the mine over a 10 year period, and it is anticipated that the actual clearing footprint will be less.
- There is no intention to clear adjacent to the Mt Ida Road during the clearing for Stage 1 of the project.
- Internal impact assessments indicate that there are no conservation significant or restricted geological features within the application area, and reiterated that the proposed clearing will be minimised where possible; and
- There is an Environmental Superintendent employed who has significant experience in ecology and environmental impact assessments.

There are no native title claims over the area under application (DPLH, 2022). 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.

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.

Methodology DPLH (2022)

4. References

- Aurenne (2021a) Aurenne Mining Mt Ida Gold Project Clearing Permit Application Supporting Information. Aurenne Mining, August 2021.
- Aurenne (2021b) Memo regarding *Jacksonia lanicarpa* P1. Aurenne Mining, October 2021.
- Bennelongia (2021) Mt Ida Gold Project Subterranean Fauna Desktop Assessment and Survey Report. Prepared for Aurenne Alt Resources Pty Ltd, by Bennelongia Environmental Consultants, June 2021.
- BoM (2022) Bureau of Meteorology Website – Climate Data Online, Menzies. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 5 January 2022).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DBCA (2017) Fauna profiles - Chuditch *Dasyurus geoffroi*. Department of Biodiversity, Conservation and Attractions, Western Australia.
- DBCA (2022) Advice received in relation to Clearing Permit Application CPS 9383/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, February 2022.
- DPLH (2022) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 4 January 2022).
- GLS (2019) Flora and Vegetation Survey of the Tim's Find Project. Prepared for Alt Resources by Goldfields Landcare Services, July 2019.
- 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, Perth. <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.
- NVS (2019) Detailed Flora and Vegetation Survey of Tims Find, Part 2 – October 2019. Prepared for Alt Resources Pty Ltd, by Native Vegetation Solutions, December 2019.
- NVS (2020) Reconnaissance Flora and Vegetation Survey of Bottle Creek – October 2019. Prepared for Alt Resources Pty Ltd, by Native Vegetation Solutions, April 2020.
- Phoenix (2021) Flora, vegetation and terrestrial fauna surveys for the Mt Ida Gold Project. Prepared for Aurenne Mining, by Phoenix Environmental Sciences, July 2021.
- Pringle, H.J.R., Van Vreeswyk, A.M.E. and Gilligan, S.A. (1994) An inventory and condition survey of rangelands in the northeastern Goldfields, Western Australia. Technical Bulletin No. 87. Department of Agriculture, South Perth, Western Australia.

Terrestrial Ecosystems (2019a) Level 1 Vertebrate Fauna Risk Assessment for Bottle Creek. Prepared for Alt Resources Pty Ltd, by Terrestrial Ecosystems, November 2019.

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5. 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)
DAWE	Department of Agriculture, Water and the Environment, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DoEE	Department of the Environment and Energy (now DAWE)
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> (Federal 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:

{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.