



Clearing Permit Decision Report

1. Application details and outcome

1.1. Permit application details

Permit number:	9383/3
Permit type:	Purpose Permit
Applicant name:	Aurenne MIT Pty Ltd
Application received:	22 May 2023
Application area:	1,000 hectares
Purpose of clearing:	Mineral exploration, mineral production, and associated activities
Method of clearing:	Mechanical Removal
Tenure:	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, 29/31, 29/32 Mining Leases 29/150, 29/151, 29/421 Miscellaneous Licences 29/137, 29/139, 29/145, 29/153, 29/154, 29/157, 29/158, 29/159, 29/160, 29/161, 29/168, 29/169, 29/170
Location (LGA area/s):	Shire of Menzies
Colloquial name:	Mt Ida Gold Project

1.2. Description of clearing activities

Aurenne MIT Pty Ltd proposes to clear up to 1,000 hectares of native vegetation within a boundary of approximately 16,459 hectares, for the purpose of mineral exploration, mineral production, and associated activities. The project is located approximately 72 kilometres northwest of Menzies, within the Shire of Menzies.

Clearing permit CPS 9383/1 was granted by the Department of Mines, Industry Regulation and Safety on 4 February 2022 and was valid from 1 March 2022 to 28 February 2027. The permit authorised the clearing of up to 1,000 hectares of native vegetation within a boundary of approximately 18,442 hectares, for the purpose of mineral exploration, mineral production, and associated activities.

CPS 9383/2 was granted on 14 June 2022, amending the permit to add tenure to the permit and amend Condition nine. The tenure being added to the permit was wholly contained within the permit boundary of CPS 9383/1.

On 22 May 2023, the Permit Holder applied to amend CPS 9383/2 to amend Condition 9 of the clearing permit, and to add tenure to the clearing permit. The tenure being added to the permit is wholly contained within the permit boundary of CPS 9383/2.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	21 November 2023
Decision area:	1,000 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51KA(1) of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Mines, Industry Regulation and Safety (DMIRS) on 22 May 2023. DMIRS advertised the application for 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, relevant datasets, supporting information provided by the applicant including the results of a flora survey, the clearing principles set out in Schedule 5 of the EP Act, and any other matters considered relevant to the assessment. The assessment identified

that the proposed amendment is not likely to have a significant impact on habitat for flora, fauna and ecological communities, and/or conservation areas.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures, the Delegated Officer determined that the proposed clearing is not likely to lead to an unacceptable risk to the environment. The Delegated Officer decided to grant a clearing permit with staged clearing, watercourse management, and flora management conditions.

2. Assessment of application

2.1. Avoidance and mitigation measures

The applicant has advised that all clearing associated with the Mt Ida Gold Project has sought to avoid where possible, Priority flora and has been revised to ensure the smallest clearing footprint is utilised. Additionally, the locations of structures have been moved to avoid populations of Priority flora (Aurenne, 2023b). The applicant initially applied to amend Condition 9 of the clearing permit to be able to clear up to 3,000 individuals of *Jacksonia lanicarpa*. However, the Environmental Officer requested that impacts to *J. lanicarpa* be reduced to avoid significant impacts to Priority flora. The proponent accepted to reduce the proposed impact to *J. lanicarpa* to 1,400 individuals, for a total of 2,400 individuals.

The applicant adequately demonstrated that reasonable efforts had been taken to avoid and minimise potential impacts of the clearing on environmental values.

2.2. Assessment of impacts on environmental values

Condition 9 of clearing permit CPS 9383/2 authorises that no more than 1,000 individuals of *Jacksonia lanicarpa* are to be cleared. The applicant has advised that due to an oversight, a total of 1,028 individuals of *J. lanicarpa* have been cleared under CPS 9383/2 (Aurenne, 2023c). The Permit Holder has requested to amend condition 9 to allow no more than 2,400 individuals of *J. lanicarpa* to be cleared. Up until 30 June 2023, a total of 291.432 hectares have been cleared in the application area under CPS 9383/2 (Aurenne, 2023a).

The initial survey recorded four individuals of *Jacksonia lanicarpa* within the application area (Phoenix, 2021). A subsequent targeted survey undertaken in May 2021 recorded 1,198 individuals of *J. lanicarpa* (Clarke, 2021). A subsequent survey in 2022 recorded 9,569 individuals, bringing the total population of *J. lanicarpa* to 10,771 individuals (Clarke, 2022). The latest targeted *J. lanicarpa* flora survey was undertaken from 7 to 13 September 2022, which recorded 14,574 individuals of *J. lanicarpa* at a wider regional scale (Morgan, 2023). Considering that 1,028 individuals have been cleared, the total amount of *J. lanicarpa* individuals recorded in the local area is of 24,317. Out of all the recorded individuals, 12,584 are located within the application area. The rest of the records are located outside of the application area (see Figure 1 on Appendix C).

DBCA (2022) advised that this subpopulation of *Jacksonia lanicarpa* is the largest known subpopulation and represents the most south-eastern extent of the species range, which is considered significant. The initial proposed disturbance of an additional 3,000 individuals of this *J. lanicarpa* population was considered to represent a significant local and regional impact to this Priority 1 species (DBCA, 2023). The proponent then reduced the proposed clearing to 1,400 individuals and indicated that they intend to conduct more surveys in the local area.

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 (DMIRS, 2022).

The assessment against the ten clearing principles identified that the native vegetation proposed to be cleared is likely to provide habitat for conservation significant fauna. There were five fauna habitats identified across the application area (Phoenix, 2021). The habitats found within the application area are well represented in the local region. The application area does not contain or form a part of a Threatened or Priority Ecological Community (GIS Database). There are no permanent watercourses within the application area, however, there are several ephemeral watercourses that intersect the application area (GIS Database). At the bioregion (Murchison) scale, over 99 per cent of the pre-European vegetation extent remains (Government of Western Australia, 2019). The nearest conservation area is located over 42 kilometres northwest of the application area and the proposed clearing is not likely to impact on the environmental values of this area (GIS Database). The proposed clearing is not likely to impact surface water quality, groundwater quality or lead to increase in flooding.

The proposed clearing for the purpose of mineral exploration, mineral production, and associated activities may cause land degradation and may be at variance with principle (g). Potential land degradation impacts may be minimised by the imposition of a staged clearing condition.

Noting that the application comprises of vegetation associated with an ephemeral watercourse the proposed clearing is at variance to principle (f). Potential impacts to vegetation growing in association with watercourses may be minimised by the implementation of a watercourse management condition.

Based on the above, the proposed clearing is at variance to principle (a) and (f), may be at variance to principle (g), is not at variance with principle (e) and is not likely to be at variance with the remaining clearing principles.

The increase in authorised clearing of Priority 1 species *Jacksonia lanicarpa* from 1,000 to 2,400 individuals within the existing permit boundary is unlikely to result any significant change to the environmental impacts of the proposed clearing. Any subsequent requests to increase the amount of *J. lanicarpa* allowed to be cleared should be supported by targeted surveys and further DBCA advice.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision report CPS 9383/2.

2.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 27 June 2023 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are no native title claims over the area under application (DPLH, 2023). 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 Cultural Heritage Sites within the application area (DPLH, 2023). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Cultural Heritage Sites are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

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

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

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by native vegetation, salt lakes and the landscape of the Murchison bioregion (GIS Database).
Ecological linkage	Aerial imagery shows that the application area does not form part of any formal or informal ecological linkages (GIS Database).
Conservation areas	The application area is not located within any known or mapped conservation areas. The closest mapped conservation area is the former Bulga Downs Pastoral Lease which is located approximately 55 kilometres northwest of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 18: Low woodland; mulga (<i>Acacia aneura</i>); 39: Shrublands; mulga scrub; 251: Low woodland; mulga & <i>Allocasuarina cristata</i> ; 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 (NVS, 2019; Phoenix, 2021):

Characteristic	Details
	<p>AcAeEm - Low woodland of <i>Acacia caesaneura</i>, <i>A. pteraneura</i>, and occasionally <i>Eucalyptus lesouefii</i>, over tall sparse to open shrubland of <i>A. effusifolia</i>, <i>Grevillea extorris</i>, and occasionally <i>A. burkittii</i>, over mid sparse to open shrubland of <i>Eremophila metallicorum</i>, <i>Sida</i> sp. Golden calyces glabrous (H.N. Foote 32), and <i>Cryptandra connata</i>;</p> <p>AcArlAt/AcPbb - Low woodland to open forest of <i>Acacia caesaneura</i> and occasionally <i>A. mulganeura</i>, over tall sparse to open shrubland of <i>A. ramulosa</i> var. <i>linophylla</i>, over sparse shrubland of <i>A. tetragonophylla</i>, <i>Cryptandra connata</i>, and variably present stands of <i>Eremophila forrestii</i> subsp. <i>forrestii</i>;</p> <p>AdDI - Tall sparse shrubland of <i>Acacia duriuscula</i> with variably present <i>Brachychiton gregorii</i> and <i>Casuarina pauper</i>, over mid sparse shrubland of <i>Dodonaea lobulata</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i>, and <i>Scaevola spinescens</i>;</p> <p>EsAdEs - Low woodland of <i>Eucalyptus salubris</i> and occasionally <i>E. lesouefii</i>, over tall sparse shrubland of <i>Acacia duriuscula</i> over mid sparse shrubland of <i>Eremophila scoparia</i>, <i>E. oppositifolia</i> var. <i>angustifolia</i>, and <i>Scaevola spinescens</i>;</p> <p>Ph - Low open shrubland of <i>Ptilotus helichrysoides</i> and <i>Frankenia irregularis</i>.</p> <p>Mulga Shrubland - Open Shrub Mallee of <i>Acacia aneura</i>, <i>A. mulganeura</i> and <i>A. caesaneura</i> over <i>A. tetragonophylla</i>, <i>Dodonaea rigida</i>, <i>Cryptandra distigma</i>, and <i>Eremophila latrobei</i> subsp. <i>latrobei</i> over <i>Cryptandra connata</i>, <i>E. homoplastica</i>, <i>E. metallicorum</i>, <i>Ptilotus obovatus</i> and <i>Sida</i> sp. dark green fruits.</p> <p>Mulga over rocky Ironstone outcrop - Open Shrub Mallee of <i>Acacia caesaneura</i>, <i>A. quadrimarginea</i>, <i>Acacia grasbyi</i>, <i>A. ramulosa</i> subsp. <i>ramulosa</i> and <i>A. aneura</i> over <i>Dodonaea rigida</i>, <i>D. viscosa</i> subsp. <i>spatulata</i>, <i>Philotheca brucei</i> subsp. <i>brucei</i> and <i>Hybanthus floribundus</i> subsp. <i>curvifolius</i> over <i>Eremophila metallicorum</i>, <i>Olearia stuartii</i>, <i>Ptilotus obovatus</i>, <i>Calytrix erosipetala</i> and <i>Atriplex bunburyana</i>.</p> <p>Drainage line - Shrub Mallee of <i>Acacia caesaneura</i>, <i>A. aneura</i> with occasional <i>Eucalyptus lucasii</i> and <i>E. oleosa</i> subsp. <i>oleosa</i> over <i>A. tetragonophylla</i>, <i>Santalum spicatum</i> and <i>A. burkittii</i> over, <i>Enchylaena tomentosa</i> var. <i>tomentosa</i>, <i>Ptilotus obovatus</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> and <i>Sida</i> sp. dark green fruits.</p> <p>Eucalyptus oleosa over Mulga over Eremophila pantonii - Tree Mallee of <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> over <i>Acacia aneura</i>, <i>A. caesaneura</i>, <i>A. burkittii</i> and <i>A. pteraneura</i> over <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Ptilotus obovatus</i>, <i>Eremophila pantonii</i> and <i>Atriplex bunburyana</i>.</p> <p>Eucalyptus clelandiorum over Eremophila pantonii over Ptilotus obovatus - Low Woodland A of <i>Eucalyptus clelandiorum</i> over <i>Eremophila pantonii</i>, <i>E. scoparia</i> and <i>E. oldfieldii</i> subsp. <i>angustifolia</i> over <i>Ptilotus obovatus</i>, <i>Maireana sedifolia</i>, <i>Acacia erinacea</i>, <i>Senna artemisioides</i> subsp. <i>filifolia</i> and <i>Atriplex vesicaria</i>.</p> <p>Frankenia shrubland - Dwarf Scrub D of <i>Frankenia sessilis</i>, <i>Maireana georgei</i> and <i>Ptilotus obovatus</i> with occasional overstorey of <i>Acacia mulganeura</i>, <i>A. tetragonophylla</i> and <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>.</p> <p>Mulga over Chenopod Shrubland - Open Scrub of <i>Acacia aneura</i>, <i>A. mulganeura</i> and <i>A. caesaneura</i> over <i>Senna artemisioides</i> subsp. <i>filifolia</i> over <i>Maireana sedifolia</i>, <i>Atriplex bunburyana</i> and <i>Ptilotus obovatus</i>.</p>
Vegetation condition	<p>The vegetation survey (GLS, 2019; NVS, 2019; 2020; Phoenix, 2021) and aerial imagery indicate the vegetation within the proposed clearing area is in Very Good to Completely Degraded (Trudgen, 1991) condition.</p> <p>The full Trudgen (1991) condition rating scale is provided in Appendix B.</p>
Climate and landform	<p>The application area is located within an arid zone with an average annual rainfall (Menzies station) of 254 millimetres (BoM, 2023).</p>
Soil description	<p>The soil within the application area is mapped as soil units BB5, BE6, and a small corner of the southern portion of the application area falls within soil unit AB7 (GIS Database). These soil units are described as follow by Northcote et al. (1960-68):</p> <p>AB7: Similar to unit AB6 but with pediments and breakaways of unit BE3 on ridges and slopes above the plains in a recurring pattern.</p> <p>BB5: Rocky ranges and hills of greenstones--basic igneous rocks: chief soils seem to be shallow calcareous loamy soils and similar soils, with shallow brown and grey-brown calcareous earths</p>

Characteristic	Details
	<p>below which weathered rock occurs at shallow depths. Associated soils are not described but may include alkaline red earths.</p> <p>BE6: Extensive flat and gently sloping plains, which sometimes have a surface cover of gravels and on which redbrown hardpan frequently outcrops: chief soils are shallow earthy loams.</p>
Land systems and erosion risk	<p>The application area falls within the following land systems (DPIRD, 2023; Pringle et al., 1994):</p> <p>Bevon land system: Irregular low ironstone hills with stony lower slopes supporting mulga shrublands. Minor areas with texture contrast soils on breakaway footslopes and narrow drainage tracts are susceptible to soil erosion, particularly if perennial shrub cover is substantially reduced or the soil surface is disturbed.</p> <p>Brooking land system: Prominent ridges of banded iron formation, supporting mulga shrublands; occasional minor halophytic communities in the southeast. Stone mantles provide effective protection against soil erosion. Disturbance or removal of stone mantles may initiate soil erosion.</p> <p>Gransal land system: Stony plains and low rises on granite, supporting mainly halophytic shrublands. Breakaway footslopes and alluvial plains are respectively highly and moderately susceptible to water erosion in areas where perennial shrub cover is substantially reduced. Disturbance of soil surface on these units and on saline stony plains is also likely to initiate soil erosion.</p> <p>Graves land system: Basalt and greenstone rises and low hills, supporting eucalypt woodlands with prominent saltbush and bluebush understoreys. Alluvial plains are susceptible to water erosion where perennial shrub cover is substantially reduced or the soil surface is disturbed.</p> <p>Laverton land system: Greenstone hills and ridges with acacia shrublands. Stone mantles protect most of this land system against soil erosion, the exception being narrow drainage tracts, which are mildly susceptible to water erosion.</p> <p>Leonora land system: Low greenstone hills and stony plains, supporting mixed stony chenopod shrublands. Drainage tracts are highly susceptible to water erosion, particularly in areas where perennial shrub cover has been substantially reduced or the soil surface is disturbed. Stony lower footslopes rely on mantles for soil protection against erosion.</p> <p>Mulline land system: Greenstone hills supporting eucalypt and black oak woodlands and mulga shrublands. Narrow drainage tracts and alluvial plains are susceptible to water erosion, particularly where perennial shrub cover is substantially reduced or the soil surface is disturbed.</p> <p>Nubev land system: Gently undulating stony plains, minor limonitic low rises and drainage floors, supporting mulga and halophytic shrublands. Drainage zones are moderately susceptible to soil erosion, particularly where perennial shrub cover is substantially reduced or the soil surface is disturbed. Disturbance of the protective stone mantle on saline stony plains is also likely to initiate water erosion.</p> <p>Rainbow land system: Hardpan plains supporting mulga shrublands. This system is generally not susceptible to soil erosion. Impedance of sheet flow can initiate soil erosion and cause water starvation and consequent loss of vigour in vegetation downslope.</p> <p>Sherwood land system: Granite breakaways and extensive stony granitic plains, with mulga shrublands and minor halophytic shrublands. Lower footslopes, alluvial plains and drainage tracts generally have fragile soils which are highly susceptible to water erosion. These areas require particularly sensitive management to avoid irreversible land degradation.</p> <p>Wyarri land system: Granite domes, hills and tor fields with gritty-surfaced fringing plains supporting mulga and granite wattle shrub lands. This land system is generally not susceptible to soil erosion, partly as a consequence of heavy, protective soil mantles.</p>
Waterbodies	The desktop assessment and aerial imagery indicated that several, non-perennial watercourses transect the area proposed to be cleared (GIS Database).
Hydrogeography	The application area falls within the Goldfields Groundwater Area which is legislated by the <i>R/VI Act 1914</i> . The mapped groundwater salinity is 1,000-3,000 milligrams per litre total dissolved solids which is described as marginal (GIS Database).
Flora	Priority 1 flora species <i>Jacksonia lanicarpa</i> is present in the application area (Phoenix 2021). Available databases show historical records of two more Priority flora species within the application area (GIS Database). There are no records of Threatened flora within the application area (GIS Database).

Characteristic	Details
Ecological communities	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 200 metres west of the application area (GIS Database).
Fauna	The Malleefowl and Long-tailed Dunnart were recorded within the application area (Phoenix, 2021; Terrestrial Ecosystems, 2019a; 2019b).

Appendix B. Condition rating

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 Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix C. Location of Priority flora

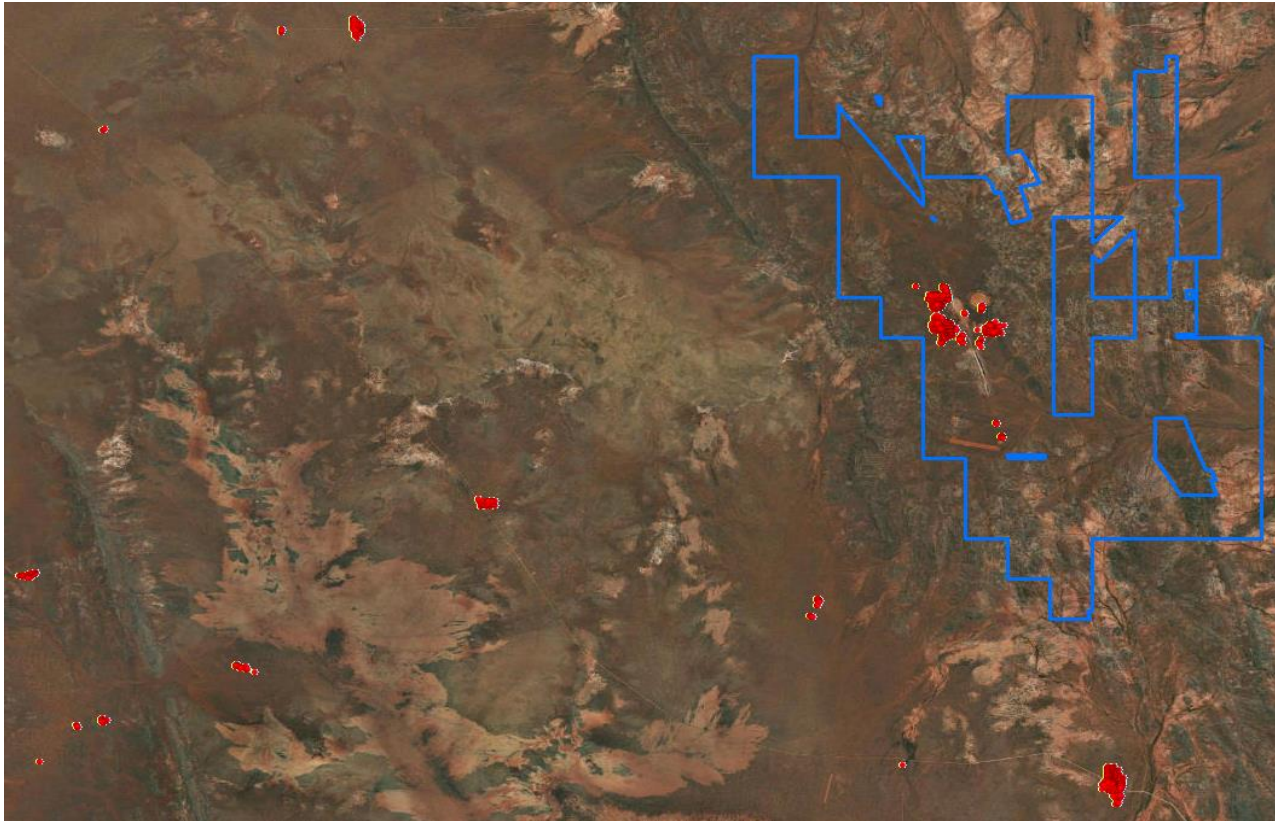


Figure 1. Red dots indicate recorded locations of *Jacksonia lanicarpa* in relation to the application area outlined in blue (Clarke, 2022; Morgan, 2023; Phoenix, 2021).

Appendix D. References and databases

1. GIS datasets

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

- Aboriginal Heritage Places (DPLH-001)
- Cadastre Address (LGATE-002)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- IBRA Vegetation Statistics
- Regional Parks (DBCA-026)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

2. References

Aurenne (2023a) Aurenne Mining Mt Ida Gold Project Annual Clearing Permit Report CPS 9383/2 July 1 2022 - June 30 2023, August 2023.

Aurenne (2023b) Clearing permit application form, CPS 9383/3, received 22 May 2023.

Aurenne (2023c) CPS 9383/2 Mt Ida Gold Project – Request for Amendment. Letter prepared for the Department of Mines, Industry Regulation and Safety by Aurenne MIT Pty Ltd, received 22 May 2023.

Bureau of Meteorology (BoM) (2023) Bureau of Meteorology Website – Climate Data Online, Weather Station. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 16 August 2023).

- Clarke, V. (2021) Memo to DBCA - *Jacksonia lanicarpa* P1. Prepared by Vanessa Clarke from Aurene Group Mining, October 2021.
- Clarke, V. (2022) Memo to DBCA - *Jacksonia lanicarpa* P1. Prepared by Vanessa Clarke from Aurene Group Mining, March 2022.
- Department of Biodiversity, Conservation and Attractions (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.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023) Advice received in relation to Clearing Permit Application CPS 9393/3. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, September 2023.
- Department of Planning, Lands and Heritage (DPLH) (2023) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 15 August 2023).
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- 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. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- NVS (2019) Detailed Flora and Vegetation Survey of Tims Find Part 2 – October 2019. Prepared for ALT Resources by Native Vegetation Solutions, December 2019.
- NVS (2020) Reconnaissance Flora and Vegetation Survey of Bottle Creek – October 2019. Prepared for ALT Resources by Native Vegetation Solutions, April 2020.
- Morgan B. (2023) *Jacksonia lanicarpa* (Priority 1) regional search. Memo prepared by Brian Morgan, for Aurene Mt Ida PL, March 2023
- Phoenix (2021) Flora, vegetation and terrestrial fauna surveys for the Mt Ida Gold Project. Prepared for Aurene Mining, by Phoenix Environmental Science Pty Ltd, July 2021.
- Pringle, H J, Gilligan, S A, and van Vreeswyk, A M. (1994), *An inventory and condition survey of rangelands in the north-eastern Goldfields, Western Australia*. Department of Primary Industries and Regional Development, Western Australia, Perth. Technical Bulletin 87.
- Terrestrial Ecosystems (2019a) Level 1 Vertebrate Fauna Risk Assessment for Tims Find. Prepared for Alt Resources Pty Ltd by Terrestrial Ecosystems, November 2019.
- Terrestrial Ecosystems (2019b) Level 1 Vertebrate Fauna Risk Assessment for Bottle Creek. Prepared for Alt Resources Pty Ltd by Terrestrial Ecosystems, November 2019.
- Trudgen, M.E. (1991) Vegetation condition scale in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

3. 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.

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.