Department of Mines, Petroleum and Exploration

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	8882/2
Permit type:	Purpose Permit
Applicant name:	Carnegie Gold Pty Ltd
Application received:	12 February 2025
Application area:	221 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 30/255
Location (LGA area):	Shire of Menzies
Colloquial name:	Waihi Gold Project

1.2. Description of clearing activities

Carnegie Gold Pty Ltd proposes to clear up to 221 hectares of native vegetation within a boundary of approximately 229.9 hectares, for the purpose of mineral production and associated activities (Carnegie Gold Pty Ltd, 2025). The project is located approximately 51 kilometres southwest of Menzies, within the Shire of Menzies (GIS Database). No clearing has been reported under this clearing permit to date (Carnegie Gold Pty Ltd, 2024).

Clearing permit CPS 8882/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 18 June 2020 and was valid from 11 July 2020 to 10 July 2025. The permit authorised the clearing of up to 221 hectares of native vegetation within a boundary of approximately 229.9 hectares, for the purpose of mineral production and associated activities.

On 12 February 2025, the permit holder applied to amend CPS 8882/1 to extend the permit duration to 10 July 2030. The area of clearing authorised and the permit boundaries remained unchanged.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	10 July 2025
Decision area:	221 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS), now Department of Mines, Petroleum and Exploration (DMPE), advertised the application for a public comment for a period of 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

The 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;
- potential impacts to ephemeral drainage lines, and consequently on surface water flow;
- the loss of native vegetation that is suitable habitat for malleefowl (*Leipoa ocellata*, VU);
- potential impact to arid bronze azure butterfly (*Ogyris petrina*,CR*l*);
- potential impact to inland hairstreak butterfly (*Jalmenus aridus*, P1); and
- land degradation in the form of soil 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;
- commence construction no later than six months after undertaking clearing to reduce the risk of erosion;
- watercourse management to avoid riparian vegetation and maintain existing water flow;
- a fauna management (malleefowl) condition requiring areas proposed to be cleared between 1 September and 31 January are inspected to identify active (in use) malleefowl mounds, and to maintain a 200 metre buffer around identified active mounds and inactive;
- a fauna management (ABAB) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat, ant colonies and ABAB individuals and no clearing within 100 metres of ant colonies; and
- a fauna management (inland hairstreak butterfly) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat and inland hairstreak individuals, and no clearing within 50 metres of inland hairstreak butterfly host plants.

The assessment has not changed since the assessment for CPS 8882/1, except in the case of principle (a), principle (b), and principle (h) that have considered recently updated information on species, guidance documents and records:

- arid bronze azure butterfly listed as Critically Endangered under the *Biodiversity Conservation Act 2016* and the *Environmental Protection and Biodiversity Conservation Act 1999* considered under principle (a) and principle (b);
- the inland hairstreak butterfly is listed as Priority One under the Department of Biodiversity, Conservation and Attractions Priority Fauna list considered under principle (a) and principle (b);
- the Credo Nature Reserve System addition considered under principle (h); and

The Delegated Officer determined that the proposed extension of the duration of the permit is not likely to lead to an unacceptable risk to environmental values and can be managed by the permit conditions and avoidance and mitigation measures in place.

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)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)
- Guideline for the survey of arid bronze azure butterfly (ABAB) in Western Australia (DBCA, 2020)
- Survey guidelines for Australia's threatened birds (DEWHA, 2017)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values. The applicant stated avoidance and mitigation measures, fauna management, weed control and watercourse management conditions placed on the original permit (CPS 8882/1) (Carnegie Gold Pty Ltd, 2025).

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed significantly from the clearing permit decision report CPS 8882/1, however updated information on fauna species has been incorporated into this assessment.

3.2.1. Biological values (fauna) - Clearing Principle (b)

Assessment

From the 9 to 11 December 2019, Biostat conducted a fauna habitat assessment over the entirety of the application area excluding the proposed haul and access roads located on the east, west and south of the application area (Biostat, 2020). The assessment was conducted in dry warm conditions excluding a thunderstorm and rain that occurred on the 11 December 2019 (Biostat, 2020). No new fauna surveys have been conducted over the application area since 2019.

Arid bronze azure and Inland hairstreak butterflies
The arid bronze azure butterfly (ABAB) (*Ogyris petrina*, CR) occurs in mature mixed gimlet (*Eucalyptus salubris*) and salmon gum (*E. salmonophloia*) woodlands, with an open understory (DBCA, 2020). ABAB can also occur in areas with wandoo (*E. capilosa* subsp. wandoo), smooth-barked York gum (*E. loxophleba* subsp*. lissophloia*) and ribbon-barked mallee (*E. sheathiana*) (DBCA, 2020). Extant ABAB populations have been recorded on soil types ranging from loamy to sandy, however there is a lack of knowledge about soil types that best support ABAB populations (WABSI, 2022). Mixed salmon gum and gimlet open woodlands, with yellowish red to red clay loams have been recorded within the application area (JBBC, 2019; Biostat, 2020) and could potentially contain suitable habitat to host ABAB populations. ABAB has an obligate association with the sugar ant *Camponotus* sp. nr. *terebrans.* (DBCA, 2020). While surveys did not previously consider ABAB, the species information and guidelines has been updated since the last fauna survey that was conducted over the application area.

The inland hairstreak (*Jalmenus aridus*, P2) preferred habitat is open woodlands with a mixture of young and mature *Senna artemisioides* ssp. *flifolia* shrubs, a variety of flowering shrubs (*Eremophila, Scaveola*, and *Maireana*), some scattered taller vegetation and open areas of exposed, well-drained ground adjoining *Senna* hostplants (Eastwood et al., 2023). The original inland hairstreak record was discovered on an *Acacia tetragonophylla* tree, which are present within the application area (Eastwood *et al*., 2023). The application area contains open woodlands with tall vegetation, sparse shrublands and isolated low shrubs of *Senna artemisioides* ssp*. flifolia*, *Eremophila* and *Maireana* spp., (JBBC, 2019), which could potentially provide suitable habitat to host inland hairstreak butterfly populations. The inland hairstreak has an obligate association with the ant *Froggattella kirbii* (Eastwood et al., 2023). While surveys did not previously consider for the inland hairstreak butterfly, information on this species (Eastwood *et al.*, 2023) has been updated since the last fauna survey that was conducted over the application area.

Malleefowl
The application area is highly likely to contain malleefowl (*Leipoa ocellata*, VU) due to the presence of suitable habitat, however no evidence of malleefowl was recorded within the application area (Biostat, 2020; JBBC, 2019).

Peregrine Falcon
The peregrine falcon (*Falco peregrinus,* OS) is widespread throughout much of Australia, with its preferred habitat being coastal and inland cliffs, or open woodlands near waterbodies and watercourses (Australian Museum, 2019). This species nests in recesses of cliff faces, tree hollows or in abandoned nests of other large bird species (Australian Museum, 2019). There is one record of the Peregrine Falcon approximately 13.6 kilometres northwest of the application area (GIS Database). The application area does not contain any open woodlands near waterbodies, cliffs or permanent waterbodies that are suitable habitat for the peregrine falcon. The application are does contain ephemeral watercourses however these are unlikely to support the peregrine falcon, additionally there is more suitable habitat adjacent to the application area.

Conclusion

Arid bronze azure and inland hairstreak butterflies

There is potential for this species to occur within the application area as there is suitable vegetation and habitat. It is unknown if obligate associate ant species is present within the application area.

Malleefowl

There is a high potential for malleefowl to occur within the application area due to suitable foraging and breeding habitat within the application area.

Peregrine falcon

There is potential for this species to utilise the area as a transient visitor, however the proposed clearing is unlikely to impact this species as there are no permanent watercourses or suitable breeding habitat within the application area.

Conditions

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

- a fauna management (ABAB) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat, ant colonies and ABAB individuals and no clearing within 100 metres of ant colonies;
- a fauna management (inland hairstreak butterfly) condition requiring areas proposed to be cleared to be surveyed to identify potential critical habitat and inland hairstreak individuals, and no clearing within 50 metres of inland hairstreak butterfly host plants;
- amend malleefowl condition (Condition 9) to include no clearing within 200 metres of active (in use) malleefowl mounds; and
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity

3.3. Relevant planning instruments and other matters

The amendment application was advertised on 7 March 2025 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim over the area under application (DPLH, 2025). This claim has been registered with the National Native Title Tribunal (WC2017/007) and determined by the Federal Court (WAD647/2017) on behalf of the claimant group (Marlinyu Ghoorlie). However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2025). 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 arid bronze azure butterfly, which are a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Federal) Department of Climate Change, 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 and the Environment for further information regarding notification and referral responsibilities under the EPBC Act.

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.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia (GIS Database). It is located within the Great Western Woodlands and is surrounded by other mining operations and nature reserves (GIS Database). The predominant land use in the region is UCL and Crown reserves, grazing-native pastures-leasehold /freehold, conservation and mining leases (CALM, 2002).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).
Conservation areas	The application area is approximately 745 metres from the Credo Nature Reserve System (GIS Database).
Vegetation description	The application area occurs within the IBRA Coolgardie bioregion in the Eastern Goldfields subregion (COO3) (GIS Database). The vegetation of the application area is broadly mapped as the following Beard vegetation associations: • **Kununulling 468:** Woodland other, Goldfields; gimlet, redwood etc. *Eucalyptus. salubris*, *E. oleosa*; and • **Kununulling 40**: Scrub, open scrub or sparse scrub, wattle, teatree & other species *Acacia* spp. *Melaleuca* spp. (GIS Database). A flora and vegetation survey was conducted over the application area by Jenny Borger Botanical Consulting during October, 2019. The following vegetation associations were recorded within the application area (JBBC, 2019): • **VT1:** *Eucalyptus salmonophloia*, *Eucalyptus* species open woodland / chenopods; • **VT2:** *Eucalyptus loxophleba / Acacia burkittii* tall shrubland; • **VT3:** *Eucalyptus salubris* woodland/ chenopod shrubs; • **VT4:** *Acacia caesaneura, Acacia fuscaneura, Acacia burkittii* tall shrubland; • **VT5:** *Eremophila maculata, Frankenia setosa* low sparse shrubland; • **VT6:** *Eucalyptus* species open woodland / *Eremophila, Acacia* shrubs; and • **VT7:** *Acacia incurvaneura, Acacia ramulosa* tall open shrubland.
Vegetation condition	The vegetation survey (JBBC, 2019) indicates the vegetation within the proposed clearing area is in Excellent to Completely degraded condition (Keighery, 1994). As the proposed clearing is located within the Eremaean Botanical Province, these condition ratings have been converted to the Trudgen (1991) condition rating scale (GIS Database). Vegetation within the proposed clearing area is in Very good to Completely degraded condition, described as • **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. to • **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. The full Trudgen (1991) condition rating scale is provided in Appendix C.
Climate and landform	The climate for the Eastern Goldfields subregion is arid to semi-arid, with an average annual rainfall of 200-300 millimetres occurring primarily in winter (CALM, 2002). The nearest weather station is Menzies, approximately 52 kilometres north-east of the application area, with an average rainfall of approximately 252.2 millimetres per year (BoM, 2025). The application area is mapped within elevation areas of 450 to 470 meters Australian height datum (GIS Database).
Soil description	The soil is mapped as a part of the following land systems (DPIRD, 2020; DPIRD, 2025; Pringle, 1994; GIS Database): • **Gumland System:** The Gumland system ranges from depositional surfaces with broad shallow valley plains, typically receiving flow from greenstone hills. Higher loamy plains and restricted areas of slightly more elevated stony surfaces and plains with fine gravelly ironstone mantles and central drainage tracts. Soils of the Gumland system are dominated by calcareous loamy earths and red deep duplex soils or shallow duplex greenstone. • **Illaara System:** The Illaara system is dominated by gently undulating plains and occasional low rises with ironstone gravel mantles, slightly lower level to gently undulating plains with calcrete rubbles. The Illaara land system is dominated by deep red earth or red sand with a ferruginous lag.

Characteristic	Details
	• **Helag System:** Hardpan plains and central drainage tracts with mulga shrublands and minor chenopod shrublands, saltbush/bluebush shrublands on drainage tracts. The application area is described as red loamy earth (Soil Group 544) (GIS Database).
Land degradation risk	Red loamy earths may be susceptible to water erosion on steeper slopes (Schoknecht and Pathan, 2013). The alluvial plains of the Gumland system are susceptible to soil erosion if the perennial shrub cover is removed, as are the stony plains if the protective mantle is disturbed (DPIRD, 2020). The Illaara system is not generally susceptible to soil erosion (DPIRD, 2020). Hardpan plains and central drainage tracts are prone to soil erosion (Pringle, 1994).
Waterbodies	The desktop assessment and aerial imagery indicated that there is multiple ephemeral drainage lines within the area proposed to be cleared, there is one mapped minor, non-perennial watercourse that transects the area proposed to be cleared (JBBC, 2019; GIS Database). There are no permanent waterbodies or major watercourses that intersect the application area (GIS Database).
Hydrogeography	The application area is located within the Goldfields Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (GIS Database). The nearest Public Drinking Water source is Menzies Water Reserve approximately 50 kilometres northeast of the application area (GIS Database). There are no Wetlands of International Importance or Nationally Important Wetlands that occur within the application area or in the local surrounds (20 kilometres) (GIS Database). The closest Nationally Important Wetland is Rowles Lagoon System approximately 43 kilometres southeast of the application area (GIS Database). The mapped groundwater salinity is between approximately 14,000 to 35,000 milligrams per litre total dissolved solids which is described as saline (GIS Database).
Flora	There are no threatened flora species within the application area or local surrounds (20 kilometres). There are 13 priority species within the local surrounds (20 kilometres) (GIS Database).
Ecological communities	There are no Threatened Ecological Communities or Priority Ecological Communities within the application area or local surrounds (20 kilometres) (JBBC, 2019; GIS Database).
Fauna	There are two fauna species of conservation significance mapped within the local surrounds (20 kilometres) and two conservation significant invertebrates that occur within the Coolgardie bioregion (GIS Database).
Fauna habitat	Three broad fauna habitats were identified within the application area, in addition to degraded habitat (Biostat, 2020). • *Acacia* shrubland; • *Eucalyptus*/ chenopod woodland; and • *Eucalyptus* woodland.

A.2. Flora analysis table

With consideration for the site characteristics set out above, 20-kilometre radius of relevant datasets (Appendix D.1), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Number of known records (total)	Distance of closest record to application area (km)
Ptilotus procumbens	P1	N	N	Y	5	16
Eucalyptus educta	P2	N	N	N	46	11
Calytrix hislopii	P3	N	Y	N	8	14
Grevillea georgeana	P3	N	N	N	66	12
Homalocalyx grandiflorus	P3	N	N	N	16	20
Hysterobaeckea ochropetala subsp. *cometes*	P1	N	N	Y	28	7
Menkea draboides	P3	N	N	Y	10	19
Notisia intonsa	P3	Y	Y	Y	29	18
Pterostylis virens	P3	N	N	N	17	14
Pterostylis xerampelina	P1	N	Y	N	15	15
Pterostylis elegantissima	P1	N	N	N	3	14
Goodenia berringbinensis	P4	Y	N	Y	32	16

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Number of known records (total)	Distance of closest record to application area (km)
Wurmbea murchisoniana	P4	N	N	N	36	16

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

A.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix D.1), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)
Arid Bronze Azure Butterfly (*Ogyris petrina*)	CR	Y	Y	110
Inland Hairstreak (*Jalmenus aridus*)	P2	Y	Y	33
Malleefowl (*Leipoa ocellata*)	VU	Y	Y	6
Peregrine falcon (*Falco peregrinus*)	OS	N	Y	14

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

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: A flora and vegetation survey was conducted over a broader survey area by Jenny Borger Botanical Consulting on the 30 October 2019 (JBBC, 2019). A total of 81 taxa from 23 families and 36 genera were recorded, of which native plants were 79 taxa from 22 families and 34 genera (JBBC, 2019). No threatened or priority species were identified within the application area (JBBC, 2019). *Notisia intonsa* was identified as highly likely to occur, this species occurs in a variety of habitats and is widespread, occurring across multiple IBRA bioregions (JBBC, 2019; WA Herbarium, 1998-). This species was not detected in the field survey likely due to large areas of suitable habitat being degraded. This species is unlikely to be impacted by the proposed clearing as majority of suitable habitat is degraded and species is widespread. *Thysanotus brachyantherus* was recorded adjacent to the application area, at the time of the survey it was listed as a Priority 2 species, however as of the 10 April 2024 this species has now been delisted (DBCA, 2025). Two weed species, *Carrichtera annua* and *Brassica tournefortii* were recorded during the flora survey (JBBC, 2019). Weeds have potential to outcompete native flora and reduce biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by maintaining the weed management condition. There are no Priority Ecological Communities (PEC) or Threatened Ecological Communities (TEC) recorded within the application area (JBBC, 2019; GIS Database).	Not likely to be at variance (as per CPS 8882/1)	No
Principle (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."* Assessment: The area proposed to be cleared contains potential habitat for the arid bronze azure butterfly (*Ogyris petrina*), inland hairstreak butterfly (*Jalmenus aridus*), malleefowl (*Leipoa ocellata*), and peregrine falcon (*Falco peregrinus*).	At variance (changed from CPS 8882/1)	Yes *Refer to Section 3.2.1, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: There are no known records of Threatened flora within the application area (GIS Database). The flora survey of the application area did not record any species of Threatened flora (JBBC, 2019).	Not likely to be at variance (as per CPS 8882/1)	No
Principle (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."* Assessment: There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (JBBC, 2019; GIS Database).	Not likely to be at variance (as per CPS 8882/1)	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (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."* Assessment: The extent of the mapped vegetation types is consistent with the national objectives and targets for biodiversity conservation in Australia Commonwealth of Australia (2001). The current extent of vegetation associations remaining (Government of Western Australia, 2019): **Kununlling 40:** 99.99% remaining **Kununlling 468:** 98.3% remaining The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (GIS Database).	Not at variance (as per CPS 8882/1)	No
Principle (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."* Assessment: Given the application area is surrounded by a Nature Reserve System (Credo Nature Reserve System), with the closest point being 700 metres away, the proposed clearing may have an impact on environmental values (GIS Database).	Not likely to be at variance (CPS 8882/1)	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: There are no permanent watercourses or wetlands within the application area (JBBC, 2019; GIS Database). There a multiple drainage lines within the application area (JBBC, 2019). Majority of the application area consists of lowland and washout areas of salmon gum (*Eucalyptus salmonophloia*) and gimlet (*Eucalyptus salubris*) woodlands over chenopods (Biostat, 2020). Vegetation type associated with the mapped non-perennial watercourse is *Eucalyptus loxophleba* and *Acacia burkittii* tall shrubland (JBBC, 2019; GIS Database). A number of vegetation types were described as occurring in association with drainage lines including VT1, VT2, VT3 and VT5. However, many of the drainage lines have been heavily disturbed, with significant areas being degraded (JBBC, 2019). Potential impacts on vegetation associated with watercourses can be minimised by maintaining the watercourse management condition.	At variance (as per CPS 8882/1)	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: Soils within the Gumland System and Helag system are susceptible to soil erosion, soils within the Illara system are generally not prone to soil erosion (DPIRD, 2020; Schoknecht, and Pathan, 2013). Noting the location of the application area, the proposed clearing is likely to have an appreciable impact on land degradation. Potential impacts to on land degradation can be minimised by maintaining the staged clearing condition.	May be at variance (as per CPS 8882/1)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (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."* Assessment: Given no permanent water courses, wetlands, or Public Drinking Water Sources Areas are recorded within the application area (GIS Database), the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance (as per CPS 8882/1)	No
Principle (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."* Assessment: The application area is flat to undulating valley plains and pediments (JBBC, 2019). Rainfall primarily occurs in winter, with an average annual rainfall of 252.2 mm (CALM, 2002; BoM, 2025). There are no permanent water courses or waterbodies within the application area (GIS Database). There are several drainage lines and washout areas within the application area (Biostat, 2020; JBBC, 2019). However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.	Not likely to be at variance (as per CPS 8882/1)	No

Appendix C. Vegetation condition rating scale

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

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

D.1. GIS databases

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

- Cadastre (Polygon) (LGATE-217)
- Clearing Instruments Activities (Areas Approved to Clear) (DWER-076)
- Clearing Instruments Conditions (Areas Subject to Conditions) (DWER-077)
- Clearing Instruments Proposals (Areas Applied to Clear) (DWER-075)
- 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)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments - Catchments (DWER-028)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Medium Scale Topo Contour (Line) (LGATE-015)
- Native Title (Determination) (LGATE-066)
- Native Title (NNTT) (LGATE-004)
- Schedule of Native Title Determination Applications (NNT)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- Regional Parks (DBCA-026)
- Reserves (LGATE-227)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Soil Landscape Mapping - Rangelands (DPIRD-063)
- Soil Landscape Mapping - Systems (DPIRD-064)
- Soil Landscape Mapping - Western Australia attributed by WA Soil Group (DPIRD-076)
- Townsites (LGATE-248)
- WA Now Aerial Imagery

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)

D.2. References

Australian Museum (2019) Peregrine Falcon. Australian Museum, New South Wales. Available from: https://australian.museum/learn/animals/birds/peregrine-falcon/ (Accessed 03 June 2025).

Biostat (2020) Vegetation Clearing – Fauna Assessment. Report prepared for Ora Banda Mining, by Biostat Pty Ltd, March 2020.

Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Menzies (012052. Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 27 May 2025).

Carnegie Gold Pty Ltd (2024) Annual clearing report for Carnegie Gold Pty Ltd – 1 July 2023 to June 2024.

Carnegie Gold Pty Ltd (2025) Clearing permit application form, CPS 8882/2, received 12 February 2025.

Conservation and Land Management (CALM) (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Department of Biodiversity, Conservation and Attractions (DBCA) (2020) Guideline for the survey of arid bronze azure butterfly (ABAB) in Western Australia. Available from: https://www.dbca.wa.gov.au/management/threatened-species-and-communities/resources/threatened-and-priority-fauna-resources

Department of Biodiversity, Conservation and Attractions (DBCA) (2025) List of threatened ecological communities (accessed 04 June 2025). Available from: https://www.dbca.wa.gov.au/management/threatened-species-and-communities

Department of Environment Regulation (DER) (2014) *A guide to the assessment of applications to clear native vegetation*. Perth. https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2017) Survey guidelines for Australia's threatened birds. https://www.dcceew.gov.au/sites/default/files/documents/survey-guidelines-birds-april-2017.pdf (Accessed 05 June 2025).

Department of Planning, Lands and Heritage (DPLH) (2025) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS (Accessed 27 May 2025).

Department of Primary Industries and Regional Development (DPIRD) (2020) Advice received in relation to Clearing Permit Application CPS 8882/1. Deputy Commissioner of Soil and Land Conservation, Department of Primary Industries and Regional Development, Western Australia, May 2020.

Department of Primary Industries and Regional Development (DPIRD) (2025) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f (Accessed 27 May 2025).

Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. https://www.wa.gov.au/system/files/2024-11/procedure-native-vegetation-clearing-permits.pdf

Eastwood, R. Jacks, A. Williams, A.A.E. Petersen. L, Cameron, J. (2023) Current distribution, preferred habitat, behaviour, and biology of the Inland Hairstreak, *Jalmenus aridus* Graham & Moulds, 1988 (Lepidoptera: Lycaenidae) in the Eastern Goldfields region of Western Australia. Records of the Western Australian Museum.

Environmental Protection Authority (EPA) (2016) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf

Environmental Protection Authority (EPA) (2020) Technical Guidance – Terrestrial Fauna Surveys. https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf

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

Jenny Borger Botanical Consulting (JBBC) (2019) Targeted Vegetation and Flora Survey of the Proposed Waihi Mining Project and adjacent areas. Report prepared for Ora Banda Mining Limited, by Jenny Borger Botanical Consulting, October 2019.

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

Pringle, H. J. (1994) Pastoral resources and their management in the north-eastern goldfields, Western Australia. Report 22/94. Department of Primary Industries and Regional Development.

Schoknecht, N. R., and Pathan, S. (2013) Soil groups of Western Australia – A simple guide to the main soils of Western Australia (4th edn). Report No. 380. Department of Agriculture and Food.

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.

The Western Australian Biodiversity Science Institute (WABSI) (2022) Arid Bronze Azure Butterfly, Workshop Report 2022. The Western Australian Biodiversity Science Institute. Available from: https://wabsi.org.au/wp-content/uploads/2022/10/Arid-Bronze-Azure-Butterfly-WABSI-Report.pdf (Accessed 03 June 2025).

Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed 06 June 2025).

4. Glossary

Acronyms:

BC Act	*Biodiversity Conservation Act 2016,* 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	*Environmental Protection Act 1986*, Western Australia

EPA	Environmental Protection Authority, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (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	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

DBCA (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.