

1. Application details and outcomes

1.1. Permit application details

Permit number:	8756/2
Permit type:	Purpose Permit
Applicant name:	Paddington Gold Pty Ltd
Application received:	23 December 2024
Application area:	142.85 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 24/182, 24/223, 24/393 and 24/838
Location (LGA area/s):	Shire of Kalgoorlie-Boulder
Colloquial name:	Rose Dam South Project

1.2. Description of clearing activities

Paddington Gold Pty Ltd proposes to clear up to 142.85 hectares of native vegetation within a boundary of approximately 142.85 hectares, for the purpose of mineral production and associated activities (Paddington Gold Pty Ltd, 2024). The project is located approximately 30 kilometres northwest of Kalgoorlie, within the Shire of Kalgoorlie-Boulder (GIS Database). The total cumulative area of land cleared under this permit to date is approximately 61.29 hectares (Norton Gold Fields, 2024).

Clearing permit CPS 8756/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 20 February 2020 and was valid from 14 March 2020 to 13 March 2025. The permit authorised the clearing of up to 143 hectares of native vegetation within a boundary of approximately 143 hectares, for the purpose of mineral production and associated activities.

On 23 December 2024, the Permit Holder applied to amend CPS 8756/1 to extend the duration of the permit by five years. The delegated officer has included an administrative update on the amount authorised to clear from 143 hectares to 142.85 hectares.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	11 March 2025
Decision area:	142.85 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) 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), relevant datasets (Appendix E), supporting information provided by the applicant, including the results of a flora and vegetation survey, 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;
- the loss of native vegetation that is potentially suitable breeding habitat for malleefowl (*Leipoa ocellata*);
- potentially suitable habitat for arid bronze azure butterfly (*Ogyris petrina*);
- potentially suitable habitat for inland hairstreak butterfly (*Jalmenus aridus*);
- potentially suitable habitat for several other conservation significant fauna species; and
- potential land degradation in the form of wind and water 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;
- commence construction no later than six months after undertaking clearing to reduce the risk of erosion;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- a fauna management (malleefowl) condition within potentially suitable breeding habitat 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;
- a fauna management (arid bronze azure butterfly) 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 8756/1, except in the case of principle (b), (f) and (g). The Delegated Officer determined that the proposed extension of duration is not likely to lead to an unacceptable risk to environmental values.

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*

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)

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 mining proposal includes an environmental management plan encompassing measures for flora, fauna, weeds, malleefowl, bushfires, flood and groundwater (Paddington 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 8756/1, however updated information on conservation significant fauna species and a new rangeland survey has been incorporated into this assessment.

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

Assessment

A desktop assessment has identified nine conservation significant fauna species that may potentially occur within the application area (Terrestrial Ecosystems, 2019; GIS Database):

Mammals

- central long-eared bat (*Nyctophilus major tor*, P3)

Birds

- malleefowl (*Leipoa ocellata*, VU)
- princess parrot (*Polytelis alexandrae*, P4)
- western rosella (inland) (*Platycercus icterotis xanthogenys*, P4)
- peregrine falcon (*Falco peregrinus*, OS)
- oriental plover (*Charadrius veredus*, MI)
- fork-tailed swift (*Apus pacificus*, MI)

Invertebrates

- arid bronze azure butterfly (ABAB) (*Ogyris petrina*, formerly *Ogyris subterrestris petrina*, CR)
- inland hairstreak butterfly (*Jalmenus aridus*, P1)

Malleefowl

Malleefowl is a large ground-dwelling bird that occurs in a range of habitat types, primarily found in semi-arid to arid shrublands and low woodlands (3-8 metres in height) dominated by mallee and associated habitats, such as broombush (*Melaleuca uncinata*) and native pine (*Callitris spp.*) scrub (DCCEEW, 2024). The nest is constructed in sandy soils and leaf litter by building a large mound for egg incubation (DCCEEW, 2024). This species favours mallee that has been long unburnt and ungrazed (DCCEEW, 2024). One old, extinct malleefowl mound was recorded within the application area (Terrestrial Ecosystems, 2019). Two areas mapped as low woodland dominated by mallee (*Eucalyptus clelandiorum* and *Eucalyptus griffithsii* over sclerophyll shrubland and *Eucalyptus griffithsii* over sclerophyll shrubland) (NVS, 2019a; Appendix D) are considered potentially suitable breeding habitat. There are 18 records of malleefowl within the local surrounds (20 kilometres) (GIS Database). Given potentially suitable foraging and breeding habitat may occur within the application area, impacts can be minimised with the implementation of a pre-clearance survey in potentially suitable breeding habitat and directional clearing conditions.

Arid bronze azure and inland hairstreak butterflies

Arid bronze azure butterfly populations are severely fragmented, restricted in geographic range and sensitive to clearing and habitat disturbance (DBCA, 2020). The preferred habitat is described as vegetation of mature mixed gimlet (*Eucalyptus salubris*) and salmon gum (*Eucalyptus salmonophloia*) woodlands on red-brown loam soils, with an open understorey (DBCA, 2020). The application area occurs within mapped potential habitat area for ABAB with potentially suitable habitat occurring in the form of *Eucalyptus salmonophloia* woodland (NVS, 2019a; Appendix D). ABAB has an obligate association with a sugar ant *Camponotus* sp. nr. *terebrans* (DBCA, 2020). Terrestrial Ecosystem (2019) fauna survey previously considered ABAB, however, species information and guidelines has been updated since the last fauna survey was conducted over the application area (DBCA, 2020). Potential impacts to ABAB can be minimised with the implementation of a pre-clearance fauna survey condition.

Inland hairstreak butterfly is data deficient and previously only known to two locations near Kalgoorlie, however, has been recorded from another 10 locations within an area of extending approximately 121 kilometres north to south by 42 kilometres east to west (Eastwood *et al.*, 2023). The preferred habitat for this species is summarised as open woodland, *Senna artemisioides* subsp. *filifolia*, variety of flowering shrubs (*Eremophila*, *Scaevola*, and *Maireana*) and open areas of well drained exposed ground adjoining the hostplants (Eastwood *et al.*, 2023). Inland hairstreak caterpillars feed on flowers of *Senna artemisioides* subsp. *filifolia* and this species forms an obligate association with ant species, *Froggattella kirbii* (Eastwood *et al.*, 2023). Terrestrial Ecosystem (2019) fauna survey previously considered inland hairstreak butterfly, however, the information relating this species has been updated since the last fauna survey was conducted over the application area (Eastwood *et al.*, 2023). Potential impacts to inland hairstreak butterfly can be minimised with the implementation of a pre-clearance fauna survey condition.

Other conservation significant fauna

Several species have the potential to occur within the application area, however there is a low likelihood of occurrence for the following species; central long-eared bat, peregrine falcon, western rosella, princess parrot, oriental plover and fork-tailed swift (Terrestrial Ecosystems, 2019). While the application area contains some potentially suitable habitat for these species, it is unlikely these species will be significantly impacted at a regional level, however it is recommended that trees containing hollows

be inspected prior to clearing to avoid clearing any potential roosting or nesting habitat. Local impacts can be minimised with the implementation of a directional clearing condition to allow terrestrial fauna to move into adjacent habitat.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on potentially suitable conservation significant fauna habitat can be managed by implementing pre-clearance fauna survey condition for malleefowl, ABAB and inland hairstreak and a directional clearing condition.

Conditions

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

- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- a fauna management (malleefowl) condition within potentially suitable breeding habitat 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;
- 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.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 4 February 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 (WC2017/007) over the area under application (DPLH, 2025). This claim has been registered with the National Native Title Tribunal 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.

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 noted that the proposed clearing may impact on malleefowl and potentially arid bronze azure butterfly, which is 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.

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). The predominant land use in the region is Crown reserves, grazing of native pastures, conservation and mining activity (CALM, 2002)
Ecological linkage	According to available databases, the application does not contain any known or mapped ecological linkages (Terrestrial Ecosystems, 2019; GIS Database).
Conservation areas	There are no conservation areas within the application area or local surrounds (20 kilometres) (GIS Database). The nearest conservation area is Credo NRS located approximately 28 kilometres northwest of the application area (GIS Database).
Vegetation description	The application area occurs within the Eastern Goldfields subregion of Coolgardie (COO03) (GIS Database). The vegetation of the application area is broadly mapped as the following Beard vegetation associations Kununulling 468 and Coolgardie 540 (detailed in decision report CPS 8756/1; GIS Database). A flora and vegetation survey was conducted over approximately 119 hectares of the application area by Native Vegetation Solutions during June, 2019. Three vegetation types have been recorded within the application area (detailed in decision report CPS 8756/1).
Vegetation condition	The aerial imagery indicates the vegetation within the proposed clearing area is in good to completely degraded (Keighery, 1994) condition (NVS, 2019a; GIS Database). The full Keighery (1994) condition rating scale is provided in Appendix C.
Climate and landform	The application area is mapped within the elevations of 350 to 360 Australian Height Datum (GIS Database). The climate of the region is semi-arid, with an annual rainfall of approximately 264.7 millimetres recorded at Kalgoorlie-Boulder Airport (BoM, 2025; CALM, 2002).
Soil description	The soil is mapped as (GIS Database): <ul style="list-style-type: none"> • Gumland system (265Gm): Extensive pedeplains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys; and • Coolgardie land system (265Co): Uplands and undulating plains associated with ultramafic greenstones, supporting eucalypt woodlands and halophytic shrublands. The soils are likely to be red loamy earths or duplex soils (DPIRD, 2020).
Land degradation risk	When undisturbed, soils are not inherently prone to soil erosion (DPIRD, 2020). Clearing of protective vegetative cover and disturbance of any stony mantles will render them prone to accelerated soil erosion (DPIRD, 2020; Waddell <i>et al.</i> , 2023).
Waterbodies	The desktop assessment and aerial imagery indicated that no permanent watercourses or wetlands occur within the application area (NVS, 2019a; GIS Database).
Hydrogeography	The application area is located within the Goldfields Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). The application area occurs within the Roe palaeovalley (GIS Database). The nearest Public Drinking Water Source area is Broad Arrow Dam Catchment Area located approximately 7.7 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 groundwater salinity is mapped between 1,400-35,000 milligrams per litre total dissolved solids which is described as saline (GIS Database).
Flora	There are no records of Threatened or Priority flora within the application area (NVS, 2019a; 2019b). There are records of six priority flora within 20 kilometres of the application area (GIS Database).
Ecological communities	There are no records of Threatened or Priority Ecological Communities within the application area or local surrounds (20 kilometres) (NVS, 2019a; GIS Database).
Fauna	There are nine conservation significant fauna species that potentially occur within the application area (Terrestrial Ecosystems, 2019; GIS Database).
Fauna habitat	Two fauna habitat types have been described within the application area (detailed in decision report CPS 8756/1)

A.2. Flora analysis table

Conservation significant flora species within 20 kilometres of the application area (Western Australian Herbarium, 1998-; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)
<i>Angianthus prostratus</i>	P3	Y	Y	Y	>8	10
<i>Calandrinia lefroyensis</i>	P1	N	N	N	>8	11
<i>Eremophila praecox</i>	P2	Y	Y	Y	>8	50
<i>Ptilotus rigidus</i>	P1	N	Unknown	N	>8	21
<i>Ptilotus</i> sp. Kalgoorlie (J. Jackson & B. Moyle 260)	P1	N	N	N	>3	3
<i>Rhodanthe uniflora</i>	P1	N	Y	N	>19	3

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		
<p>Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain record of conservation significant flora or assemblages of plants (NVS, 2019a; 2019b; GIS Database).</p> <p>Several weed species have been recorded within the application area (NVS, 2019a). None of the species are listed as Weeds of National Significance or declared pest plants in Western Australia under the <i>Biosecurity and Agriculture Management Act 2007</i>, however 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.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8756/1)</p>	No
<p>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."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared contains potential foraging and breeding habitat for conservation significant fauna.</p>	<p>May be at variance</p> <p>(changed from CPS 8756/1)</p>	Yes <i>Refer to Section 3.2.1, above.</i>
<p>Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is unlikely to contain flora species listed under the BC Act (NVS, 2019a; 2019b; GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8756/1)</p>	No
<p>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."</p> <p><u>Assessment:</u></p> <p>There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (NVS, 2019a; Terrestrial Ecosystems, 2019; GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8756/1)</p>	No
Environmental value: significant remnant vegetation and conservation areas		
<p>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."</p> <p><u>Assessment:</u></p>	<p>Not at variance</p>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p>The extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001; Government of Western Australia; 2019). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (Terrestrial Ecosystems, 2019; GIS Database).</p>	(as per CPS 8756/1)	
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area (GIS Database), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8756/1)</p>	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given no permanent water courses or wetlands are recorded within the application area (GIS Database), the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.</p>	<p>Not likely to be at variance</p> <p>(changed from CPS 8756/1)</p>	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are not generally prone to erosion, however, are susceptible to wind and water erosion when stony mantles are disturbed or perennial vegetation is removed (DPIRD, 2020; Waddell <i>et al.</i>, 2023). Noting the extent of the application area and the condition of the vegetation, the proposed clearing may have an appreciable impact on land degradation. Impacts can be minimised by implementing a staged clearing condition on the permit.</p>	<p>May be at variance</p> <p>(changed from CPS 8756/1)</p>	No
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p> <p>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.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8756/1)</p>	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>Given no permanent water courses or wetlands are recorded within the application area (GIS Database), the proposed clearing is unlikely to increase the incidence or intensity of flooding.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8756/1)</p>	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 Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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

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

Appendix D. Vegetation mapping

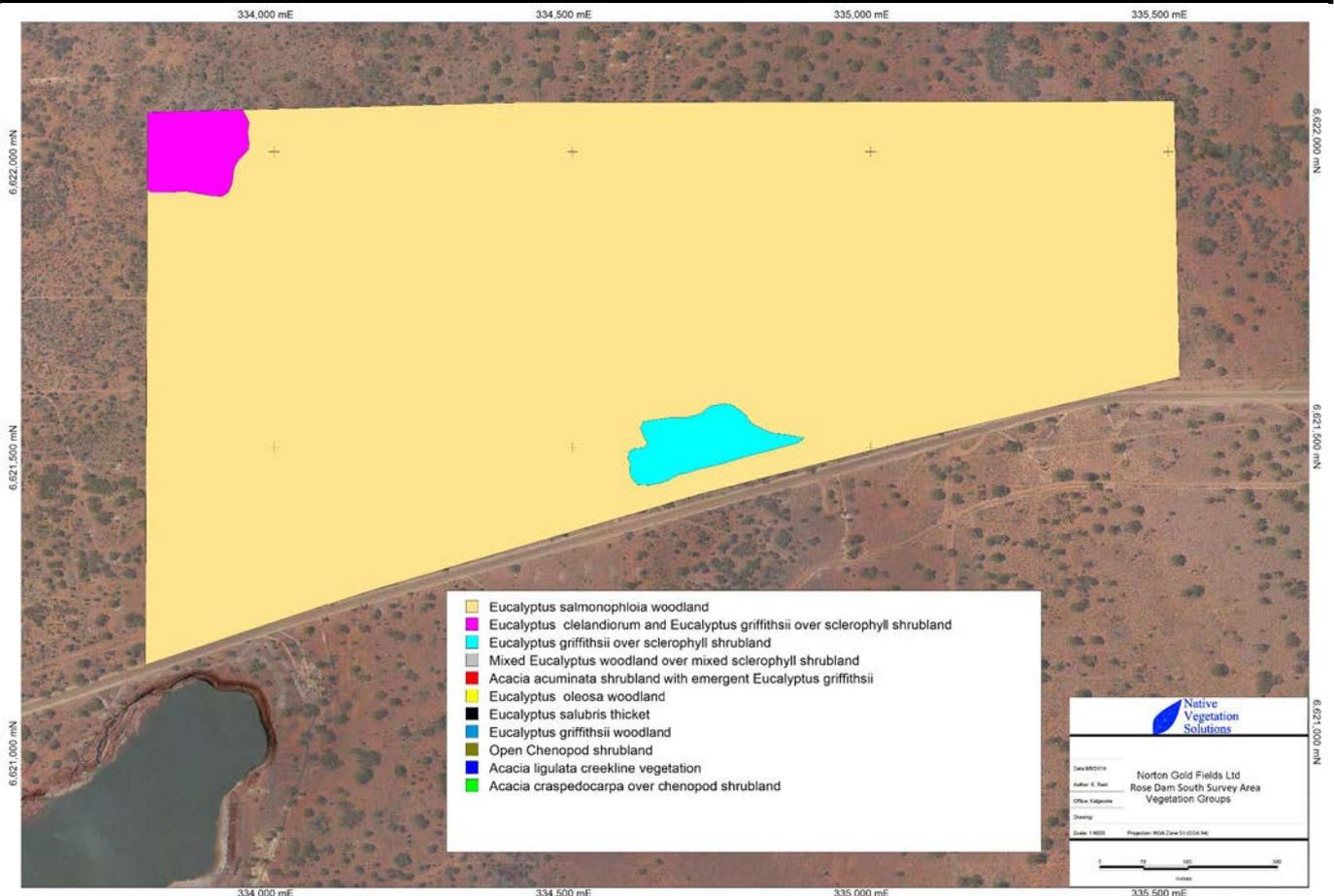


Figure 1. Vegetation mapping intersecting the application area (NVS, 2019a).

E.1. GIS databases

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

- Aboriginal Heritage Places (DPLH-001)
- Contours (DPIRD-073)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Esri World Imagery
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

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

E.2. References

- Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Kalgoorlie-Boulder Airport. Bureau of Meteorology. <https://reg.bom.gov.au/climate/data/> (Accessed 26 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: [Threatened and priority fauna resources | Department of Biodiversity, Conservation and Attractions](#)
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2024) National recovery plan for the Malleefowl (*Leipoa ocellata*). Available from: <https://www.dcceew.gov.au/environment/biodiversity/threatened/publications/recovery/malleefow>
- 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 Planning, Lands and Heritage (DPLH) (2025) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dph.wa.gov.au/ACHIS/index.html?viewer=ACHIS> (Accessed 26 February 2025).
- Department of Primary Industries and Regional Development (DPIRD) (2020) Advice received in relation to Clearing Permit Application CPS 8756/1. Office of the Commissioner of Soil and Land Conservation, Department of Primary Industries and Regional Development, Western Australia, January 2020.
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4. Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)
DMP	Department of Mines and Petroleum, Western Australia (now DEMIRS)
DoEE	Department of the Environment and Energy (now DCCEEW)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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 (2023) 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 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:

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:

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.

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.