

# **Clearing Permit Decision Report**

# Application details and outcomes

# 1.1. Permit application details

Permit number: 9026/2

Permit type: Purpose Permit

Applicant name: Monument Murchison Proprietary Limited

Application received: 12 June 2025
Application area: 300 hectares

Purpose of clearing: Mineral production and associated activities

Method of clearing: Mechanical Removal

**Tenure:** Mining Leases 51/116, 51/117, 51/177, 51/178, 51/252

Location (LGA areas): Shire of Cue and Shire of Meekatharra

Colloquial name: Monument Murchison Gold Project, Burnakura Operations

## 1.2. Description of clearing activities

Clearing permit CPS 9026/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Mines, Petroleum and Exploration) on 29 October 2020 and was valid from 21 November 2020 to 20 November 2025 (DMIRS, 2020; GoWA, 2020). The permit authorised the clearing of up to 300 hectares of native vegetation within a boundary of approximately 2,265.261 hectares, for the purpose of mineral production and associated activities (DMIRS, 2020; GoWA, 2020).

On 12 June 2025, the permit holder applied to amend CPS 9026/1 to extend the permit duration by five years (Monument, 2025).

## 1.3. Decision on application and key considerations

Decision: Grant

**Decision date:** 13 November 2025

**Decision area:** 300 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 Mines, Petroleum and Exploration (DMPE) advertised the application for a public comment for a period of seven days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix F), the results of a flora and vegetation survey (Appendix E), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1; Appendix D), 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 riparian vegetation; and
- potential land degradation in the form of 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;
- a watercourse management condition requiring that surface water flows are not impacted by the proposed clearing;
- where practicable, avoid clearing riparian vegetation; and

commence construction no later than three months after undertaking clearing to reduce the risk of erosion.

The assessment has not changed since the assessment for CPS 9026/1. The Delegated Officer determined that the proposed extension of permit 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 510 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)
- Conservation and Land Management Act 1984 (WA) (CALM Act)
- Mining Act 1978 (WA)
- Rights in Water and Irrigation Act 1914 (RIWI Act)

Relevant agreements (treaties) considered during the assessment include:

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

The key guidance documents which inform this assessment are:

- A guide to the assessment of applications to clear native vegetation (DER, 2014)
- Procedure: Native vegetation clearing permits (DWER, 2021)
- Technical guidance Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance Terrestrial Fauna Surveys for Environmental Impact Assessment (EPA, 2020)

## 3. Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The applicant submitted avoidance and mitigation measures under the following categories (Stewart Garden, 2024):

- Planning;
- Staff management, training and awareness;
- Site preparation;
- Post-clearing;
- Use of saline water in dust suppression;
- Introduction and/or spread of weeds;
- Fauna; and
- Introduction of feral fauna.

The full list of avoidance and mitigation measures is provided in Appendix D.

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

### 3.2. Assessment of impacts on environmental values

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 9026/1. As of 30 June 2025, 0.26 hectares have been cleared under CPS 9026/1 (Stewart Garden, 2025).

### 3.2.1. Biological values (flora) - Clearing Principle (a)

# <u>Assessment</u>

Due to the age of the last flora survey (APM, 2014), species with suitable habitat and considered likely or possible to occur within the application area were assessed as if they were to occur within the application area.

## Species likely to occur

Ptilotus Iuteolus, Priority 3, has been recorded in a minor rocky drainage line with mixed mulga woodland, less than one kilometre from the application area (Western Australian Herbarium, 1998-; GIS Database). This habitat occurs within the application area (APM, 2014). Additionally, the nearest record was located within the Wiluna land system, which occurs within the application area (DPIRD, 2025; GIS Database). Therefore, it is considered likely to occur within the application area. Ptilotus Iuteolus is known from 20 Western Australian Herbarium (1998-) records across three Interim Biogeographic Regionalisation for Australia (IBRA) bioregions. As this species is not geographically restricted and is known from several populations within the

CPS 9026/2 Page 2 of 20

conservation estate, the proposed clearing is not likely to have significant impact on the conservation of the species (Western Australian Herbarium, 1998-).

Prostanthera petrophila, Priority 3, inhabits lateritic soils (Western Australian Herbarium, 1998-). The nearest record is located less than three kilometres from the application area, at a site with clayey soil and Acacia shrubs (GIS Database). This habitat occurs within the application area (APM, 2014; Stewart Garden, 2025). Additionally, the nearest record was located within the Wiluna land system, which occurs within the application area (DPIRD, 2025; GIS Database). Therefore, it is considered likely to occur within the application area. Prostanthera petrophila is known from 45 Western Australian Herbarium (1998-) records across two IBRA bioregions. It is therefore unlikely that the proposed clearing will have a significant impact on the conservation of the species.

Sida picklesiana, Priority 3, has been recorded on clayey soils with *Acacia* shrubs, less than three kilometres from the application area (Western Australian Herbarium, 1998-; GIS Database). This habitat occurs within the application area (APM, 2014). Additionally, the nearest record was located within the Wiluna land system, which occurs within the application area (DPIRD, 2025; GIS Database). Therefore, it is considered likely to occur within the application area. The species is known from 32 Western Australian Herbarium records, representing 19 populations that extend over a range of approximately 250 kilometres across two IBRA bioregions, indicating that it is not locally restricted (DBCA, 2019; Western Australian Herbarium, 1998-). It is therefore unlikely that the proposed clearing will have a significant impact on the conservation of the species.

### Species possibly occurring

Hemigenia virescens, Priority 3, is known to inhabit clay or clay-loam soils (Western Australian Herbarium, 1998-). This habitat occurs within the application area (APM, 2014). Therefore, this species is considered possibly occurring within the application area. It is known from 11 Western Australian Herbarium (1998-) records across two IBRA bioregions, of which one occurs within the conservation estate. As this species is not geographically restricted and is known within the conservation estate, the proposed clearing is not likely to have significant impact on the conservation of the species (Western Australian Herbarium, 1998-).

### Species unlikely to occur

Ptilotus lazaridis, Priority 3, inhabits clay loam on floodplains (Western Australian Herbarium, 1998-). The three nearest records are located within the Mileura land system, which does not occur within the application area (DPIRD, 2025; GIS Database). As suitable habitat does not occur, this species is considered unlikely to occur within the application area.

Calytrix verruculosa, Priority 3, inhabits sandy clay (Western Australian Herbarium, 1998-). This habitat occurs within the application area (APM, 2014). However, as the application area is at the southeastern limit of this distribution, and the nearest records are located over 30 kilometres from the application area, the likelihood of occurrence is reduced (GIS Database). Therefore, this species is considered unlikely to occur within the application area.

#### Conclusion

There are no conservation significant flora likely to be significantly impacted by the proposed clearing.

As the species considered likely or possible to occur within the application area were assessed as if they were to occur within the application area, and the proposed clearing is unlikely to significantly impact these species, no further surveys are required for the assessment of this amendment.

### Conditions

No flora management conditions required.

### 3.2.2. Biological values (fauna) - Clearing Principles (a) and (b)

#### Assessment

#### Fork-tailed swift

Fork-tailed swift (*Apus pacificus*), Migratory, is an aerial species (Commonwealth of Australia, 2008). It is possibly occurring in the airspace above the application area (APM, 2014). Suitable habitat is widespread outside of the application area; therefore, the proposed clearing is unlikely to result in a significant impact to this species (APM, 2014).

## Peregrine falcon

Peregrine falcon (*Falco peregrinus*), Other Specially Protected, is a migratory species. Within their global range, peregrine falcons can be found in a variety of habitats, including mountains, forests, cities, valleys, deserts, and coastlines (NWF, n.d.). This species may use the application area as a wider home range; however, the area is not considered critical habitat.

#### Grey falcon

Grey falcon (*Falco hypoleucos*), Vulnerable, is a nomadic species occurs at low densities across inland Australia (Birdlife International, 2022). In inhabits timbered plains, particularly *Acacia* shrublands near tree-lined watercourses (Birdlife International, 2022; Garnett & Crowley, 2000). As this habitat occurs within the application area, it is considered possibly occurring (APM, 2014). Breeding habitat are the old nests of other birds, particularly raptors of corvids (TSSC, 2019). Nests chosen are usually in the tallest trees in the landscape (TSSC, 2019). As there is no breeding habitat within the application area, the proposed clearing is unlikely to be significant for grey falcon conservation (APM, 2014).

### West coast mulga slider

West coast mulga slider (*Lerista eupoda*), Priority 1, inhabits open mulga woodland on red loams and sandy loams, and has been frequently caught in leaf litter under mulga (Cogger, 2018; Ecologia, 2009; IUCN, 2017). The species is known from 28 records, and is restricted to an area with a diameter of approximately 100 kilometres, south of Meekatharra, within the Murchison bioregion (ALA, n.d.; IUCN, 2017; GIS Database). The application area is within this distribution, with the nearest record located less than seven kilometres north of the application area (GIS Database). However, as the application area

CPS 9026/2 Page 3 of 20

consists of clay-loam soils and contains minimal leaf litter, it is unlikely that the west coast mulga slider occurs within the application area (APM, 2014).

#### Conclusion

There are no conservation significant fauna likely to be significantly impacted by the proposed clearing.

#### Conditions

No fauna management conditions required.

### 3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 7 October 2025 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WCD2021/008 - Yugunga-Nya People Part A) over the area under application (DPLH, 2025). This claim has been determined by the Federal Court on behalf of the claimant groups. 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 is one registered Aboriginal Sites of Significance (Place 162) 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 Mining Proposal / Mine Closure Plan / Mining Development and Closure Proposal approved under the Mining Act 1978

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

End

CPS 9026/2 Page 4 of 20

# Appendix A. Site characteristics

# A.1. Site characteristics

Ecological linkage  Conservation areas	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 Eastern Murchison and Western Murchison subregions of the Murchison bioregion (GIS Database).  The application area is located approximately 46 kilometres south of Meekatharra, within the shires of Cue and Meekatharra (GIS Database).  The application area is not considered a significant ecological linkage. The vegetation immediately surrounding the application area and the majority of the region remains uncleared (GIS Database).
Ecological linkage  Conservation areas	The application area is not considered a significant ecological linkage. The vegetation immediately surrounding the application area and the majority of the region remains uncleared (GIS Database).
Conservation areas	immediately surrounding the application area and the majority of the region remains uncleared (GIS Database).
	The application area is not located within any DBCA legislated conservation areas (GIS Database). The nearest legislated conservation area is the Lakeside Conservation Park, located approximately 86 kilometres southwest of the application area (GIS Database).
	The vegetation of the application area is broadly mapped as the following Beard vegetation associations:  18: Low woodland, open low woodland or sparse woodland of mulga ( <i>Acacia aneura</i> and associated species); and  15: Scrub, open scrub or sparse scrub of Wattle, teatree & other species ( <i>Acacia</i> spp. and <i>Melaleuca</i> spp.) (GIS Database).
	A flora and vegetation survey conducted by Animal Plant Mineral Consulting (APM, 2014) over the application area identified the following nine vegetation types:  • AaFP: Acacia aptaneura mid-dense tree/shrubs over Eremophila galeata very sparse shrubs over Eragrostis sp. sparse grasses;  • AiFP: Acacia incurvaneura sparse tree/shrubs over Eremophila galeata very sparse shrubs over mixed sparse grasses;  • AayFP: Acacia ayersiana sparse to very sparse tree/shrubs over Acacia grasbyi very sparse shrubs over Ptilotus drummundii very sparse low shrubs over mixed sparse to isolated grasses;  • AsFP: Acacia sibilans very sparse shrubs over Sclerolaena cuneata sparse chenopod shrubs over Enneapogon caerulescens very sparse grasses;  • Sd/MeFP: Open Tall Shrubland of Acacia acuminata with an Open Mid Shrubland of Dodonaea inaequifolia and Sparse Low Shrubland of Mirbelia microphylla on upper steep slopes;  • AayDL: Acacia ayersiana mid-dense tree/shrubs over sparse mixed shrubs over sparse to mid-dense mixed grasses;  • AaDL: Acacia aptaneura mid-dense tree/shrubs over Eremophila forsetii sparse shrubs over Aristida contorta mid-dense grasses;  • Aa/AcDL: Acacia caesaneura/A. leptocarpa mid-dense tree/shrubs over very sparse mixed grasses; and  • ApH: Acacia pruinocarpa mid-dense tree/shrubs over mixed chenopod shrubs.  Full descriptions and representative photographs of the above vegetation types are provided in
Vegetation condition	Appendix E.  The vegetation survey (APM, 2014) indicated the vegetation within the proposed clearing area is in very good to degraded (Keighery, 1994) condition.  As the application area is located within the Eremaean Botanical Province, these condition ratings have been converted to the Trudgen (1991) condition rating scale (GIS Database). Therefore, the vegetation within the application area ranges from very good to very poor Trudgen (1991) condition.  This vegetation condition is likely mostly unchanged since the assessment of CPS 9026/1, as only 0.26 hectares have been cleared under CPS 9026/1 up to 30 June 2025 (Stewart Garden, 2025).  The full Trudgen (1991) condition rating scale is provided in Appendix C.
	The climate of the Murchison bioregion is described as arid, with the nearest weather station (Yarrabubba) recording an average rainfall of approximately 212.9 millimetres per year (BoM, 2025; CALM, 2002).  The application area is mapped at elevations of 450-500 metres Australian height datum (GIS Database). Land system mapping broadly describes the application area as plains with
	occasional hills (DPIRD, 2025).
Soil description	The soils within the application area are mapped as the following land systems (DPIRD, 2025):

CPS 9026/2 Page 5 of 20

Characteristic	Details				
	Land system	Description			
	Wiluna system (273Wi)	Low greenstone hills with occasional lateritic breakaways and broad stony slopes, lower saline stony plains and broad drainage tracts; supporting sparse mulga and other acacia shrublands with patches of halophytic shrubs			
	Challenge system (273Ch)	Gently undulating gritty and sandy surfaced plains, occasional granite hills, tors and low breakaways, supporting acacia shrublands and occasional halophytic shrublands			
	Jundee system (273Ju)	Hardpan plains with variable gravelly mantles and minor sandy banks supporting weakly groved mulga shrublands			
Land degradation risk		erately susceptible to accelerated erosion when degraded, and localised erosion as a result of mining activities (Curry et al.,			
	The Challenge land system is no footslopes and drainage floors (	ot normally susceptible to accelerated erosion except on alluvial Curry et al., 1994).			
	Disruption of natural sheet flows starvation (Pringle, 1994).	within the Jundee land system can result in erosion and water			
Waterbodies		oodies or watercourses within the application area (GIS ninor non-perennial drainage lines that intersect the application			
Hydrogeography	legislated surface water areas (	n any mapped Public Drinking Water Source Areas (PDWSA) or GIS Database). The nearest PDWSA is the Cue Water Reserve etres to the southwest of the application area (GIS Database).			
	The application area is located within the East Murchison Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database).				
	The groundwater salinity of the application area is mapped as being 1,000-3,000 total dissolved solids milligrams per litre, which is described as brackish water quality (NWGA, 2023; GIS Database).				
Flora	There are records of 23 conservation significant flora species recorded within a 50 kilometre radius of the application area (GIS Database). The nearest record is located less than one kilometre from the application area (GIS Database).				
Ecological communities		Communities (PECs) mapped within a 50 kilometre radius of ase). These are listed in Appendix A.5.			
	One TEC occurs in the Murchiso (DBCA, 2023b).	on bioregion, being the Depot Springs stygofauna community			
	No TECs or PECs were identifie 2014).	ed during the biological survey of the application area (APM,			
Fauna	There are records of 23 conservation significant fauna species recorded within a 50 kilometre radius of the application area (GIS Database). The nearest record is located approximately five kilometres from the application area (GIS Database).				
Fauna habitat	A fauna habitat field assessment was conducted by APM (2014) over the application area, during which the following three fauna habitats were recorded:				
	Open mulga tree/shrubland on plains: Clay/loam plains with open mulga tree/shrubs which have thicket areas of denser mulga. Very little grass or herb cover and very little leaf litter due to intense cattle disturbance.				
	Drainage: Incised minor drainage lines or localised surface patterns of overland flow. Shallow incised channels tend to form on plains with skeletal soils containing a high proportion of regolith. Dense vegetation of Acacia species. The vegetation is less dense where the drainage bisects the plains with shallow soils.				
	steep sides and water	sed to previous mining activities, including; mining pits with at the bottom, waste rock dumps, roads, drill lines, brushpiles dition of the remaining vegetation community is completely			

# A.2. Vegetation extent

Pre-European Current extent area (ha) (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre- European extent) (%)
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CPS 9026/2 Page 6 of 20

IBRA Bioregion - Murchison	28,120,587	28,044,823	~99	293,505	1.04	
Beard vegetation associations - State						
18	19,892,306	19,843,148	~99	1,317,179	6.62	
39	6,613,418	424,642.41	~99	479,206	7.25	
Beard vegetation associations - Bioregion (Murchison)						
18	12,403,172	12,363,253	~99	45,094	0.36	
39	1,148,400	1,138,064	~99	40,834	3.56	

Government of Western Australia (2019)

# A.3. Flora analysis table

The following threatened and priority flora species have been recorded within 50 kilometres of the application area (GIS Database). The likelihood of occurrence for these species were determined by potentially suitable habitat within the application area, species distribution, biological survey information and known regional records (APM, 2014; Stewart Garden, 2024; Western Australian Herbarium, 1998-; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Ptilotus luteolus	P3	Υ	<1	Likely – discussed in Section 3.2.1
Prostanthera petrophila	P3	Υ	<3	Likely – discussed in Section 3.2.1
Sida picklesiana	P3	Υ	<3	Likely – discussed in Section 3.2.1
Hemigenia virescens	P3	Υ	<32	Possible – discussed in Section 3.2.1
Ptilotus lazaridis	P3	N	<5	Unlikely – discussed in Section 3.2.1
Calytrix verruculosa	P3	Υ	<32	Unlikely – discussed in Section 3.2.1
Eragrostis sp. Erect spikelets (P.K. Latz 2122)	P3	N	<11	Unlikely
Acacia speckii	P4	N	<13	Unlikely
Maireana prosthecochaeta	P3	N	<13	Unlikely
Tecticornia cymbiformis	P3	N	<14	Unlikely
Tribulus adelacanthus	P3	N	<17	Unlikely
Acacia sclerosperma subsp. glaucescens	P3	N	<19	Unlikely
Eremophila fasciata	P3	N	<19	Unlikely
Euploca mitchellii	P1	N	<19	Unlikely
Grevillea inconspicua	P4	N	<29	Unlikely
Drummondita miniata	P3	N	<32	Unlikely
Ptilotus beardii	P3	N	<35	Unlikely
Eremophila retropila	P1	N	<37	Unlikely
Eremophila rostrata subsp. rostrata	Т	N	<40	Unlikely
Eremophila arachnoides subsp. arachnoides	P3	N	<43	Unlikely
Homalocalyx echinulatus	P3	N	<45	Unlikely
Indigofera rotula	P3	N	<45	Unlikely
Goodenia berringbinensis	P4	N	<48	Unlikely

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

CPS 9026/2 Page 7 of 20

# A.4. Fauna analysis table

The following conservation significant fauna species have been recorded within 50 kilometres of the application area (GIS Database). The likelihood of occurrence for these species were determined by potentially suitable habitat within the application area, species distribution, biological survey information and known regional records (APM, 2014; Australian Museum, 2019; Birdlife Australia, 2025; CALM, n.d.; Cogger, 2018; Commonwealth of Australia, 2008; 2020; DSE, 2003; Garnett & Crowley, 2000; IUCN, 2025; Menkhorst et al., 2019; Timms, 2008; TSSC, 2020; van Dyck & Strahan, 2008; WAM, n.d.; Young, 1981; GIS Database).

Species name	Conserva	tion status	Suitable	Distance	Likelihood of	
	WA	EPBC	habitat features? [Y/N]	of closest record to application area (km)	occurrence	
Fork-tailed swift (Apus pacificus)	MI	МІ	Υ	10.2	Possible – discussed in Section 3.2.2	
Peregrine falcon (Falco peregrinus)	os	-	Υ	15.9	Possible – discussed in Section 3.2.2	
Grey falcon (Falco hypoleucos)	VU	-	Υ	20.9	Possible – discussed in Section 3.2.2	
West coast mulga slider ( <i>Lerista eupoda</i> )	P1	-	N	4.7	Unlikely – discussed in Section 3.2.2	
Malleefowl (Leipoa ocellata)	VU	VU	N	12.1	Unlikely	
Gull-billed tern (Gelochelidon nilotica)	MI	MI	N	15.2	Unlikely	
Long-tailed dunnart (Antechinomys longicaudata)	P4	-	N	15.9	Unlikely	
Pectoral sandpiper (Calidris melanotos)	MI	MI	N	21.5	Unlikely	
Common greenshank (Tringa nebularia)	MI	MI	N	22.7	Unlikely	
Curlew sandpiper (Calidris ferruginea)	CR	CR & MI	N	22.7	Unlikely	
Sharp-tailed sandpiper (Calidris acuminata)	MI	MI	N	22.7	Unlikely	
Wood sandpiper ( <i>Tringa glareola</i> )	MI	MI	N	45.4	Unlikely	
Oriental pratincole (Glareola maldivarum)	MI	MI	N	45.6	Unlikely	
Common sandpiper (Actitis hypoleucos)	MI	MI	N	47.3	Unlikely	
Glossy ibis (Plegadis falcinellus)	MI	MI	N	47.5	Unlikely	
Blue-billed duck (Oxyura australis)	P4	-	N	47.7	Unlikely	
Caspian tern (Hydroprogne caspia)	MI	MI	N	47.8	Unlikely	
Marsh sandpiper ( <i>Tringa stagnatilis</i> )	MI	MI	N	47.8	Unlikely	
White-winged black tern (Chlidonias leucopterus)	MI	МІ	N	47.8	Unlikely	
Red-necked stint (Calidris ruficollis)	MI	MI	N	48.0	Unlikely	
Hooded plover (Charadrius cucullatus)	P4	-	N	48.0	Unlikely	
Desert bettong (Bettongia anhydra)	EX	EX	N	9.2	Highly unlikely	
A fairy shrimp (Branchinella simplex)	P1	-	N	17.5	Highly unlikely	

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

## A.5. Ecological community analysis table

The following priority ecological communities have been recorded within 50 kilometres of the application area (GIS Database). The likelihood of occurrence for these communities were determined by potentially suitable habitat within the application area and known regional records (DBCA, 2023a; DPIRD, 2025; Stewart Garden, 2024; GIS Database).

Community name	Abbreviated community name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Polelle calcrete groundwater assemblage type on Murchison palaeodrainage on Polelle Station	Polelle Calcrete	P1	N	3.1	Unlikely

CPS 9026/2 Page 8 of 20

Community name	Abbreviated community name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Austin Land System	Austin LS	P3	N	15.9	Unlikely
Nowthanna Hill calcrete groundwater assemblage type on Murchison palaeodrainage on Yarrabubba Station	Nowthanna Calcrete	P1	N	16.6	Unlikely
Yagahong Land System	Yagahong LS	P3	N	20.0	Unlikely
Yarrabubba west calcrete groundwater assemblage types on Murchison palaeodrainage on Yarrabubba Station	Yarrabubba West Calcrete	P1	N	24.3	Unlikely
Trillbar Land System	Trillbar LS	P3	N	28.5	Unlikely
Hillview calcrete groundwater assemblage type on Murchison palaeodrainage on Hillview Station	Hillview Calcrete	P1	N	31.5	Unlikely
Yarrabubba east calcrete groundwater assemblage types on Murchison palaeodrainage on Yarrabubba Station	Yarrabubba East Calcrete	P1	N	33.0	Unlikely
Taincrow calcrete groundwater assemblage type on Murchison palaeodrainage on Taincrow Station	Taincrow Calcrete	P1	N	42.1	Unlikely
Murchison Downs calcrete groundwater assemblage type on Murchison palaeodrainage on Murchison Downs Station	Murchison Calcrete	P1	N	44.2	Unlikely

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:  The area proposed to be cleared does not contain record of conservation significant flora, fauna or assemblages of plants (APM, 2014; GIS Database). Priority flora species may occur within the application area, but impacts are unlikely to be significant (Section 3.2.1).	Not likely to be at variance (as per CPS 9026/1)	Yes Refer to Section 3.2.1 and Section 3.2.2, above.
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 does not contain significant habitat for conservation significant fauna.	Not likely to be at variance (as per CPS 9026/1)	Yes  Refer to Section 3.2.2, above.
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."  Assessment:  Flora surveys of the application area did not record any species of Threatened flora (APM, 2014). There is one flora species listed under the BC Act known to occur within a 50 kilometre radius of the application area, being <i>Eremophila rostrata subsp. rostrata</i> (GIS Database). As suitable habitat for this taxon does not occur within the application area, the area proposed to be cleared is unlikely to contain flora species listed under the BC Act (APM, 2014; Western Australian Herbarium, 1998-).	Not likely to be at variance (as per CPS 9026/1)	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:	Not likely to be at variance (as per CPS 9026/1)	No

CPS 9026/2 Page 9 of 20

Assessment against the clearing principles	Variance level	Is further consideration required?
No Threatened Ecological Communities (TECs) were identified during the biological survey of the application area (APM, 2014).		
One Threatened Ecological Community (TEC) occurs in the Murchison bioregion, being the Depot Springs stygofauna community (DBCA, 2023b).		
As this community is located approximately 185 kilometres from the application area, and there is an absence of calcrete systems within the project area, this TEC is unlikely to occur (Stewart Garden, 2024; GIS Database).		
Environmental value: significant remnant vegetation and conservation areas	l	
<u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."	Not at variance	No
Assessment:	(as per CPS	
The local area has not been extensively cleared (GIS Database). The extent of the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001; Appendix A.2).	9026/1)	
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."	Not likely to be at variance	No
Assessment:	(as per CPS 9026/1)	
Given the distance to the nearest conservation area (approximately 86 kilometres), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas (GIS Database).		
Environmental value: land and water resources		
Principle (f): "Native vegetation should not be cleared if it is growing in, or in	At variance	No
association with, an environment associated with a watercourse or wetland."	(as per CPS	
Assessment:	9026/1)	
Given watercourses are recorded within the application area, and there are vegetation types associated with these watercourses, the proposed clearing is likely to impact an environment associated with a watercourse (APM, 2014; GIS Database)		
Condition:		
To address the above impact, the following management measure will be required as a condition on the clearing permit:  • a watercourse management condition requiring that surface water flows are not impacted by the proposed clearing; and  • where practicable, avoid clearing riparian vegetation.		
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	May be at variance	No
Assessment:	(as per CPS	
The Wiluna land system, mapped within the application area, is moderately susceptible to erosion (Curry et al., 1994; DPIRD, 2025). Other land systems mapped within the application area are susceptible to erosion in drainage lines and when surface water flows are disrupted (Curry et al., 1994; DPIRD, 2025; Pringle, 1994). Noting the extent and location of the application area, the proposed clearing may have an appreciable impact on land degradation.	9026/1)	
Condition:		
To address the above impact, the following management measure will be required as a condition on the clearing permit:  • a staged clearing condition to minimise erosion; and  • a watercourse management condition requiring that surface water flows are not impacted by the proposed clearing.		

CPS 9026/2 Page 10 of 20

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."	Not likely to be at variance	No
Assessment: The proposed clearing area is not located within a Public Drinking Water Source Area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear, however, there are several non-perennial watercourses within the application area (GIS Database).	(as per CPS 9026/1)	
The groundwater salinity of the permit area has been broadly mapped as being 1,000 to 3,000 total dissolved solids milligrams per litre, which is described as brackish water quality (NWGA, 2023; GIS Database). Groundwater recharge only occurs following significant storm events, due to the high evaporation rates in the area (Stewart Garden, 2024).		
The proposed clearing is unlikely to result in a significant impact to surface or groundwater quality (Stewart Garden, 2024).		
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."	Not likely to be at variance	No
Assessment:	(as per CPS	
There are no permanent watercourses or wetlands within the area proposed to clear, however, there are several non-perennial watercourses within the application area (GIS Database). Periodic flooding following a significant rainfall event is natural for the region (Stewart Garden, 2024). The proposed clearing is unlikely to exacerbate flooding.	9026/1)	

# 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. Avoidance and mitigation measures

The following management measures were submitted by the applicant (Stewart Garden, 2024):

#### Planning:

- All areas to be cleared must be assessed by qualified biological consultants;
- any significant flora and/or fauna habitat identified during surveys will be clearly demarcated and, where it is possible to do so, avoided;

CPS 9026/2 Page 11 of 20

- vegetation clearing will be kept to a minimum and infrastructure located to preserve fauna habitat;
- previously disturbed areas will be utilised where possible to reduce the amount of clearing required;
- vegetation shall be progressively cleared to prevent soil erosion, dust generation and weed introduction and colonisation;
- ensure all required licences and permits have been obtained prior to clearing activities commencing;
- ensure clearing only occurs once the site has been assessed for Aboriginal heritage significance;
- large trees and vegetation will be avoided as much as practicable during the clearing activities; and
- areas of identified weed infestation to be identified and hygiene measure implemented no moving topsoil
  outside of infestation area, clean down of vehicle before entering and prior to leaving infestation area.

#### Staff management, training and awareness:

- All employees and contractors are required to participate in the site induction which will provide an awareness
  of environmental issues such as clearing requirements, fauna impacts and weeds, including risk species and
  response to weed infestation;
- all personnel to drive to conditions and will adhere to the speed restrictions applied to mine roads and tracks;
   and
- all vehicles, plant and equipment are restricted to within clearing limits.

#### Site preparation:

- Adhere to the Monument Murchison Proprietary Limited Ground Disturbance Procedure;
- areas to be cleared must be clearly delineated on project drawings;
- delineation of clearing boundaries shall involve:
  - boundaries of areas approved for clearing shall be identified using survey pegs and/or photo degradable flagging tape;
  - survey pegs/tape shall be placed on the approved boundary and shall remain in place once clearing
    has occurred so that over clearing can be identified;
  - where practicable, survey pegs/tape shall be located at intervals not exceeding 25 metres; and
  - survey pegs/tape shall be positioned so as to be clearly visible from one marker to the next.
- an Environmental Representative shall be present at all times where practicable during clearing works to guide operators around clearing boundaries and ensure over clearing does not occur;
- where there is topsoil and vegetation, it will be stripped and stockpiled for re-use in rehabilitation activities;
- where there is disturbance required on a previously disturbed area that has already been cleared of vegetation and/or topsoil, no vegetation or topsoil shall be stripped;
- sites for stockpiling are to be clearly defined prior to clearing;
- vegetation shall be removed, transported and stockpiled in a way that does not damage vegetation or disturb soil outside of the clearing limits;
- mature trees should be avoided where practicable;
- trees should be hand trimmed where only a portion of the tree shall be affected by works; and
- cleared vegetation shall either be stockpiled in an approved location to avoid interference to surface drainage flow or directly placed on areas to be rehabilitated.

#### · Post-clearing:

- Burning of vegetation is prohibited;
- areas disturbed shall be determined by the Survey Department and recorded on the Site Plan;
- the areas disturbed shall be reported to DMPE in the AER;
- clearing beyond approved clearing boundary and/or limits shall be reported using an Incident Report Form.
   Over clearing shall be reported to the DMPE where the area has exceeded approved limits; and
- cleared areas that are no longer required will be rehabilitated as soon as practicable. Bare, compacted soils
  and previously disturbed areas that are not required shall be ripped and re-contoured in order to promote
  seed germination.

# Use of saline water in dust suppression:

- Water sprayed onto haul roads will be restricted to the running surface to prevent overspray into vegetation;
- equipment suitable for the task will be utilised for dust suppression;
- water will be applied at an appropriate rate to minimise dust; and
- any saline water spills or leaks will be contained and cleaned up.

#### Introduction and/or spread of weeds:

- Any equipment or vehicle considered to have been working in a weed risk area will be cleaned down before
  mobilising to site;
- it is a requirement that all earthmoving, drilling and construction equipment or machinery that could potentially
  have collected weed seeds or matter must be clean of soil and vegetation matter and be inspected prior to
  mobilisation for works;
- equipment shall be inspected upon arrival' and
- all vehicles and equipment shall be restricted to designated mine areas and roads.

#### Fauna:

- Other than formal monitoring and fauna relocation undertaken by specialist consultants, native fauna shall not be captured or intentionally handled;
- appropriate training and licensing for fauna handling;
- native fauna have right of way, when possible and safe to do so;
- firearms and pets are prohibited;
- road kill will be removed from the road to a minimum of ten metres into the vegetation to avoid further impacts on fauna feeding on carcasses;
- install fauna egress ramps on all excavations (i.e. sumps and trenches);
- ensure barriers to native fauna movement are kept to a minimum; and

CPS 9026/2 Page 12 of 20

exploration drill holes will be capped upon completion of drilling and rehabilitated in accordance with DMPE guidelines to avoid trapping native fauna.

# • Introduction of feral fauna:

- Ensure foodstuffs are stored and disposed of appropriately to avoid scavenging; and
- no feeding of native or feral animals.

# Appendix E. Vegetation types

Table adapted from APM (2014).

Vegetation code	Summary description and land form	Associated species	Representative photograph
AaFP	Acacia aptaneura mid-dense tree/shrubs over Eremophila galeata very sparse shrubs over Eragrostis sp. sparse grasses. Occurring on plains.	Acacia ayersiana, Acacia caesaneura, Acacia pruinocarpa, Acacia quadrimarginea, Acacia tetragonophylla, Aristida contorta, Calandrinia schistorhiza, Duperreya commixta, Eremophila georgei, Eremophila glutinosa, Eriachne pulchella subsp. pulchella, Maireana sp., Psydrax latifolia, Ptilotus chamaecladus, Ptilotus drummondii, Ptilotus obovatus, Sclerolaena burbidgeae, Senna pleurocarpa, Solanum lasiophyllum, Tribulus sp.	
AiFP	Acacia incurvaneura sparse tree/shrubs over Eremophila galeata very sparse shrubs over mixed sparse grasses. Occurring on plains.	Acacia aptaneura, Acacia caesaneura, Acacia tetragonophylla, Aristida contorta, Calandrinia schistorhiza, Eremophila latrobei subsp. latrobei, Eriachne sp., Eriachne pulchella subsp. pulchella, Maireana sp., Maireana burbidgeae, Marsdenia australis, Psydrax latifolia, Psydrax suaveolens, Ptilotus drummondii, Ptilotus obovatus, Ptilotus roei, Senna sp. Meekatharra (D.J. Edinger 4430), Solanum lasiophyllum, Tribulus sp.	
AayFP	Acacia ayersiana sparse to very sparse tree/shrubs over Acacia grasbyi very sparse shrubs over Ptilotus drummondii very sparse low shrubs over mixed sparse to isolated grasses. Occurring on plains.	Acacia aptaneura, Acacia caesaneura, Acacia eremophila, Acacia pruinocarpa, Acacia ramulosa var. linophylla, Acacia sibilans, Acacia tetragonophylla, Aristida contorta, Calandrinia schistorhiza, Enneapogon caerulescens, Eremophila forrestii subsp. forrestii, Eremophila galeata, Eremophila georgei, Eremophila glutinosa, Eremophila latrobei subsp. latrobei, Eriachne pulchella subsp. pulchella, Hibiscus stuartii, Maireana convexa, Maireana eriosphaera, Maireana villosa, Marsdenia australis, Psammomoya grandiflora, Psydrax suaveolens, Ptilotus nobilis, Ptilotus obovatus, Scaevola spinescens, Sclerolaena burbidgeae, Sclerolaena eriacantha, Senna artemisioides, Senna artemisioides subsp. filifolia, Senna sp. Meekatharra (D.J. Edinger 4430), Sida ammophila, Solanum lasiophyllum.	

CPS 9026/2 Page 13 of 20

AsFP	Acacia sibilans very sparse shrubs over, Sclerolaena cuneata sparse chenopod shrubs over Enneapogon caerulescens very sparse grasses. Occurring on plains.	Acacia grasbyi, Acacia synchronicia, Acacia tetragonophylla, Eremophila jucunda subsp. jucunda, Eremophila pantonii, Exocarpos aphyllus, Santalum spicata, Enneapogon caerulescens, Pittosporum angustifolium, Ptilotus nobilis, Sclerolaena eriacantha, Sida sp. dark green fruits (S. van Leeuwen 2260), Sida sp. Golden calyces (G.J. Leach 1966).	
Sd/MeFP	Mixed emergent tree/shrubs over Sclerolaena cuneata/Mariana eriosphaera middense chenopod shrubs over Aristida contorta sparse grasses. Occurring on plains.	Acacia ayersiana, Acacia synchronicia, Acacia tetragonophylla, Aristida contorta, Atriplex codonocarpa, Enneapogon caerulescens, Eremophila sp., Eremophila galeata, Hakea recurva subsp. arida, Maireana tomentosa, Ptilotus drummondii, Ptilotus nobilis, Ptilotus obovatus, Ptilotus roei, Sclerolaena burbidgeae, Sclerolaena eriacantha, Solanum lasiophyllum, Streptoglossa liatroides, Tecticornia calyptrate, Tecticornia disarticulate, Trianthema triquetra.	
AayDL	Acacia ayersiana mid-dense tree/shrubs over sparse mixed shrubs over sparse to mid- dense mixed grasses. Occurring along drainage lines.	Acacia aptaneura, Acacia caesaneura, Acacia ramulosa var. linophylla, Acacia sibilans, Acacia tetragonophylla, Aristida contorta, Cymbopogon obtectus, Duperreya commixta, Enchylaena tomentosa var. tomentosa, Enneapogon caerulescens, Eragrostis sp., Eragrostis leptocarpa, Eremophila sp., Eremophila forrestii subsp. forrestii, Eremophila galeata, Eremophila georgei, Eremophila glutinosa, Eremophila longifolia, Eriachne pulchella subsp. pulchella, Euphorbia sp., Gnephosis macrocephala, Hakea recurva subsp. arida, Hibiscus sturtii, Maireana eriosphaera, Marsdenia australis, Pluchea dentex, Ptilotus drummondii, Ptilotus nobilis, Ptilotus obovatus, Rhagodia eremaea, Salsola australis, Sclerolaena cuneata, Sida intricata.	
AaDL	Acacia aptaneura mid-dense tree/shrubs over Eremophila forrestii sparse shrubs over Aristida contorta mid-dense grasses. Occurring along incised drainage lines.	Acacia tetragonophylla.	
Aa/AcDL	Acacia caesaneuralA. leptocarpa middense tree/shrubs over very sparse mixed grasses. Occurring along drainage lines.	No additional species.	

CPS 9026/2 Page 14 of 20

ApH

Acacia pruinocarpa
mid-dense
tree/shrubs over
mixed chenopod
shrubs. Rehabilitated
waste dump.

Acacia incurvaneura, Aristida contorta, Atriplex codonocarpa, Eremophila galeata, Hakea recurva subsp. arida, Maireana georgei, Maireana pyramidata, Ptilotus nobilis, Ptilotus obovatus, Sclerolaena burbidgeae, Sclerolaena cuneata, Sclerolaena eriacantha, Solanum cleistogamum.



## Appendix F. Sources of information

### F.1. GIS datasets

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

- 10 metre 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)
- EPA Referred Schemes Pending (DWER-121)
- EPA Referred Significant Proposals (DWER-120)
- EPA Referred Significant Proposals Pending (DWER-103)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Medium Scale Topo Contour (Line) (LGATE-015)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Rivers (DWER-036)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping Best Available (DPIRD-027)
- Surface Water Management Areas (DWER-041)
- Townsites (LGATE-248)
- WA Now Aerial Imagery
- Wild Rivers (DWER-087)

## Restricted GIS Databases used:

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

#### F.2. References

Animal Plant Mineral Consulting (APM) (2014) Level One Biological Survey – Burnakura Operation, Murchison, Western Australia Tenement M51/116, M51/117, M51/177, M51/178. Prepared for Monument Murchison Pty Ltd, by Animal Plant Mineral Pty Ltd, November 2014.

Atlas of Living Australia (ALA) (n.d.) Lerista eupoda Smith, 1996. Atlas of Living Australia. Lerista eupoda: West Coast Mulga Slider | Atlas of Living Australia (Accessed 30 October 2025).

Australian Museum (2019) Peregrine Falcon. Australian Museum, Sydney, 20 March 2019. Peregrine Falcon - The Australian Museum (Accessed 27 October 2025).

Birdlife Australia (2025) Hooded plover. Birdlife Australia. Hooded Plover - BirdLife Australia (Accessed 27 October 2025).

BirdLife International (2022) Species factsheet: Falco hypoleucos. BirdLife International. <u>Grey Falcon Falco Hypoleucos Species Factsheet | BirdLife DataZone</u> (Accessed 30 October 2025).

CPS 9026/2 Page 15 of 20

- Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website Climate Data Online, Yarrabubba. Bureau of Meteorology. <a href="https://req.bom.gov.au/climate/data/">https://req.bom.gov.au/climate/data/</a> (Accessed 27 October 2025).
- Cogger, H. G. (2018) Reptiles and amphibians of Australia: Updated Seventh Edition. CSIRO Publishing, Victoria, Australia, 2018.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2008) Species Profile and Threats Database. Department of Climate Change, Energy, the Environment and Water, Australia. <a href="https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl">https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl</a> (Accessed 27 October 2025).
- Commonwealth of Australia (2020) Wildlife Conservation Plan for Seabirds. Commonwealth of Australia. Wildlife Conservation Plan for Seabirds
- Curry, P.J., Payne, A.L., Leighton, K.A., Hennig, P and Blood, D.A. (1994) An inventory and condition survey of the Murchison River catchment, Western Australia. Technical Bulletin No. 84. Department of Agriculture, South Perth, Western Australia.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2019) Advice received in relation to Clearing Permit Application CPS 8616/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, August 2019.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023a) Priority Ecological Communities List for Western Australia, Version 35. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, June 2023.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023b) Threatened Ecological Communities List May 2023. Department of Biodiversity, Conservation and Attractions. <a href="https://www.dbca.wa.gov.au/wildlife-and-ecosystems/threatened-ecological-communities/list-threatened-ecological-communities">https://www.dbca.wa.gov.au/wildlife-and-ecosystems/threatened-ecological-communities/list-threatened-ecological-communities</a> (Accessed 30 October 2025).
- Department of 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.
- Department of Conservation and Land Management (CALM) (n.d.) Malleefowl species factsheet. Department of Conservation and Land Management, Western Australia. Malleefowl.doc
- Department of Environment Regulation (DER) (2014) A guide to the assessment of applications to clear native vegetation.

  Perth. <a href="https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2">https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2</a> assessment native veg.pdf
- Department of Mines, Industry Regulation and Safety (DMIRS) (2020) Clearing permit decision report, CPS 9026/1. Department of Mines, Industry Regulation and Safety, October 2020.
- Department of Planning, Lands and Heritage (DPLH) (2025) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. <a href="https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS">https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS</a> (Accessed 27 October 2025).
- Department of Primary Industries and Regional Development (DPIRD) (2025) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia.

  <a href="https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f">https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f</a> (Accessed 27 October 2025).
- Department of Sustainability and Environment (DSE) (2003) Action Statement No.174: Blue-billed Duck (Oxyura australis).

  Department of Sustainability and Environment, Victoria. Microsoft Word 174 Blue-billed Duck 2003.doc
- Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Department of Water and Environmental Regulation, Western Australia, October 2021. Procedure Native vegetation clearing permits
- Ecologia Environment (Ecologia) (2009) Weld Range Vertebrate Fauna Assessment. Prepared for Sinosteel Midwest Corporation Pty Ltd, by Ecologia Environment, November 2009. Weld Range Fauna Assessment
- Environmental Protection Authority (EPA) (2016) Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment. EPA Technical Guidance Flora and Vegetation survey Dec13.pdf
- Environmental Protection Authority (EPA) (2020) Technical Guidance Terrestrial Fauna Surveys. <u>2020.09.17 EPA Technical Guidance Vertebrate Fauna Surveys Final.pdf</u>
- Garnett, S. T. and Crowley, G. M. (2000) Action Plan for Australian Birds 2000. Environment Australia, Canberra.
- 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. <a href="https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics">https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics</a>
- Government of Western Australia (GoWA) (2020) Clearing Permit CPS 9026/1, granted 29 October 2020.
- International Union for Conservation of Nature (IUCN) (2017) *Lerista eupoda*. The IUCN Red List of Threatened Species. International Union for Conservation of Nature. <u>Lerista eupoda</u> (Accessed 30 October 2025).
- International Union for Conservation of Nature (IUCN) (2025) Long-tailed dunnart. The IUCN Red List of Threatened Species. International Union for Conservation of Nature. <u>Antechinomys longicaudatus (Long-tailed Dunnart)</u> (Accessed 28 October 2025).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Menkhorst, P., Rogers, D., Clarke, R., Davies, J., Marsack, P., and Franklin, K. (2019) The Australian Bird Guide. CSIRO Publishing, Victoria, 2019.
- Monument Murchison Proprietary Limited (Monument) (2025) Clearing permit amendment application form, CPS 9026/2, received 12 June 2025.

CPS 9026/2 Page 16 of 20

- National Water Grid Authority (NWGA) (2023) Crack the H2O code with our water science glossary. Department of Climate Change, Energy, the Environment and Water, Canberra. Crack the H2O code with our water science glossary | National Water Grid Authority (Accessed 28 October 2025).
- National Wildlife Federation (NWF) (n.d.) Peregrine Falcon. National Wildlife Federation, Virginia. Peregrine Falcon | National Wildlife Federation (Accessed 30 October 2025).
- 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, Western Australia, Perth.

  <a href="https://library.dpird.wa.gov.au/misc">https://library.dpird.wa.gov.au/misc</a> pbns/24
- Stewart Garden Pty Ltd (Stewart Garden) (2024) Monument Murchison Gold Project, Burnakura Operations: Native vegetation clearing permit support information. Prepared for Monument Murchison Pty Ltd, by Stewart Garden Pty Ltd, August 2024.
- Stewart Garden Pty Ltd (Stewart Garden) (2025) Monument Murchison Gold Project Burnakura, Western Australia: Annual Clearing Permit Report 2024-2025. Prepared for Monument Murchison Pty Ltd, by Stewart Garden Pty Ltd, July 2025.
- Threatened Species Scientific Committee (TSSC) (2019) Conservation Advice: Falco hypoleucos (Grey Falcon). Threatened Species Scientific Committee, September 2019. <a href="https://environment.gov.au/biodiversity/threatened/species/pubs/929-conservation-advice-09072020.pdf">https://environment.gov.au/biodiversity/threatened/species/pubs/929-conservation-advice-09072020.pdf</a>
- Threatened Species Scientific Committee (TSSC) (2020) Listing advice: Bettongia anhydra (Desert Bettong). Listing Advice Bettongia anhydra
- Timms, B. V. (2008) Further studies on the fairy shimp genus Branchinella (Crustacea, Anostraca, Thamnocephalidae) in Western Australia, with descriptions of new species. Records of the Western Australian Museum, 24: 289-306. <a href="Adec Preview Generated PDF File">Adec Preview Generated PDF File</a>
- 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.
- van Dyck, S. and Strahan, R. (eds.) (2008) Long-tailed Dunnart (Sminthopsis longicaudata). The Mammals of Australia, 148-150. Reed New Holland, Sydney, 2008.
- Western Australian Herbarium (1998-) FloraBase the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <a href="https://florabase.dbca.wa.gov.au/">https://florabase.dbca.wa.gov.au/</a> (Accessed 28 October 2025).
- Western Australian Museum (WAM) (n.d.) Long-tailed dunnart. Western Australian Museum. <u>Sminthopsis longicaudata | WA Museum Collections</u> (Accessed 28 October 2025).
- Young, C. (1981) Rare marsupial captured in Gibson Desert. The State Wildlife News Service (SWANS) Wildlife Journal, 11(3), 3-6. 080073-11.03.pdf

## 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 (Commonwealth Act)

GIS Geographical Information System

ha Hectare (10,000 square metres)

IBRA Interim Biogeographic Regionalisation for Australia

CPS 9026/2 Page 17 of 20

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 <a href="Ministerial Guideline Number 1">Ministerial Guideline Number 1</a> and <a href="Ministerial Guideline Number 2">Ministerial Guideline Number 2</a> that adopts the use of the International Union for Conservation of Nature (IUCN) <a href="Red List of Threatened Species Categories and Criteria">Red List of Threatened Species Categories and Criteria</a>, 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.

CPS 9026/2 Page 18 of 20

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.

CPS 9026/2 Page 19 of 20

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.

CPS 9026/2 Page 20 of 20