Department of Mines, Petroleum and Exploration

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	4132/9
Permit type:	Purpose permit
Applicant name:	Sandfire Resources Limited
Application received:	26 November 2025
Application area:	450 hectares
Purpose of clearing:	Mine closure and related activities
Method of clearing:	Mechanical removal
Tenure:	Mining Lease 52/1046
	Miscellaneous Licences 52/122 and 52/161
Location (LGA area):	Shire of Meekatharra
Colloquial name:	DeGrussa Copper Project

1.2. Description of clearing activities

Sandfire Resources Limited (Sandfire) proposes to clear up to 450 hectares of native vegetation within a boundary of approximately 1,331.5 hectares, for the purpose of mine closure and related activities (Sandfire, 2025b; 2026). The project is located approximately 140 kilometres northeast of Meekatharra, within the Shire of Meekatharra (GIS Database).

Clearing Permit CPS 4132/1 was granted to Sandfire by the Department of Mines and Petroleum (now the Department of Mines, Petroleum and Exploration (DMPE)) on 17 February 2011 and authorised the clearing of 242 hectares of native vegetation within a boundary of 1,324.5 hectares, for the purpose of mineral production (DMIRS, 2021b).

CPS 4132/2 was granted on 14 July 2011 to increase the amount of clearing authorised to 302 hectares (DMIRS, 2021b).

CPS 4132/3 was granted on 26 July 2012 to increase the amount of clearing authorised to 412 hectares (DMIRS, 2021b).

CPS 4132/4 was granted on 22 November 2012 to increase the amount of clearing authorised to 418 hectares (DMIRS, 2021b).

CPS 4132/5 was granted on 16 May 2013 to amend the permit reporting date and reporting period (DMIRS, 2021b).

CPS 4132/6 was granted on 14 August 2014 to increase the amount of clearing authorised to 450 hectares and extend the duration of the permit to 12 March 2021 (DMIRS, 2021b).

CPS 4132/7 was granted on 21 January 2016 to increase the clearing permit boundary and update tenure, due to a change in the access route to a water bore (DMIRS, 2021b).

CPS 4132/8 was granted on 4 March 2021, to extend the duration of the permit to 12 March 2026 (DMIRS, 2021a; 2021b).

On 26 November 2025, the permit holder applied to amend CPS 4132/8 to extend the permit duration by five years and amend the permit purpose to mine closure and related activities (Sandfire, 2025b; 2026).

The latest annual report for CPS 4132/8 indicates that as of 31 December 2024, 389.04 hectares of clearing has been conducted under the permit (Sandfire, 2025a). A balance of 60.96 hectares remains (Sandfire, 2025a).

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	26 February 2026
Decision area:	450 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 B), relevant datasets (Appendix E), supporting information provided by the applicant (Appendix A), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), and any other matters considered relevant to the assessment (Section 3.3). The Delegated Officer also took into consideration the purpose of the clearing to facilitate mine closure (Sandfire, 2025b; 2026).

The assessment identified that the proposed clearing may result in:

- the clearing of priority flora species *Hemigenia tysonii* (Priority 3);
- the clearing of potentially occurring priority flora;
- the clearing of riparian vegetation;
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- potential land degradation in the form of erosion; and
- potential siltation of local waterways.

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 4132/8. The Delegated Officer determined that the proposed extension of duration and change of permit purpose are 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* (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, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Guidance for the Assessment of Environmental Factors – *Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia* (EPA, 2004a)
- Guidance for the Assessment of Environmental Factors – *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia* (EPA, 2004b)
- 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's internal process includes evaluating the use of previously disturbed areas and assessing alternatives prior to vegetation clearing, demonstrating that the applicant is making an effort to minimise new disturbances (Sandfire, 2025b).

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 B) reveals that the assessment against the clearing principles has not changed significantly from the clearing permit decision report CPS 4132/8 (DMIRS, 2021b).

3.2.1. Biological values - Clearing principles (a) and (b)

Assessment

Recorded flora

The permit area contains the priority flora species *Hemigenia tysonii* (Priority 3), which was identified during the Mattiske Consulting (2010) vegetation survey. Post construction activities in association with the DeGrussa Project identified additional clusters of this species, and Sandfire Resources NL (2014) commissioned a detailed mapping report of *H. tysonii* within the project boundary. Mapping results included field assessments of populations and found individuals of *H. tysonii* to be in a variety of growth stages, with recruitment evident in some areas despite impacts from clearing and grazing (Sandfire Resources NL, 2014). Additionally, a large population was located adjacent to the application area (Sandfire Resources NL, 2014). Given the proposed clearing is for the purpose of mine closure and related activities, most clearing will be conducted in previously disturbed areas (Sandfire, 2026). Therefore, the proposed clearing is not expected to have a significant impact on this species (DMP, 2016). Potential impacts to this species can be reduced by following avoidance, minimisation and reduction principles to reduce the impacts and extent of clearing.

Potentially occurring Flora

Ptilotus luteolus, Priority 3, has been recorded on loamy slopes less than ten kilometres from the application area (GIS Database). This habitat occurs within the application area (Mattiske, 2010). Therefore, it is considered likely to occur within the application area. *Ptilotus luteolus* is known from 20 Western Australian Herbarium (WAH) (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 conservation estate, the proposed clearing is not likely to have a significant impact on the conservation of the species (WAH, 1998-).

Hemigenia virescens, Priority 3, inhabits stony clay-loam soils on gravelly ironstone hills (WAH, 1998-). As this habitat occurs within the application area and there are *Hemigenia virescens* records within ten kilometres, it is considered likely to occur (Mattiske, 2010; WAH, 1998-; GIS Database). *Hemigenia virescens* is known from 11 Western Australian Herbarium (1998-) records across two Interim Biogeographic Regionalisation for Australia (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 (WAH, 1998-).

Sida picklesiana, Priority 3, has been recorded on flat plains with quartz pebbles, less than 15 kilometres from the application area (GIS Database). This habitat occurs within the application area (Mattiske, 2010). Therefore, it is considered that this species possibly occurs within the application area. The species is known from 32 Western Australian Herbarium (1998-) 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; WAH, 1998-). It is therefore unlikely that the proposed clearing will have a significant impact on the conservation of the species.

Maireana prosthecochaeta, Priority 3, inhabits laterite, hills and salty places (WAH, 1998-). Suitable habitat occurs within the application area, so this species is considered possibly occurring (Mattiske, 2010; MBS, 2010). *Maireana prosthecochaeta* is known from 24 Western Australian Herbarium (1998-) records across two Interim Biogeographic Regionalisation for Australia (IBRA) bioregions, with multiple records 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 a significant impact on the conservation of the species (WAH, 1998-).

Eremophila arguta, Priority 1, inhabits loamy soils on floodplains and creeks, often in association with *Eucalyptus* (Chinnock, 2007; WAH, 1998-). As suitable habitat (drainage lines) is present within the application area, it is considered that this species may be present (GIS Database). Impacts to this species may be managed through a vegetation management condition for riparian vegetation and therefore the clearing is unlikely to lead to a significant impacts to this species.

Fauna

It is considered that peregrine falcon (*Falco peregrinus*), grey falcon (*Falco hypoleucos*) and common greenshank (*Tringa nebularia*) may occasionally occur within the application area due to the presence of suitable habitat (Australian Museum, 2019; Commonwealth of Australia, 2008; Garnett & Crowley, 2000; Mattiske, 2010; Ninox, 2010; GIS Database). As these species are highly mobile, and habitat is widespread and abundant in surrounding areas, these species are unlikely to be significantly impacted by the proposed clearing (Australian Museum, 2019; Commonwealth of Australia, 2008; NWF, n.d.; Olsen & Olsen, 1986).

Suitable habitat for malleefowl (*Leipoa ocellata*) occurs within the application area (DCCEEW, 2024; Mattiske, 2010; Ninox, 2010). The nearest record of malleefowl is approximately 22 kilometres southwest of the application area (GIS Database). As this record is at the northern extent of the current malleefowl range and this range has contracted over the past century,

particularly in arid and northern areas, it is unlikely that malleefowl occurs within the application area (Commonwealth of Australia, 2008; DCCEEW, 2024; GIS Database).

Priority ecological communities (PECs)

The Doolgunna Calcrete, Three Rivers Plutonic Calcrete and Three Rivers Calcrete priority ecological communities (PECs) occur 1.8, 28.2 and 47.9 kilometres from the application area respectively (GIS Database). As the application area occurs within the same calcrete palaeovalley as these communities, it is considered they could potentially occur (GIS Database). However, within paleochannels there are discrete populations of subterranean fauna, with a high rate of speciation (Cooper et al., 2002). This lowers the likelihood that these communities occur within the application area. Additionally, these are subterranean groundwater communities, threatened by hydrological changes (DBCA, 2023). As the majority of vegetation proposed to be cleared is not deep rooted, changes to the groundwater level are not anticipated as a result of the proposed clearing (MBS, 2010). Therefore, the above listed PECs are unlikely to be significantly impacted by the proposed clearing.

Conclusion

Recorded flora

Based on the above assessment, the proposed clearing is unlikely to result in significant impacts to *Hemigenia tysonii*, however, potential impacts to this species can be further reduced by following avoidance, minimisation and reduction principles to reduce the impacts and extent of clearing.

Flora potentially occurring

Based on the above assessment, the proposed clearing is unlikely to result in significant impacts to *Ptilotus luteolus*, *Hemigenia virescens*, *Sida picklesiana* and *Maireana prosthecochaeta*.

Impacts to *Eremophila arguta* can be managed through a vegetation management condition for riparian vegetation and therefore the clearing is unlikely to lead to significant impacts to this species.

Fauna

Based on the above assessment, the proposed clearing is unlikely to result in significant impacts to conservation significant fauna.

Priority ecological communities (PECs)

The proposed clearing is unlikely to result in a significant impact to any priority ecological communities (PECs).

Conditions

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

- avoid, minimise to reduce the impacts and extent of clearing; and
- where practicable, avoid clearing riparian vegetation.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 6 February 2026 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There are three native title claims over the area under application (DPLH, 2026). One of these claims (WCD2017/011 – Gingirana) has been determined by the Federal Court on behalf of the claimant group, whilst the other two (WC2022/003 - Yugunga-Nya People #2 and WC2020/003 - Gingirana #4) have been registered with the National Native Title Tribunal on behalf of the claimant groups (DPLH, 2026). 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, 2026). 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 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

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
On 28 January 2026, the applicant confirmed that the permit purpose is to be amended to “mine closure and related activities” (Sandfire, 2026).	The permit purpose is considered throughout the assessment.

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is located within the Augustus subregion of the Gascoyne bioregion (GIS Database). The proposed clearing area is within the Doolgunna Station Conservation Area and Three Rivers Pastoral Lease. It is also surrounded by predominantly copper, gold and iron mining operations. Approximately 99% of the local area (50 kilometre radius from the application area) remains uncleared (GIS Database).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).
Conservation areas	The application area intercepts the Doolgunna Station Conservation Area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: **18**: Low woodland, open low woodland or sparse woodland (mulga and associated species); and **29**: Sparse low woodland; mulga (*Acacia aneura* and close relatives), discontinuous in scattered groups (GIS Database). The application area was surveyed by Mattiske Consulting (2010) over 2009 and 2010. The following seven vegetation types were recorded in the application area: • **S1**: Open scrub of *Grevillea berryana*, *Acacia aneura* var. *aneura* and *Acacia kempeana* over *Eremophila incisa, Eremophila margarethae, Eremophila forrestii* subsp. *forrestii, Ptilotus obovatus* and *Ptilotus schwartzii* over *Aristida contorta* and *Monachather paradoxus* on red/brown sandy loam flats with dolerite, ironstone and quartz pebbles; • **S2**: Low woodland of *Acacia aneura* var. *aneura* and *Grevillea berryana* over *Eremophila incisa* and *Ptilotus* species on red/brown sandy loam flats with ironstone pebbles; • **LW1**: Low woodland of *Acacia aneura* var. *aneura*, *Acacia macraneura, Acacia pruinocarpa* and *Grevillea berryana* over *Eremophila foliosissima, Eremophila forrestii* subsp. *forrestii* and *Eremophila galeata* over *Ptilotus* species and mixed grasses on red/brown sandy loam flats on ironstone pebbles; • **LW2**: Open low woodland of *Acacia aneura* var. *aneura*, *Acacia cuthbertsonii* subsp. *linearis* and *Acacia tetragonophylla* over *Eremophila galeata*, *Eremophila margarethae* over *Ptilotus* and *Senna* species on red/brown sandy loam flats with quartz pebbles; • **C1**: Open scrub of *Acacia aneura* var. *aneura, Acacia aneura* var. *conifera, Acacia kempeana* and *Acacia tetragonophylla* over *Psydrax latifolia*, *Senna artemisioides* subsp. *helmsii, Eremophila galeata, Ptilotus obovatus* and *Solanum lasiophyllum* over mixed herbs and grasses on flow-lines with dolerite and ironstone pebbles on red/brown clay loam; • **C2**: Low open woodland of *Acacia aneura* var. *aneura, Acacia aneura* var. *conifera*, *Acacia craspedocarpa, Acacia tetragonophylla* over *Eremophila galeata* over *Alternanthera nodiflora* and *Cyperus ?centralis* over mixed grasses with occasional emergent *Eucalyptus victrix* on flow-lines with dolerite and ironstone pebbles on red/brown sandy loam gravel; and • **C4**: Scrub of *Acacia aneura* var. *aneura, Acacia aneura* var. *conifera, Acacia macraneura, Acacia cyperophylla* over *Psydrax latifolia*, *Eremophila galeata, Ptilotus obovatus* and mixed grasses with occasional emergent *Corymbia candida* subsp. *dipsodes* on flow-lines with ironstone and dolerite pebbles on red clay loam.
Vegetation condition	The vegetation survey conducted by Mattiske Consulting (2010) in 2009 and 2010 indicated the vegetation within the proposed clearing area ranged from very good to excellent (Keighery, 1994) condition. Since this survey has been conducted, 389.04 hectares of clearing has been conducted under CPS 4132 (Sandfire, 2025a). Therefore, the vegetation condition of the application area likely ranges from completely degraded to excellent Keighery (1994) condition. As the proposed clearing is located within the Eremaean Botanical Province, these condition ratings have been converted to Trudgen (1991) condition rating scale (GIS Database).

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td></td><td>Therefore, the vegetation within the application area likely ranges from completely degraded to very good Trudgen (1991) condition.

The full Trudgen (1991) condition rating scale is provided in Appendix D.</td></tr>
<tr><td>Climate and landform</td><td>The Augustus subregion of the Gascoyne bioregion experiences a desert climate with bimodal rainfall, with the nearest weather station (Doolgunna) recording an average rainfall of approximately 248.7 millimetres per year (BoM, 2026; CALM, 2002).

The application area is mapped at elevations of 540-580 metres Australian height datum (GIS Database). Land system mapping broadly describes the application area as hardpan plains, stony plains, hills and low ridges (DPIRD, 2026).</td></tr>
<tr><td>Soil description</td><td>The following land systems are mapped within the application area (DPIRD, 2026):
<table>
<tr><th>System</th><th>Description</th></tr>
<tr><td>Beasley system (293Be)</td><td>Low ridges, hills and lateritised residuals above stony footslopes and broad, stony lower plains supporting scattered mulga and snakewood shrublands</td></tr>
<tr><td>Horseshoe system (293Ho)</td><td>Gently undulating stony plains and low rounded hills with partially saline drainage foci and alluvial tracts supporting acacia and eremophila tall shrublands, and chenopod low shrublands</td></tr>
<tr><td>Three Rivers system (295Tr)</td><td>Hardpan plains and minor sandy banks supporting sparse mulga shrublands</td></tr>
</table></td></tr>
<tr><td>Land degradation risk</td><td>The Three Rivers land system may be susceptible to soil erosion (Payne et al., 1988).

The Beasley land system is mostly resistant to erosion due to stony mantles, but minor erosion may occur in drainage tracts (Curry et al., 1994).

The Horseshoe land system is generally not susceptible to erosion (Curry et al., 1994).</td></tr>
<tr><td>Waterbodies</td><td>The desktop assessment and aerial imagery indicated that four minor, non-perennial watercourses transect the area proposed to be cleared (GIS Database).</td></tr>
<tr><td>Hydrogeography</td><td>The application area is not within any mapped Public Drinking Water Source Areas (PDWSA). The nearest PDWSA is the Meekatharra Water Reserve located approximately 123 kilometres to the southwest of the application area (GIS Database).

The application area is located within the Gascoyne River and Tributaries Surface Water Area and the East Murchison Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914 (GIS Database).

The groundwater salinity of the application area is mapped as being 500-1,000 total dissolved solids milligrams per litre, which is described as freshwater (NWGA, 2023; GIS Database).</td></tr>
<tr><td>Flora</td><td>The desktop assessment identified 23 priority flora species within 50 kilometres of the application area. No threatened flora are known to occur within 50 kilometres of the application area (GIS Database).

Hemigenia tysonii (Priority 3) has been recorded in surveys of the application area (Mattiske, 2010; MBS, 2010).</td></tr>
<tr><td>Ecological communities</td><td>No threatened ecological communities (TECs) are known to occur within 50 kilometres of the application area (GIS Database). One TEC is known from the Gascoyne bioregion, being the critically endangered Ethel Gorge aquifer stygobiont community (DBCA, 2025).

The desktop assessment identified nine priority ecological communities (PECs) with records within a 50 kilometre radius of the application area; three of these occur within ten kilometres of the application area (GIS Database).</td></tr>
<tr><td>Fauna</td><td>The desktop assessment identified 11 conservation significant fauna species with records within a 50 kilometre radius of the application area (GIS Database). The nearest record is approximately 14 kilometres from the application area (GIS Database).</td></tr>
<tr><td>Fauna habitat</td><td>The Mattiske Consulting (2010) vegetation communities were grouped into four fauna habitat types, based on the vegetation structure, soil type, and presence of absence of large trees (Ninox, 2010). The following habitats occur within the application area:
1. Vegetation communities S1 and S2;
2. Vegetation communities LW1 and LW2;
3. Vegetation community C1; and
4. Vegetation communities C2 and C4 (Ninox, 2010).</td></tr>
</table>

B.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre-European extent) (%)
IBRA Bioregion - Gascoyne	18,075,219	18,067,441	~99	1,855,508	10.27
Beard vegetation associations - State					
18	19,892,306	19,843,148	~99	1,317,179	6.62
29	7,903,991	7,898,973	~99	496,368	6.28
Beard vegetation associations - Bioregion (Gascoyne)					
18	3,273,580	3,271,339	~99	316,154	9.66
29	3,802,460	3,799,636	~99	297,088	7.81

Government of Western Australia (2019)

B.3. Flora analysis table

The following priority flora species have been recorded within 50 kilometres of the application area (GIS Database).

The likelihood of occurrence for these species was determined by potentially suitable habitat within the application area, species distribution, known regional records and the ability to detect the species in surveys (Brown & Davis, 2023; Chinnock, 2007; DPIRD, 2026; Hammer & Davis, 2018; Mattiske, 2010; MBS, 2010; WAH, 1998-; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Hemigenia tysonii	P3	Y	0	Recorded – discussed in Section 3.2.1
Ptilotus luteolus	P3	Y	<10	Likely – discussed in Section 3.2.1
Hemigenia virescens	P3	Y	<10	Likely – discussed in Section 3.2.1
Sida picklesiana	P3	Y	<15	Possible – discussed in Section 3.2.1
Maireana prosthecochaeta	P3	Y	<25	Possible – discussed in Section 3.2.1
Eremophila arguta	P1	Y	<45	Possible – discussed in Section 3.2.1
Eremophila demissa	P1	N	<1	Unlikely
Homalocalyx echinulatus	P3	N	<2	Unlikely
Eucalyptus semota	P1	Y	<10	Unlikely
Rhodanthe sphaerocephala	P1	Y	<10	Unlikely
Ptilotus actinocladus	P1	Y	<15	Unlikely
Goodenia berringbinensis	P4	Y	<15	Unlikely
Dodonaea amplisemina	P4	N	<20	Unlikely
Prostanthera ferricola	P3	N	<20	Unlikely
Indigofera fractiflexa subsp. *augustensis*	P2	N	<20	Unlikely
Eremophila fasciata	P3	Y	<30	Unlikely
Goodenia sp. Banded Ironstone (A. Markey & S. Dillon 4454)	P1	N	<30	Unlikely
Euphorbia sarcostemmoides	P1	N	<30	Unlikely
Verticordia jamiesonii	P3	N	<30	Unlikely
Eremophila prolata	P1	Y	<45	Unlikely

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Eremophila saxatilis	P1	N	<45	Unlikely
Maireana murrayana	P3	N	<45	Unlikely
Tribulus adelacanthus	P3	Y	<50	Unlikely

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

B.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 was determined by potentially suitable habitat within the application area, species distribution and known regional records (Australian Museum, 2019; CALM, n.d.; Commonwealth of Australia, 2008; DCCEEW, 2024; DEPWS, 2021; Garnett & Crowley, 2000; Higgins, 1999; Mattiske, 2010; Menkhorst & Knight, 2011; NESP, 2021; Ninox, 2010; Pavey et al., 2012; GIS Database).

Species name		Conservation status		Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Common	Scientific	WA	EPBC			
Peregrine falcon	*Falco peregrinus*	OS	-	Y	13.8	Possible – discussed in Section 3.2.1
Grey falcon	*Falco hypoleucos*	VU	-	Y	33.7	Possible – discussed in Section 3.2.1
Common greenshank	*Tringa nebularia*	MI	MI, EN	Y	37.8	Possible – discussed in Section 3.2.1
Malleefowl	*Leipoa ocellata*	VU	VU	Y	22.3	Unlikely – discussed in Section 3.2.1
Long-tailed dunnart	*Antechinomys longicaudata*	P4	-	N	36.3	Unlikely
Banded hare-wallaby	*Lagostrophus fasciatus fasciatus*	VU	VU	N	38.2	Unlikely
Red-necked stint	*Calidris ruficollis*	MI	MI	N	39.3	Unlikely
Common sandpiper	*Actitis hypoleucos*	MI	MI	N	39.6	Unlikely
Brush-tailed mulgara	*Dasycercus blythi*	P4	-	N	40.8	Unlikely
Princess parrot	*Polytelis alexandrae*	P4	VU	N	47.9	Unlikely
Burrowing bettong (inland)	*Bettongia lesueur graii*	EX	EX	Y	45.4	Highly unlikely

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

B.5. Ecological community analysis table

The following priority ecological communities (PECs) have been recorded within 50 kilometres of the application area (GIS Database).

The likelihood of occurrence for these communities was determined by potentially suitable habitat within the application area, community distribution and known regional records (DBCA, 2023; Mattiske, 2010; GIS Database).

Community name	Common ID	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Doolgunna calcrete groundwater assemblage type on Gascoyne palaeodrainage on Doolgunna Station	Doolgunna Calcrete	P1	Y	1.8	Possible – discussed in Section 3.2.1
Three Rivers Plutonic calcrete groundwater assemblage types on Gascoyne palaeodrainage on Three Rivers Station	Three Rivers Plutonic Calcrete	P1	Y	28.2	Possible – discussed in Section 3.2.1
Three Rivers calcrete groundwater assemblage types on Gascoyne palaeodrainage on Three Rivers Station	Three Rivers Calcrete	P1	Y	47.9	Possible – discussed in Section 3.2.1
Frederick Land System	Frederick LS	P3	N	3.4	Unlikely
Robinson Range vegetation complexes (banded ironstone formation)	Robinson Range BIF	P1	N	3.9	Unlikely
Blech Land System	Blech LS	P3	N	10.4	Unlikely
Peedawarra Land System	Peedawarra LS	P3	N	33.2	Unlikely
Bibbingunna Land System	Bibbingunna LS	P3	N	38.1	Unlikely
Jingle Land System	Jingle LS	P3	N	49.7	Unlikely

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

Appendix C. 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 proposed clearing is unlikely to result in a significant impact to the priority flora species known from the application area, *Hemigenia tysonii*, or to other priority flora species potentially occurring. The area proposed to be cleared is unlikely to contain critical habitat for conservation significant fauna. The proposed clearing is unlikely to result in a significant impact to ecological communities.	Not likely to be at variance (as per CPS 4132/8)	Yes *Refer to Section 3.2.1, 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 is unlikely to contain critical habitat for conservation significant fauna.	Not likely to be at variance (as per CPS 4132/8)	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: As no threatened flora species are known to occur in the local area (50 kilometre radius of the application area), the area proposed to be cleared is unlikely to contain flora species listed under the BC Act.	Not likely to be at variance (as per CPS 4132/8)	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 4132/8)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
As the only threatened ecological community (TEC) known from the Gascoyne bioregion, being the critically endangered Ethel Gorge aquifer stygobiont community, occurs approximately 240 kilometres north of the application area, the proposed clearing is unlikely to impact TECs (DBCA, 2025; GIS Database).		
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The 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 B.2).	Not at variance (as per CPS 4132/8)	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: The application area intercepts the Doolgunna Station Conservation Area (GIS Database). As the area and boundary of clearing has not changed the environmental impacts remain consistent with the assessment contained in the CPS 4132/7 decision report (DMP, 2016).	May be at variance (as per CPS 4132/8)	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: Given four minor, non-perennial watercourses transect the area proposed to be cleared, the proposed clearing is likely to impact an environment associated with a watercourse. Conditions: To address the above impact, the following management measures 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.	At variance (as per CPS 4132/8)	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The Three Rivers land system, which occurs within the application area, is susceptible to soil erosion (DPIRD, 2026; Payne et al., 1988). Additionally, the Beasley land system, which occurs within the application area, is susceptible to soil erosion within drainage lines (Curry et al., 1994; DPIRD, 2026). Noting the location of the application area, the proposed clearing may have an appreciable impact on land degradation (GIS Database). Conditions: To address the above impact, the following management measures will be required as a condition on the clearing permit: • commence construction no later than three months after undertaking clearing to reduce the risk of erosion; • a watercourse management condition requiring that surface water flows are not impacted by the proposed clearing; and • where practicable, avoid clearing riparian vegetation.	May be at variance (as per CPS 4132/8)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The application area is not located in a Public Drinking Water Source Area (PDWSA) (GIS Database). As the majority of vegetation proposed to be cleared is not deep rooted, changes to groundwater are not anticipated as a result of the proposed clearing (MBS, 2010). With an average annual rainfall of 248.7 millimetres and an average annual evaporation rate of approximately 3,600 millimetres there is likely to be little surface flow during normal seasonal rains (BoM, 2006; 2026). Therefore, impacts to surface water quality are unlikely to be significant. However, the likelihood of siltation of local waterways can be reduced by undertaking measures to reduce water erosion. Conditions: To address the above impact, the following management measures will be required as a condition on the clearing permit: • commence construction no later than three months after undertaking clearing to reduce the risk of erosion; • a watercourse management condition requiring that surface water flows are not impacted by the proposed clearing; and • where practicable, avoid clearing riparian vegetation.	Not likely to be at variance (as per CPS 4132/8)	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: With an average annual rainfall of 248.7 millimetres and an average annual evaporation rate of approximately 3,600 millimetres there is likely to be little surface flow during normal seasonal rains (BoM, 2006; 2026). Given the likelihood that surface flow is limited, the proposed clearing is not likely to cause or increase the incidence or intensity of flooding.	Not likely to be at variance (as per CPS 4132/8)	No

Appendix D. 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 E. Sources of information

E.1. GIS datasets

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

- Cadastre (Polygon) (LGATE-217)
- 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)
- EPA Redbook Recommended Conservation Reserves 1976-1991 (DBCA-029)
- 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)
- Medium Scale Topo Water (Line) (LGATE-018)
- Medium Scale Topo Water (Polygon) (LGATE-016)
- Native Title (Determination) (LGATE-066)
- Native Title (Fed Court) (LGATE-005)
- Native Title (ILUA) (LGATE-067)
- Native Title (NNTT) (LGATE-004)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Reserves (LGATE-227)
- 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)
- 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)

E.2. References

Australian Museum (2019) Peregrine falcon (*Falco peregrinus*). The Australian Museum, Sydney. https://australian.museum/learn/animals/birds/peregrine-falcon/ (Accessed 4 February 2026).

Brown, A. P. and Davis, R. W. (2023) *Eremophila improvisa*, *E. rubicunda* and *E. saxatilis* (Scrophulariaceae), three new species from Western Australia. Nuytsia: Journal of the Western Australian Herbarium, 34, 255-260. 1062.pdf

Bureau of Meteorology (BoM) (2006) Map of average pan evaporation – Annual. Bureau of Meteorology. Average annual, monthly and seasonal evaporation maps, Bureau of Meteorology (Accessed 5 February 2025).

Bureau of Meteorology (BoM) (2026) Bureau of Meteorology Website – Climate Data Online, Doolgunna (Number 7023). Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 2 February 2026).

Chinnock, R. J. (2007) Eremophila and allied genera: a monograph of the Myoporaceae. Rosenberg Publishing, New South Wales, April 2007.

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. https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl (Accessed 4 February 2026).

Cooper, S. J. B., Hinze, S., Leys, R., Watts., C. H. S. and Humphreys, W. F (2002) Islands under the desert: molecular systematics and evolutionary origins of stygobitic water beetles (Coleoptera : Dytiscidae) from central Western Australia. Invertebrate Systematics, 16(4), 589-590. https://doi.org/10.1071/IT01039

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 and Surrounds, Western Australia. Technical Bulletin No. 84, Department of Agriculture, South Perth.

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) (2023) Priority Ecological Communities for Western Australia, Version 35. Species and Communities Program, Department of Biodiversity, Conservation and Attractions, June 2023.

Department of Biodiversity, Conservation and Attractions (DBCA) (2025) Threatened Ecological Communities List November 2025. Department of Biodiversity, Conservation and Attractions. Threatened species and communities | Department of Biodiversity, Conservation and Attractions (Accessed 3 February 2026).

Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2024) National Recovery Plan for the malleefowl (*Leipoa ocellata*), Department of Climate Change, Energy, the Environment and Water, Canberra. https://www.dcceew.gov.au/sites/default/files/documents/national-recovery-plan-malleefowl.pdf

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.) Banded hare-wallaby, *Lagostrophus fasciatus* (Pèron and Lesueur, 1807). Department of Conservation and Land Management, Western Australia. Banded hare-wallaby

Department of Environment, Parks and Water Security (DEPWS) (2021) Threatened species of the Northern Territory: Princess parrot, *Polytelis alexandrae*. Department of Environment, Parks and Water Security, Northern Territory Government, November 2021. Threatened species of the Northern Territory - Princess parrott (Polytelis alexandrae)

Department of Mines and Petroleum (DMP) (2016) Clearing Permit Decision Report CPS 4132/7. Department of Mines and Petroleum, January 2016. Available from: Index of /permit/4132/Permit

Department of Mines, Industry Regulation and Safety (DMIRS) (2021a) Clearing Permit CPS 4132/8, granted 4 March 2021. Available from: Index of /permit/4132/Permit

Department of Mines, Industry Regulation and Safety (DMIRS) (2021b) Clearing Permit Decision Report CPS 4132/8. Department of Mines, Industry Regulation and Safety, March 2021. Available from: Index of /permit/4132/Permit

Department of Planning, Lands and Heritage (DPLH) (2026) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS (Accessed 3 February 2026).

Department of Primary Industries and Regional Development (DPIRD) (2026) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f (Accessed 2 February 2026).

Environmental Protection Authority (EPA) (2004a) Guidance for the Assessment of Environmental Factors - Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia, No. 56, June 2004.

Environmental Protection Authority (EPA) (2004b) Guidance for the Assessment of Environmental Factors - Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia, No. 51, June 2004.

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

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

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. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics

Hammer, T. A. and Davis, R. W. (2018) *Ptilotus actinocladus* (Amaranthaceae), a new and rare species from the Gascoyne bioregion, Western Australia. Nuytsia: Journal of the Western Australian Herbarium, 29, 145-149. 877.pdf

Higgins, P. J. (ed.) (1999) Handbook of Australian, New Zealand and Antarctic Birds. Volume Four - Parrots to Dollarbird. Oxford University Press, Melbourne.

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

Martinick Bosch Sell Pty Ltd (MBS) (2010) Purpose permit application: DeGrussa Copper Gold Project, native vegetation management plan and assessment of clearing principles. Prepared for Sandfire Resources NL, by Martinick Bosch Sell Pty Ltd, December 2010.

Mattiske Consulting (2010) Flora and Vegetation Survey of the Doolgunna Project. Prepared for Sandfire Resources NL, by Mattiske Consulting Pty Ltd, June 2010.

Menkhorst, P. and Knight, F. (2011) Long-tailed Dunnart (*Sminthopsis longicaudata*). A field guide to the mammals of Australia (Third Edition), 76. Oxford University Press, Victoria.

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 3 February 2026).

National Wildlife Federation (NWF) (n.d.) Peregrine Falcon. National Wildlife Federation, Virginia. Peregrine Falcon | National Wildlife Federation (Accessed 4 February 2026).

NESP Threatened Species Recovery Hub (NESP) (2021) Arid Zone Monitoring Species Profile: Brush-tailed mulgara, Project 3.2.5 findings factsheet. nespthreatenedspecies.edu.au/publications-and-tools/arid-zone-monitoring-species-profiles

Ninox Environmental Consulting (Ninox) (2010) A level 1 vertebrate fauna assessment of the Sandfire Resources NL DeGrussa Copper-Gold Project, north of Meekatharra, Western Australia. Prepared for Sandfire Resources NL, by Ninox Environmental Consulting, May 2010.

Olsen, P. D. and Olsen, J. (1986) Distribution, status, movements and breeding of the grey falcon (*Falco hypoleucos*). Emu, 86(1), 47-50. Distribution, Status, Movements and Breeding of the Grey Falcon Falco Hypoleucos: Emu - Austral Ornithology: Vol 86, No 1

Pavey, C. R., Nano, C. E. M., Cooper, S. J. B., Cole, J. R. and McDonald, P. J. (2012) Habitat use, population dynamics and species identification of mulgara, Dasycercus blythi and D. cristicauda, in a zone of sympatry in central Australia. Australian Journal of Zoology, 59(3), 156-169. https://doi.org/10.1071/ZO11053

Payne, A. L., Mitchell, A. A., and Holman, W. F. (1988) An Inventory and Condition Survey of rangelands in the Ashburton River Catchment, Western Australia. Department of Agriculture, Western Australia.

Sandfire Resources NL (2014) Priority 3 Species Vegetation Mapping Project – *Hemigenia tysonii*. Sandfire Resources NL, Perth.

Sandfire Resources Ltd (Sandfire) (2025a) 2024 annual report, clearing activities related to CPS 4132/8, CPS 4526/6 and CPS 4373/4: DeGrussa Copper Project, received 19 March 2025.

Sandfire Resources Limited (Sandfire) (2025b) Clearing permit application form, CPS 4132/9, received 26 November 2025.

Sandfire Resources Limited (Sandfire) (2026) Additional information received via email, 28 January 2026.

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.

Western Australian Herbarium (WAH) (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dbca.wa.gov.au/ (Accessed 4 February 2026).

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
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

DBCA (2023) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia:

Threatened species

T Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the Biodiversity Conservation Act 2016 (BC Act).

Threatened fauna is the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

Threatened flora is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of Ministerial Guideline Number 1 and Ministerial Guideline Number 2 that adopts the use of the International Union for Conservation of Nature (IUCN) Red List of Threatened Species Categories and Criteria, and is based on the national distribution of the species.

CR **Critically endangered species**

Threatened species considered to be "*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.

EN **Endangered species**

Threatened species considered to be "*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.

VU **Vulnerable species**

Threatened species considered to be "*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.

Extinct species

Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.

EX **Extinct species**

Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

EW **Extinct in the wild species**

Species that *"is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild.

Specially protected species

SP **Specially protected species**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered, or vulnerable) or extinct species under the BC Act cannot also be listed as specially protected species.

MI **Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Migratory species include birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) or The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

CD **Species of special conservation interest (conservation dependent fauna)**

Species of special conservation need that are dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Currently only fauna are listed as species of special conservation interest.

OS **Other specially protected species**

Species otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Currently only fauna are listed as species otherwise in need of special protection.

Priority species

P **Priority species**

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department's website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

Species that are adequately known, meet criteria for near threatened, or are rare but not threatened, or that have been recently removed from the threatened species list or conservation dependent or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of priority status is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 **Priority One - Poorly-known species – known from few locations, none on conservation lands**

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 **Priority Two - Poorly-known species – known from few locations, some on conservation lands**

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, for example, national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

P3 **Priority Three - Poorly-known species – known from several locations**

Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. These species need further survey.

P4 **Priority Four - Rare, Near Threatened and other species in need of monitoring**

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as a conservation dependent specially protected species.

(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.

(d) Other species in need of monitoring.

Principles for clearing native vegetation:

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

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.

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

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

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

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

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

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