



Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	4526/7
Permit type:	Purpose permit
Applicant name:	Sandfire Resourced Limited
Application received:	20 February 2026
Application area:	35 hectares
Purpose of clearing:	Borefield operation, decommissioning of infrastructure, and associated activities
Method of clearing:	Mechanical removal
Tenure:	Miscellaneous Licence 52/125 Miscellaneous Licence 52/137 Miscellaneous Licence 52/152
Location (LGA area):	Shire of Meekatharra
Colloquial name:	DeGrussa Copper-Gold Project

1.2. Description of clearing activities

Clearing permit CPS 4526/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Petroleum and Exploration) on 22 September 2011 and was valid from 15 October 2011 to 15 October 2016. The permit authorised the clearing of up to 18 hectares of native vegetation within a boundary of approximately 69 hectares, for the purpose of borefield operation and associated activities.

CPS 4526/2 was granted on 27 December 2012, increasing the area of clearing authorised by 12 hectares, to a total of 30 hectares. The amendment also increased the permit boundary up to an area of 509 hectares.

Clearing permit CPS 4526/3 was granted on 16 May 2013, amending the annual permit reporting period and due date.

Clearing permit CPS 4526/4 was granted on 5 September 2013, increasing the area of clearing authorised by 5 hectares, to a total of 35 hectares (within a permit boundary of approximately 537 hectares).

Clearing permit CPS 4526/5 was granted on 25 August 2016, extending the permit duration by five years, until 30 June 2021.

Clearing permit CPS 4526/6 was granted on 6 May 2021, extending the permit duration by five years, until 30 June 2026.

On 20 February 2026, the Permit Holder applied to amend CPS 4526/6 to extend the permit duration by a further five years and to change the purpose of the clearing for borefield operation, decommissioning of infrastructure, and associated activities. The permit boundary was reduced from approximately 537 hectares to approximately 141 hectares. The amount of clearing remains the same.

Based on the most recent annual clearing report (reporting period 1 January 2025 to 31 December 2025, received 20 March 2025), a total of 10.41 hectares of native vegetation have been cleared under previous versions of the permit.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	9 June 2026
Decision area:	35 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 7 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) including the results of a flora and vegetation survey (**Error! Reference source not found.**), the clearing principles set out in Schedule 5 of the EP Act (Appendix C), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

The assessment has not changed since the assessment for previous versions of the permit. The Delegated Officer determined that the proposed extension of duration is not likely to lead to an unacceptable risk to environmental values.

1.5. Site map

A site map of proposed clearing is provided in Figure 1 below.

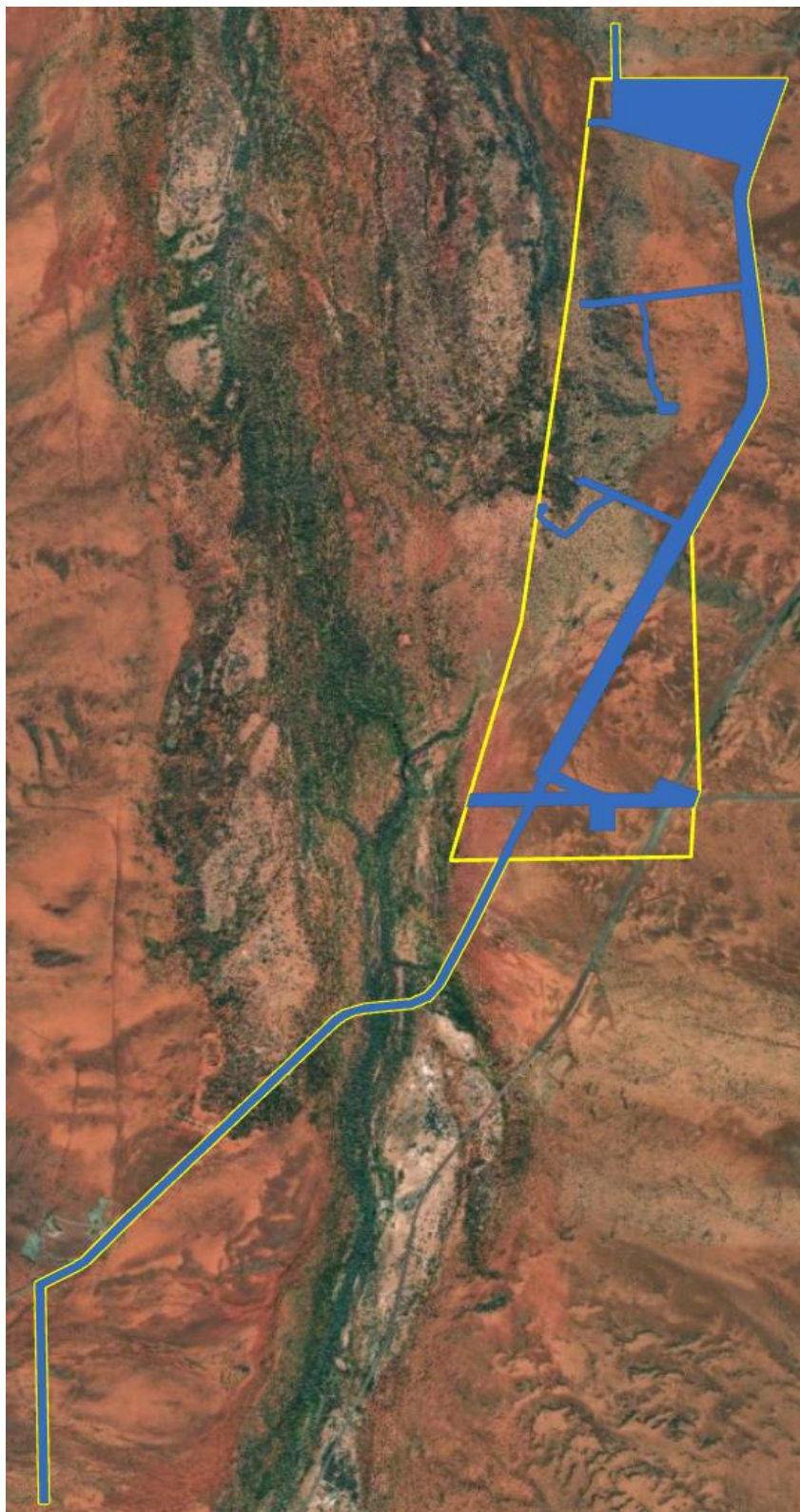


Figure 1. Map of the application area. The yellow area indicates the area approved to clear under CPS 4526/6. The blue area indicates the area within which conditional clearing can occur under CPS 4526/7.

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)*
- *Conservation and Land Management Act 1984 (WA) (CALM Act)*
- *Mining Act 1978 (WA)*
- *Rights in Water and Irrigation Act 1914 (RIWI Act)*

The key guidance documents which inform this assessment are:

- A guide to the assessment of applications to clear native vegetation (DER, 2014)
- Procedure: Native vegetation clearing permits (DWER, 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)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The Permit Holder reduced the permit boundary which represents a reduction in environmental risks associated with the proposed clearing. A supporting document submitted by the applicant explains the actions taken in the DeGrussa Cooper Project to avoid and minimise the impact and extent of clearing, shown below (Sandfire, 2026).

- The DeGrussa Copper Project utilises an internal permitting system to authorise land disturbance, which provides an opportunity to further evaluate the need to clear native vegetation prior to an activity being undertaken.
- Existing cleared or disturbed areas are utilised in preference to clearing new areas.
- Internal permitting procedures requires employees and contractors to pre-plan development and clearing activities to minimise impact on vegetation and avoid areas of high environmental value.
- When clearing is undertaken, survey control and supervision is utilised during active clearing to ensure that no unnecessary clearing occurs and that boundaries are strictly adhered to.
- Weed hygiene inspections are performed on all ground engaging machinery and vehicles mobilised to the Project site.
- Known weed populations are controlled on-site through both manual removal of vegetative matter and/or spraying of selective herbicides.
- General movement of vehicles onsite is restricted to designated roads and tracks, to avoid the inadvertent introduction of weeds.
- If fill material is required, it is sourced from designated weed-free locations.
- The location of significant flora and vegetation is queried as part of the internal permitting system process, and actions are taken to avoid or minimise the impact to this flora.
- Clearing is staged or progressed directional to allow mobile fauna to escape the area safely.
- Where possible, habitat features, such as hollow-bearing trees and large logs, are retained or salvaged for use in rehabilitation.

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 4526/6 or previous versions. All the clearing necessary to build the borefield has been completed. The clearing permit extension is required for the continued operation of the borefield, maintenance of tracks and future decommissioning activities which might require new clearing. The proposed amendment is unlikely to result in unacceptable environmental impacts and any potential impacts from further clearing can be managed by standard mitigation and weed hygiene measures, as well as a vegetation management condition to avoid impacts to riparian vegetation where possible and maintain water flows.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 1 May 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 four native title claims (WC1999/013, WC2006/002, WC2020/003, and WC2022/003) over the area under application (DPLH, 2026). Two of these claims have been determined by the Federal Court on behalf of the claimant groups (Nharnuwangga Wajarri and Ngarlawangga and Gingirana) and the other two have been registered with the National Native Title Tribunal on behalf of the claimant groups (Yugunga-Nya People and Gingirana). 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 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
In accordance with the mitigation hierarchy, the Permit Holder provided a reduced permit boundary, bringing the permit area footprint down from approximately 537 hectares to approximately 141 hectares.	The reduction of the permit boundary also represents a reduction in environmental risks associated to the proposed clearing.

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 surrounded by the vegetation and landscape of the Augustus subregion in the Gascoyne bioregion, and it is west of the existing DeGrussa Mine (GIS Database). The dominant land use of this subregion is mainly native pasture grazing (84.2%), with lesser areas of Unallocated Crown Land and Crown Reserves (9.76%) (CALM, 2002).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).
Conservation areas	The application area intersects the Doolgunna ex pastoral lease which is proposed to be included in the National Reserve System but the gazettal is still in progress (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation associations:</p> <p>18: Low woodland; mulga (<i>Acacia aneura</i>); and</p> <p>29: Sparse low woodland; mulga, discontinuous in scattered groups (GIS Database).</p> <p>A flora and vegetation survey was conducted over the application area by Mattiske Consulting Pty Ltd (Mattiske) during August, 2009, as well as January, March and May 2010. The following vegetation associations were recorded within the application area (MBS Environmental, 2011):</p> <p>C4: Scrub of <i>Acacia aneura</i> var. <i>aneura</i>, <i>Acacia aneura</i> var. <i>conifera</i>, <i>Acacia aneura</i> var. <i>microcarpa</i>, <i>Acacia cyperophylla</i> over <i>Psyrax latifolia</i>, <i>Eremophila galeata</i>, <i>Ptilotus obovatus</i> and mixed grasses with occasional emergent <i>Corymbia candida</i> subsp. <i>dipsodes</i> on flow-lines with ironstone and dolerite pebbles on red clay loam.</p> <p>C5: Woodland of <i>Eucalyptus victrix</i> with emergent <i>Corymbia candida</i> subsp. <i>dipsodes</i> over <i>Acacia ramulosa</i>, <i>Acacia tetragonophylla</i>, <i>Acacia xanthocarpa</i> and <i>Acacia aneura</i> var. <i>microcarpa</i> over <i>Isotropis forrestii</i> and <i>Eremophila galeata</i> over mixed grasses on major flow-lines with red/brown clay loam soil.</p> <p>LW1: Low woodland of <i>Acacia aneura</i> var. <i>aneura</i>, <i>Acacia aneura</i> var. <i>microcarpa</i>, <i>Acacia pruinocarpa</i> and <i>Grevillea berryana</i> over <i>Eremophila foliosissima</i>, <i>Eremophila forrestii</i> subsp. <i>forrestii</i> and <i>Eremophila galeata</i> over <i>Ptilotus</i> species and mixed grasses on red/brown sandy loam flats with ironstone pebbles.</p> <p>LW3: Low woodland of <i>Acacia aneura</i> var. <i>microcarpa</i>, <i>Acacia pruinocarpa</i>, <i>Acacia sibirica</i>, <i>Acacia xanthocarpa</i>, <i>Grevillea berryana</i> with occasional emergent <i>Corymbia candida</i> subsp. <i>dipsodes</i> and <i>Corymbia ferriticola</i> over <i>Eremophila jucunda</i> subsp. <i>jucunda</i>, <i>Eremophila forrestii</i> subsp. <i>forrestii</i>, <i>Eremophila margarethae</i>, <i>Ptilotus schwartzii</i>, <i>Solanum lasiophyllum</i> and <i>Ptilotus obovatus</i> over mixed grasses on hills and flats with red/brown clay loam soil with ironstone and quartz (rarely).</p> <p>S1: Open scrub of <i>Grevillea berryana</i>, <i>Acacia aneura</i> var. <i>aneura</i> and <i>Acacia kempeana</i> over <i>Eremophila incisa</i>, <i>Eremophila margarethae</i>, <i>Eremophila forrestii</i> subsp. <i>forrestii</i>, <i>Ptilotus obovatus</i> and <i>Ptilotus schwartzii</i> over <i>Aristida contorta</i> and <i>Monachather paradoxus</i> on red/brown sandy loam flats with dolerite, ironstone and quartz (rarely) pebbles.</p> <p>S3: Open scrub of <i>Acacia aneura</i> var. <i>aneura</i>, <i>Acacia ramulosa</i> and <i>Acacia tetragonophylla</i> over <i>Eremophila galeata</i> and <i>Senna artemisioides</i> subsp. <i>helmsii</i> over <i>Chrysopogon fallax</i> on red/brown clay loam flats.</p> <p>S8: Open scrub of <i>Acacia tetragonophylla</i> and <i>Acacia ramulosa</i> over <i>Eremophila galeata</i> with occasional emergent <i>Psyrax latifolia</i> and <i>Eucalyptus lucasii</i> over mixed shrubs and grasses on flats of red/brown clay soils.</p>
Vegetation condition	Vegetation surveys of the application area found the vegetation to be in degraded to excellent condition (Trudgen, 1991).

Characteristic	Details
	The full Trudgen (1991) condition rating scale is provided in Appendix D.
Climate and landform	The climate of the Augustus subregion is described as a desert climate with bimodal rainfall, with the nearest weather station recording an average rainfall of approximately 233.1 millimetres per year (BoM, 2026; CALM, 2002).
Soil description	The soil within the application area is mapped as red shallow sandy duplex, red-brown hardpan shallow loam, very shallow soil over calcrete, and calcareous shallow sand (DPIRD, 2026).
Land degradation risk	The application area falls within the Three Rivers, Gascoyne, and Warri land systems (DPIRD, 2026).
Waterbodies	The desktop assessment and aerial imagery indicated that five, non-perennial watercourses transect the area proposed to be cleared.
Hydrogeography	The application area is located within the East Murchison Ground Water Area and Gascoyne River and Tributaries Surface Water Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). The groundwater salinity is mapped as 500-1000 milligrams per litre total dissolved solids which is described as fresh to marginal (BoM, 2019; GIS Database).
Flora	There is a record of one Priority flora within the application area (GIS Database). Five Priority flora species were recorded within the greater Doolgunna project area, but none were recorded within the application area (Mattiske, 2010).
Ecological communities	The application area is within the buffer of two Priority Ecological Communities (PECs). These PECs are the Robinson Range vegetation complexes (banded ironstone formation) (Priority 1) and the Doolgunna calcrete groundwater assemblage type on Gascoyne palaeodrainage on Doolgunna Station (Priority 1) (GIS Database).
Fauna	There are no records of fauna of conservation significance within the application area. The field survey did not record any conservation significant fauna in the application area (Ninox Wildlife Consulting, 2011; GIS Database).
Fauna habitat	The fauna habitat type mapped over the majority of the application area is described as Mulga (<i>Acacia aneura</i>) scrub or low woodland over various <i>Eremophila</i> species on red/brown soils (MBS Environmental, 2011; Ninox Wildlife Consulting, 2011).

B.2. Ecological community analysis table

The buffers of the following Priority Ecological Communities intersect the application area (GIS Database).

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Are surveys adequate to identify? [Y, N, N/A]
Robinson Range vegetation complexes (banded ironstone formation)	P1	N	N/A	N	<1 km	Y
Doolgunna calcrete groundwater assemblage type on Gascoyne palaeodrainage on Doolgunna Station	P1	N	N/A	N	<1 km	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, CO: collapsed (MBS Environmental, 2011).

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (a):</u> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain conservation significant flora, fauna, or ecological communities (Mattiske, 2010; MBS Environmental, 2011; Ninox Wildlife Consulting, 2011; GIS Database). Given that the application area does not occur on a banded ironstone formation (GIS Database), the Robinson Range PEC is unlikely to occur within the application area. MBS Environmental (2011) has undertaken further assessment of the Doolgunna Station PEC and Sandfire Resources has mapped the outlines of outcropping calcrete in the area. No saturated calcrete was intersected in any of the groundwater exploration holes within or around the proposed borefield area (MBS Environmental, 2011). Therefore, the proposed borefield has no saturated calcrete or geology that is likely to support the subterranean fauna PEC and the proposed clearing is not likely to impact any known or mapped PECs (MBS Environmental, 2011).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 4526/6)</p>	<p>No</p>
<p><u>Principle (b):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>Mulga woodlands and shrublands are common and widespread in the arid regions of Western Australia and some of those present within the application area are in relatively poor condition due to historical grazing pressure (Ninox Wildlife Consulting, 2011). None of the habitats assessed during the reconnaissance survey appear to be of particular significance to vertebrate fauna (Ninox Wildlife Consulting, 2011).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 4526/6)</p>	<p>No</p>
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is unlikely to contain Threatened flora. No records of Threatened flora have been recorded in the application area (Mattiske, 2010; GIS Database). The closest record of a Threatened flora species is over 100 kilometres away (GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 4526/6)</p>	<p>No</p>
<p><u>Principle (d):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is no located within any mapped or known Threatened Ecological Communities (TECs). No floristic TECs were identified during the flora and vegetation survey conducted by Mattiske botanists (Mattiske, 2010).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 4526/6)</p>	<p>No</p>
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the pre-European vegetation for vegetation associations 18 and 29 is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001) as they both have over 99 per cent of pre-European vegetation remaining in the Gascoyne Bioregion and the State (Government of Western Australia, 2019). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	<p>Not at variance</p> <p>(as per CPS 4526/6)</p>	<p>No</p>
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>According to available databases, part of the application area occurs within the former Doolgunna leasehold (GIS Database). The former pastoral lease was purchased by the Department of Biodiversity, Conservation and Attractions and is managed by DBCA for biodiversity conservation (DEC, 2011).</p> <p>The proposed clearing being located within the former Doolgunna leasehold poses a risk of spreading weeds into the conservation area. Sandfire Resources NL have committed</p>	<p>May be at variance</p> <p>(as per CPS 4526/6)</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
to engaging with DBCA on the management of weeds, as well as feral animal control, bushfire prevention and closure planning (MBS Environmental, 2011).		
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Two of the seven vegetation types mapped within the application area are associated with flow lines (Mattiske, 2010). Given that five watercourses are recorded within the application area (GIS Database), the proposed clearing is likely to impact vegetation growing in, or in association with, an environment associated with a watercourse or wetland. Impacts to riparian vegetation and watercourses can be mitigated by a vegetation management condition.</p>	At variance (as per CPS 4526/6)	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The description for the land systems present in the application area has not changed since the assessment for CPS 4526/1. Given that the borefield has already been constructed and the clearing required for this amendment is for maintenance and continued operation of the borefield, as well as decommissioning infrastructure, the proposed amendment is not likely to cause appreciable land degradation.</p>	Not likely to be at variance (as per CPS 4526/6)	No
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p> <p>No permanent watercourses, wetlands or Public Drinking Water Source Areas are recorded within the application area (GIS Database) and that all the local watercourses are ephemeral and likely to carry runoff following significant rainfall events (MBS Environmental, 2011). Given the borefield has already been constructed and the clearing required for this amendment is for maintenance and continued operation of the borefield, as well as decommissioning infrastructure, the proposed amendment is not likely to cause deterioration in the quality of surface or underground water.</p>	Not likely to be at variance (as per CPS 4526/6)	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>The application area is situated in a semi-arid region where the pan evaporation rates are 12 to 15 times greater than the average annual rainfall (MBS Environmental, 2011). This environment typically results in a low recharge rate (MBS Environmental, 2011).</p> <p>On a larger scale, the application area is located within the Gascoyne River catchment area (GIS Database). Given the size of the area to be cleared (35 hectares) in relation to the size of the catchment area (8,039,088 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding or its intensity on a catchment scale.</p>	Not likely to be at variance (as per CPS 4526/6)	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.

Condition	Description
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):

- Clearing Instruments Activities (Areas Approved to Clear) (DWER-076)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments - Catchments (DWER-028)
- IBRA Vegetation Statistics
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Native Title (Determination) (LGATE-066)
- Native Title (Fed Court) (LGATE-005)
- Native Title (NNTT) (LGATE-004)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- Reserves (LGATE-227)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Soil Landscape Mapping - Systems (DPIRD-064)
- Surface Water Management Areas (DWER-041)
- Townsites (LGATE-248)
- WA Now Aerial Imagery

Restricted GIS Databases used:

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

E.2. References

- Bureau of Meteorology (BoM) (2019) Bureau of Meteorology Website – Groundwater Information – Average Salinity. Bureau of Meteorology. <https://www.bom.gov.au/water/groundwater/insight/metadata.shtml> (Accessed 13 May 2026).
- Bureau of Meteorology (BoM) (2026) Bureau of Meteorology Website – Climate Data Online, Meekatharra Station (Number 7149). Bureau of Meteorology. <https://reg.bom.gov.au/climate/data/> (Accessed 6 May 2026).
- Conservation and Land Management (CALM) (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Environment and Conservation DEC (2011) Advice for Sandfire Resources - Purpose Permit Application: DeGrussa Copper-Gold Project Borefield. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum (DMP), Received 8 August 2011. Department of Environment and Conservation, Western Australia.
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Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety (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	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

DBCAs (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.