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:	10833/1
Permit type:	Purpose Permit
Applicant name:	Newcam Minerals Pty Ltd
Application received:	15 November 2024
Application area:	9.65 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 52/236
Location (LGA area):	Shire of Meekatharra
Colloquial name:	Mount Gould Iron Project

1.2. Description of clearing activities

Newcam Minerals Pty Ltd proposes to clear up to 9.65 hectares of native vegetation within a boundary of approximately 15.779 hectares, for the purpose of mineral production and associated activities. The project is located approximately 145 kilometres northwest of Meekatharra, within the Shire of Meekatharra.

The application is to allow for the expansion of an existing mine pit (Pit 1), widening a haul road leading to the mine pit (Pit 1), and expanding the existing waste rock dump (WRD) at the Mount Gould Iron Ore Project (MGIOP) (see Figure 1 of Section **Error! Reference source not found.**) (Newcam Minerals, 2024).

1.3. Decision on application and key considerations

Decision:	Refuse
Decision date:	9 October 2025
Decision area:	9.65 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) (now the Department of Mines, Petroleum and Exploration (DMPE)) advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix B), relevant datasets (Appendix F), supporting information provided by the applicant (Appendix A) including the results of a flora and vegetation survey (Appendix E and Appendix F) and fauna and habitat survey (Appendix E), 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 0). The Delegated Officer also took into consideration the purpose of the clearing is for the expansion of an existing mine and that limited public benefit would result from the proposed clearing.

The assessment identified that the proposed clearing will result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- fragmentation and clearing of the vegetation associations representative of the Priority 1, Priority Ecological Community (PEC) 'Mount Gould BIF';
- indirect impacts to known conservation significant flora specimens; and
- clearing of habitat for known conservation significant flora populations.

The assessment also identified that the proposed clearing may result in:

- clearing of potential short-range endemic (SRE) fauna habitats;
- indirect disturbance of a known peregrine falcon breeding site; and
- potential land degradation in the form of water erosion and downslope water starvation.

In response to increasing pressure on environmental values and the increased recognition of the needs of threatened species and biodiversity, especially in restricted habitats such as isolated banded ironstone formations, clearing that has a significant impact on the environment is generally not supported unless there is good reason for allowing the impacts, such as public benefit or an underlying State planning instrument or policy that identifies the area as a priority area that should be developed. With consideration to the above, DMPE is of the view that the purpose for which the clearing is proposed is not justified in the context of the environmental impacts, particularly the loss of vegetation associated with Mount Gould BIF PEC and H1 vegetation type.

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 is likely to lead to long-term adverse impacts to the Mount Gould BIF PEC and vegetation type H1. The Delegated Officer also determined that the proposed clearing may impact SRE fauna. In this case, the Delegated Officer considers that, on balance, the environmental impacts associated with the proposed clearing are unacceptable and it would not be appropriate to mitigate them using an environmental offset. This is supported by the WA Offsets Policy, which states that offsets are not appropriate for all projects.

Noting the above, the Delegated Officer determined to refuse to grant a clearing permit. This position aligns with the objects and principles under section 4A of the EP Act, particularly the precautionary principle, which states that, "as where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation."

1.5. Site maps

Site maps of proposed clearing are provided in Figures 1 and 2 below.

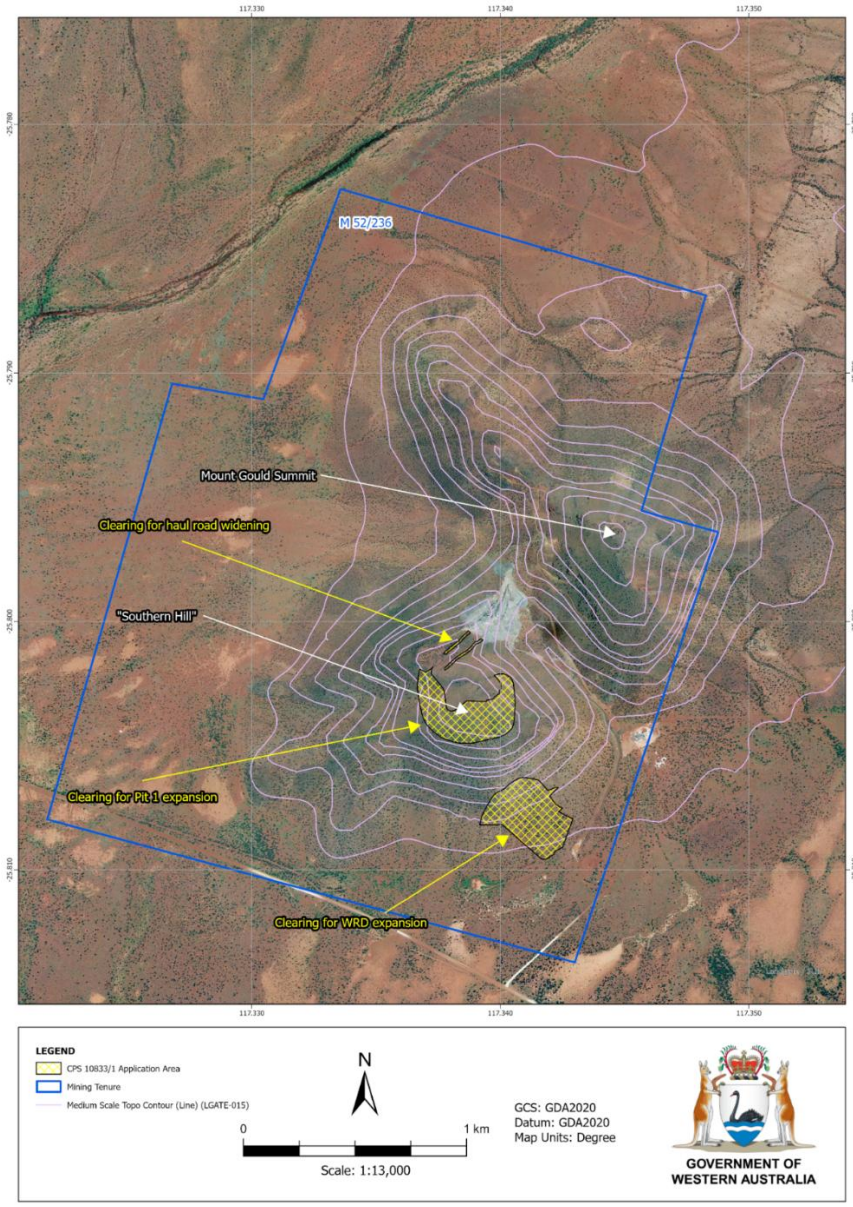

Figure 1. Map of the application area. The yellow cross-hatched area indicates the application area. Labels show clearing purpose (yellow) and topographical locations (white) within the tenement (Mining Lease 52/236).

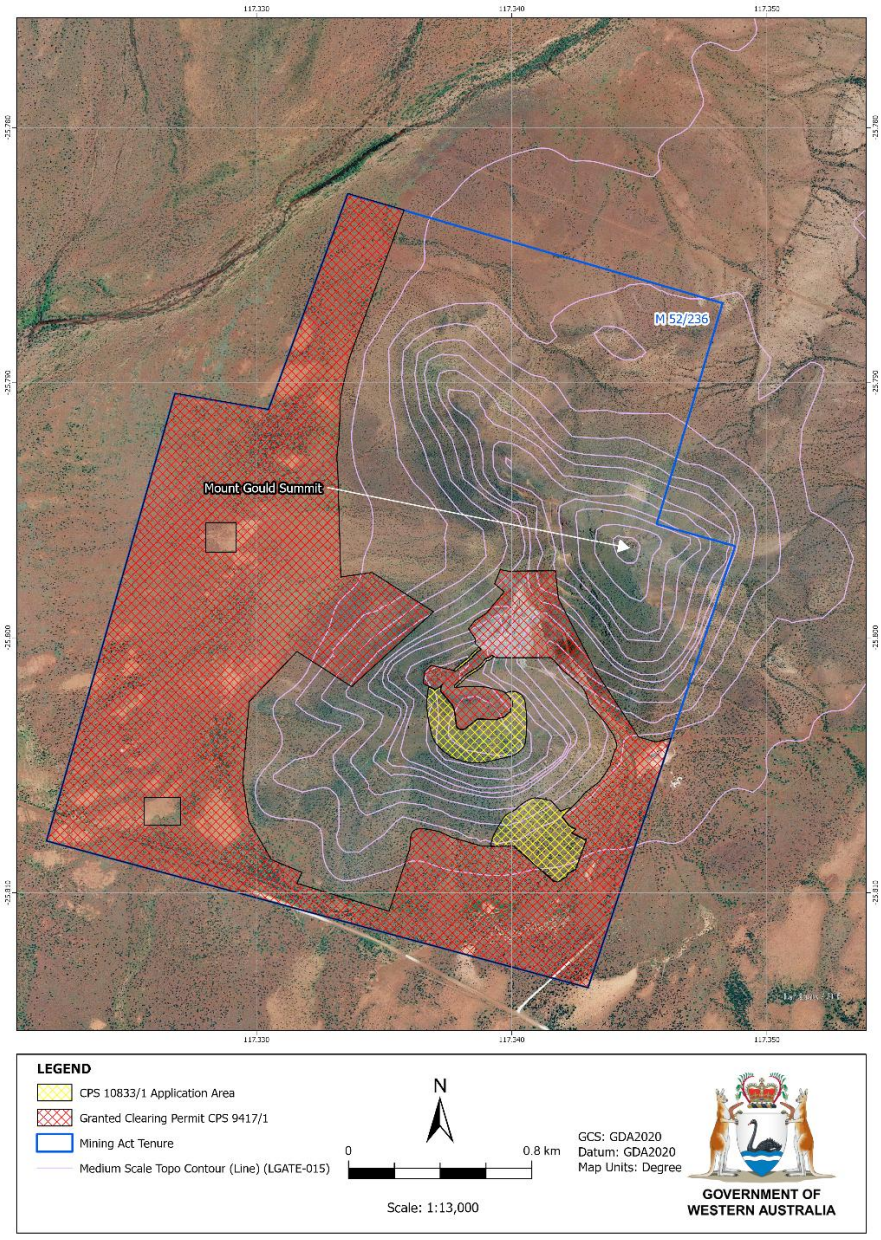

Figure 2. Map of the application area showing other clearing permit areas on the Mount Gould Iron Project tenement (Mining Lease 52/236). The yellow cross-hatched area indicates the application area. The red cross-hatched area indicates the adjacent active Newcam Minerals Pty Ltd clearing permit, CPS 9417/1. The Mount Gould Summit is labelled for positional reference.

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)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

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)
- Environmental Offsets Guidelines (EPA, August 2014)
- 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 following management measures were submitted by the applicant (MBS Environmental, 2024):

- **Biodiversity management measures:**
  - clearing activities will be carried out in accordance with best industry practice;
  - clearing of native vegetation within the Purpose Permit Area will not exceed 9.65 ha;
  - the Purpose Permit Area has been designed to avoid and/or minimise vegetation types of high conservation value;
  - utilising existing disturbed areas to reduce impacts to significant flora and vegetation;
  - clearing activities will be supervised by Traditional Owners;
  - clearly delineating clearing areas with survey pegs and/or flagging tape;
  - stockpiling stripped topsoil and vegetation for use in future rehabilitation activities;
  - implement an internal clearing register to record the amount of clearing undertaken and report the cumulative total in the Annual Environmental Report (AER) and NVCP Annual Clearing Report, submitted to DEMIRS (now DMPE);
  - vehicle and equipment hygiene procedures will be implemented to minimise entry and or spread of weeds in the Purpose Permit Area;
  - as disturbed areas become available for rehabilitation, stockpiled topsoil and vegetation will be spread to act as a seed source and mulch to protect the soil from erosion and provide habitat for fauna;
  - implementing dust control measures;
  - implementing speed limits to minimise dust emissions and to minimise the risk of fauna injury or death due to vehicle traffic; and
  - all personnel will undertake a site induction which will include detail on the importance of flora and fauna management.
- **Fauna management measures:**
  - clearing activities will be carried out in accordance with best industry practice;
  - the Purpose Permit Area has been designed to avoid fauna habitats of conservation significance where practicable;
  - utilising existing disturbed areas to avoid significant fauna habitat where possible;
  - clearing activities will be supervised by Traditional Owners;
  - implement an internal clearing register to record the amount of clearing undertaken and report the cumulative total in the Annual Environmental Report (AER) and NVCP Annual Clearing Report, submitted to DEMIRS (now DMPE);
  - vehicle and equipment hygiene procedures will be implemented to minimise entry and or spread of weeds in the Purpose Permit Area;
  - implementing speed limits to minimise dust emissions and to minimise the risk of fauna injury or death due to vehicle traffic; and
  - all personnel will undertake a site induction which will include detail on the importance of flora and fauna management.
- **Significant flora management measures:**
  - clearing activities will be carried out in accordance with best industry practice;
  - the Purpose Permit Area has been designed to avoid clearing impacts on significant flora;
  - clearing activities will be supervised by Traditional Owners;
  - clearly marking in the field and recording GPS locations of significant flora individuals near proposed clearing to avoid accidental disturbance;
  - clearly delineating clearing areas with survey pegs and/or flagging tape;
  - vehicle and equipment hygiene procedures will be implemented to minimise entry and or spread of weeds in the Purpose Permit Area; and
  - all personnel will undertake a site induction which will include detail on the importance of flora and fauna management.
- **Mount Gould PEC management measures:**
  - clearing of native vegetation within the Purpose Permit Area will not exceed 9.65 ha;
  - cumulative impacts, including Stage 1 and 2 clearing will not exceed 146.15 ha;
  - the Purpose Permit Area has been designed to avoid and/or minimise vegetation types representative of the PEC;
  - clearly delineating clearing areas with survey pegs and/or flagging tape; and
  - collection of seed from local species for use in future rehabilitation activities and implementation of rehabilitation trials where considered necessary.
- **Land degradation management measures:**
  - clearing activities will be carried out in accordance with best industry practice;

    - the indicative clearing footprint has been designed to minimise the amount of clearing as much as possible whilst allowing for safe operations, given the topographic constraints;
    - confining vehicle movements to defined roads and tracks;
    - stockpiling topsoil and stripped vegetation for reuse in rehabilitation where sufficient soil is available for stripping;
    - as disturbed areas become available for rehabilitation, stockpiled topsoil and vegetation will be spread over disturbed areas to act as a seed source and mulch to protect the soil from erosion;
    - establishment of surface water management infrastructure to direct surface water flow to natural drainage channels;
    - monitoring of high-risk erosion events, such as extreme weather, to mitigate impacts as far as reasonably practicable;
    - minimising area for vegetation clearance;
    - dust suppression via water cart where practicable;
    - conducting soil-stripping activities during periods of low winds;
    - vehicle and equipment hygiene procedures will be implemented to minimise entry and or spread of weeds in the Purpose Permit Area; and
    - scarifying compacted soil prior to rehabilitation.
- **Surface and groundwater quality management measures:**
    - clearing activities will be carried out in accordance with best industry practice;
    - diversion drains will be constructed where necessary to redirect clean water flows around the proposed WRD expansion;
    - refuelling and maintenance activities will continue to be conducted using drip trays, liners, bunds, or spill mats to minimise hydrocarbon spillage and contamination of surface and groundwater;
    - vehicles and machinery will be subject to pre-start checks and scheduled maintenance to ensure adequate function and condition and to reduce occurrence of hydrocarbon and chemical spills;
    - waste will be removed from site and appropriately disposed;
    - progressive rehabilitation of completed surfaces to minimise active areas exposed where possible; and
    - natural surface water drainage channels/patterns will be reinstated during rehabilitation.
- **Flooding management measures:**
    - clearing activities will be carried out in accordance with best industry practice;
    - the Purpose Permit Area has been designed with consideration to drainage lines and flood levels with the aim of minimising disturbance of these areas;
    - existing flow paths will be maintained where possible;
    - diversion drains will be constructed to redirect clean water flows from rainfall events around the proposed WRD expansion to reduce localised pooling/flooding;
    - progressive rehabilitation of completed surfaces to minimise active areas exposed where possible; and
    - natural surface water drainage channels/patterns will be reinstated during rehabilitation.

The Delegated Officer notes that rehabilitation works proposed as a biodiversity management measure are unlikely to be successful in mitigating the impacts to the PEC and the H1 community as there is no evidence of successful sustained rehabilitation of BIF communities, and it is unlikely that upper slope communities can be rehabilitated to a state that achieves a similar floristic structure and diversity to the pre-mining communities (DBCA, 2023a; 2025a; Gibson et al., 2015; GoWA, 2008). It is unrealistic to consider mining development to be a temporary disturbance to a BIF ecosystem, the proposed clearing will likely result in the permanent loss of these communities (DBCA, 2023a; GoWA, 2008). Additionally, there is no proposed rehabilitation of Pit 1, which intercepts the PEC representative vegetation types, H1 and H3 (Biologic, 2023; MBS Environmental, 2025a; 2025b; Figure 4 of Appendix F).

Following correspondence between the applicant and DMPE, an additional avoidance and mitigation measure was submitted by the applicant (Appendix A). The applicant was willing to commit to avoiding areas of the H1 vegetation type which occur within the existing Clearing Permit CPS 9417/1 permit boundary and are not required to be cleared for the pit cutback (Figure 3; Appendix A). This would result in a 0.59 hectare reduction of the H1 vegetation type cumulative impact area (Figure 3; Appendix A).

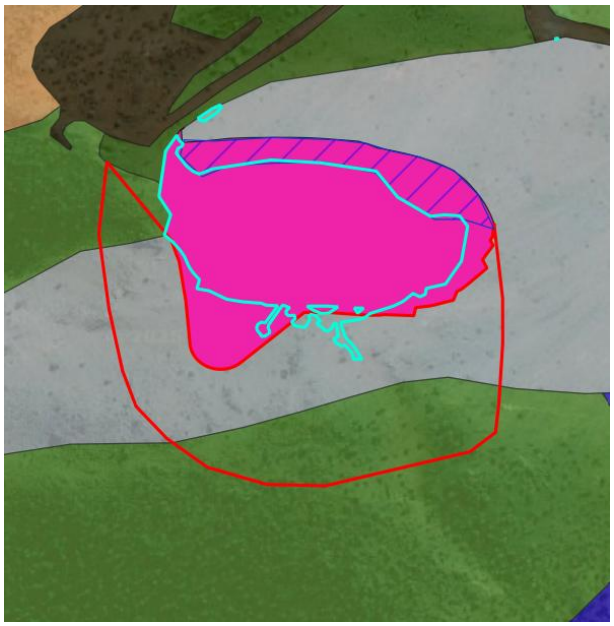

Figure 3. The proposed minimisation of the H1 vegetation type cumulative impact area (CPS 9417/1 and CPS 10833/1). The H1 vegetation type is represented by grey and pink shading. The area approved to clear (within the H1 vegetation type) under Clearing Permit CPS 9417/1 is represented by pink shading. The light blue outline indicates clearing of the H1 vegetation type under Clearing Permit CPS 9417/1 to date. The red outline indicates the proposed clearing under Clearing Permit CPS 10833/1. The blue striped area is the 0.59 hectare area of the H1 vegetation type the applicant is willing to commit to avoiding (Appendix A).

The Delegated Officer acknowledged the avoidance and mitigation efforts by the applicant, however, considers that a significant residual impact to the Priority 1 PEC 'Mount Gould BIF' and the H1 vegetation type still remains.

It is noted that offsets were considered in this assessment but were considered unsuitable to offset the residual impacts of this application (Section 4).

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles identified that the impacts of the proposed clearing present a risk to biological values (ecological communities and vegetation, fauna, and flora). The consideration of these impacts is set out below.

3.2.1. Biological values (ecological communities and vegetation) - Clearing Principle (a)

Assessment

Mount Gould BIF PEC

Mount Gould BIF PEC occurrence

The application area intersects Priority 1 PEC 'Mount Gould BIF' (GIS Database). This PEC is threatened by clearing for mining activities, and the Mount Gould formation is the only occurrence of this PEC, with the DBCA mapping of this community showing the PEC has an area of 8.79 square kilometres (GIS Database). However, DBCA (2023a) states that the vegetation types of the Biologic (2023) flora and vegetation survey are a better representation of the extent of this PEC, compared to DBCA mapping of this community.

Of the vegetation types identified in the Biologic (2023) flora and vegetation survey, H1, H2 and H3 are representative of this PEC, and S1, S2 and S3 are possibly representative of this PEC (descriptions of vegetation types can be found in Appendix E). When considering PEC representative vegetation types, the Area of Occupancy (AOO) of the PEC is 1.35 square kilometres, and the Extent of Occurrence is approximately 2.48 square kilometres (ALA, 2015; Biologic, 2023; IUCN, 2024). When considering representative and possibly representative vegetation types, the AOO of the PEC is 4.43 square kilometres and the EOO is approximately 5.50 square kilometres (ALA, 2015; Biologic, 2023; IUCN, 2024). The EOO indicates the area which lies within the outermost geographic limits to the occurrence of the community, whereas the AOO is the area actually occupied by the community (ALA, 2015; Gaston & Fuller, 2009). The difference between the EOO and AOO are areas uninhabited by the community, within its extent; this may be due to habitat fragmentation or ecological constraints (ALA, 2015; Gaston & Fuller, 2009). The small EOO and AOO, and the relatively small difference between these values are characteristic of a range-restricted endemic community (Gaston & Fuller, 2009).

Conservation significance of the Mount Gould BIF PEC

As both a restricted Banded Iron Formation (BIF) community and a PEC, the Mount Gould BIF is ecologically and conservation significant due to its high biodiversity, distinctive geological and biological features, and the presence of several conservation significant flora species – some of which are endemic to the Mount Gould BIF PEC (DBCA, 2023a; 2025a; DER, 2014; GoWA, 2008).

Mount Gould is an isolated feature in the landscape, being surrounded by extensive plains (MBS Environmental, 2024; 2025b). This isolation results in a high degree of endemism, which is a reason for this PEC's significance (DBCA, 2023a; 2025a; DER, 2014; GoWA, 2008). Despite their close geographical proximity, BIF ranges in the Murchison (namely Mount Gould, Jack Hills

and Robinson Range) each have a significantly different species composition (Miessner et al., 2009). It has been found that each of these ranges have a restricted spinifex community on the upper slopes, dominated by the same species (*Triodia melvillei*), but each range has a different suite of perennial species and unique indicator species (Miessner et al., 2009).

The highly restricted nature of the Mount Gould BIF PEC (having a small AOO and EOO) increases its susceptibility to disturbance, and therefore its conservation significance (ALA, 2015; DBCA, 2025a; IUCN, 2024; Rodríguez et al., 2015). The small EOO and AOO of the community indicates that it is highly restricted (ALA, 2015; IUCN, 2024). IUCN (2024) Red List guidelines indicate that a community with an EOO of less than 100 square kilometres and an AOO of under 10 square kilometres may belong in the Critically Endangered Red List category, based on Criteria B. As the community has a EOO and AOO below these thresholds, and only occurs in one location, a decline in AOO, EOO or habitat quality would make it eligible for the Critically Endangered Red List category, based on Criteria B (IUCN, 2024; Rodríguez et al., 2015).

Impact to the Mount Gould BIF PEC
In situ conservation of BIF communities is recommended, as there is no clear understanding of the level of loss that can be sustained to BIF communities without compromising sustainability of local ecosystems and species (GoWA, 2008).

The proposed clearing will result in a significant cumulative impact to the PEC, particularly where clearing occurs in the high value vegetation types (H1, H2, H3, S1, and S3) (DBCA, 2025a). The impact to each of these vegetation types is discussed individually in the proceeding paragraphs.

Vegetation type H1
The H1 vegetation type is considered to have high local and regional significance, due to being representative of the Mount Gould BIF PEC (Biologic, 2023; DBCA, 2025a). The H1 vegetation type is also endemic to the Mount Gould BIF PEC (Biologic, 2023).

The H1 community has a total AOO of 18.20 hectares, which is mapped in three patches within the Mount Gould Iron Project tenement (Mining Lease 52/236) (Biologic, 2023; GIS Database). The area of each patch is shown in the table below:

Patch location[1]	Southern Hill	Mount Gould Summit	
Patch number	1	2	3
Area (hectares)	17.35 (of which 2.46 hectares have been cleared under CPS 9417/1[2])	0.49	0.36

[1] The location of each patch is shown in Figure 4 of Appendix F.
[2] The area of the H1 vegetation type cleared under CPS 9417/1 is shown in Figure 3 of Section 3.1. The area cleared is represented by a light blue outline.

The proposed clearing impacts only the Southern Hill patch, and does not intercept the patches on the Mount Gould Summit. The application area intercepts 4.02 hectares of the H1 vegetation type. Most of the H1 vegetation to be cleared is within the clearing area for Pit 1, with a small area to be cleared for the widening of the haul road (Newcam Minerals, 2024). The clearing for Pit 1 will bisect the Southern Hill patch (Biologic, 2023; Newcam Minerals, 2024; Figure 3 of Section 3.1; Figure 4 of Appendix F).

The direct and cumulative impacts to the H1 vegetation type is shown in the table below:

	H1 community overall	H1 community remaining[3]	H1 community within application area (CPS 10833/1)	Proposed[4] impact to H1 community (CPS 10833/1)	H1 community within cumulative[5] clearing boundary (CPS 9417/1 and CPS 10833/1)	Proposed[4] cumulative[5] impact to H1 community[6] (CPS 9417/1 and CPS 10833/1)
Mapped area (ha)	18.20	15.74	4.02	2.28	7.24	4.91
Percentage of total mapped area (%)	100	86.48	22.09	12.53	39.78	26.98

[3] 2.46 hectares of the H1 vegetation type have been cleared under CPS 9417/1 (Appendix A).
[4] The proposed impacts have been disclosed by the applicant (MBS Environmental, 2025a).
[5] Cumulative impact considers the impact of this application, as well as the adjacent active Newcam Minerals Pty Ltd clearing permit (CPS 9417/1) (MBS Environmental, 2024; GIS Database).
[6] The proposed cumulative impact to the H1 community has been reduced as discussed in Section 3.1.

Direct and cumulative impacts of clearing
2.28 hectares of the H1 vegetation type is proposed to be cleared in this application (MBS Environmental, 2025a). This is a direct impact to 14.5 percent of the remaining H1 vegetation. It is considered that the proposed impact to 14.5 percent of the remaining extent of the H1 vegetation type will have a significant residual impact on the H1 vegetation type, especially when considering that this vegetation type will be fragmented by the proposed clearing. As there is no clear understanding of level of loss that can be sustained to range communities without compromising sustainability of local ecosystems and species, the proposed clearing goes against the precautionary principle (GoWA, 2008). The impact of clearing will be permanent, as Pit 1, where proposed H1 clearing is located, will not be rehabilitated (MBS Environmental, 2025a; 2025b).

As 2.46 hectares of the H1 vegetation type have been cleared under CPS 9417/1 and a further 0.17 hectares of H1 vegetation clearing is proposed under CPS 9417/1, the cumulative impact also needs to be considered (Appendix A). A cumulative 4.91 hectares (26.98 percent of the total extent) of the H1 vegetation type is proposed to be cleared. It is considered that the proposed cumulative impact to 26.98 percent of the total extent of the H1 vegetation type will have a significant residual impact on the H1 vegetation type (DBCA, 2023a). Although the applicant has proposed to reduce the cumulative impact to the H1

vegetation type, as discussed in Section 3.1, the outcome of the assessment of the impacts to the H1 community remains the same.

Impact of fragmentation
The proposed clearing will fragment the Southern Hill patch into two smaller patches (Banks-Leite et al., 2020; DBCA, 2025a). These patches will be separated by the cleared Pit 1 area, which is estimated to be approximately 240 metres wide (MBS Environmental, 2025b). Although the applicant has proposed to reduce the cumulative impact to the H1 vegetation type, as discussed in Section 3.1, the H1 vegetation type will still be fragmented. The measures discussed in Section 3.1 are considered as a positive action, but is unlikely to significantly reduce the overall risk to the community.

Fragmentation of native vegetation can lead to the degradation of remaining vegetation by increasing edge effects (Banks-Leite et al., 2020; DER, 2014; Xiao et al., 2016). Evidence of increased edge effects have already been observed onsite, with Biologic (2023) initially reporting that the H1 vegetation type was in excellent condition, and the applicant since notifying DMPE that this vegetation adjacent to Pit 1 has deteriorated since Stage 2 of the Project began (Appendix A).

Pollinators such as bees are particularly affected by habitat fragmentation (Harris & Johnson, 2007). They typically avoid crossing large areas of cleared land, so dividing the H1 vegetation community could interrupt their movement (DBCA, 2023a). The proposed clearing would likely reduce pollination, limit gene flow between plant populations, and decrease seed production and seedling recruitment (DBCA, 2023a; Harris & Johnson, 2007; Xiao et al., 2016). Smaller, isolated patches of habitat also tend to support fewer species (DER, 2014). This is especially harmful to habitat specialists, some of which are found within the H1 community (Biologic, 2023; Rybicki et al., 2019; Rye, 1999; Western Australian Herbarium, 1998–).

This impact of fragmentation will be permanent, as Pit 1, where proposed H1 clearing is located, will not be rehabilitated (MBS Environmental, 2025a; 2025b).

Vegetation type S3
Vegetation type S3 is located on the lower slopes and foothills of Mount Gould, mostly with an eastern aspect (Biologic, 2023; Appendix E; Appendix F). This vegetation type is considered to have high local and regional significance, due to being optimal habitat for *Halgania gustafsenii* var. Murchison and possibly representative of the Mount Gould PEC (Biologic, 2023; DBCA, 2025a).

The S3 community has a total AOO of 66.78 hectares, which is mapped in three patches within the Mount Gould Iron Project tenement (Mining Lease 52/236) (Biologic, 2023; GIS Database). The area of each patch is shown in the table below:

Patch location[1]	Mount Gould Slopes	Southern Hill Slopes	
Patch number	1	2	3
Area (hectares)	31.49	30.89	4.40

[1] The location of each patch is shown in Figure 4 of Appendix F.

The application area intercepts 7.28 hectares of the S3 vegetation type. The proposed clearing impacts only patch 2, and does not intercept patches 1 and 3. The S3 vegetation to be cleared is for the waste rock dump (WRD). The clearing for the WRD will bisect the patch 2 (Biologic, 2023; Newcam Minerals, 2024; Figure 4 of Appendix F).

The direct impact to the S3 vegetation type is shown in the table below:

	S3 community overall	S3 community within application area (CPS 10833/1)	Proposed[4] impact to S3 community (CPS 10833/1)	S3 community within cumulative[5] clearing boundary (CPS 9417/1 and CPS 10833/1)	Proposed[4] cumulative[5] impact to S3 community (CPS 9417/1 and CPS 10833/1)
Mapped area (ha)	66.78	7.28	5.95	21.32	19.77
Percentage of total mapped area (%)	100	10.90	8.91	31.93	29.60

[4] The proposed impacts have been disclosed by the applicant (MBS Environmental, 2025a).
[5] Cumulative impact considers the impact of this application, as well as the adjacent active Newcam Minerals Pty Ltd clearing permit (CPS 9417/1) (MBS Environmental, 2024; GIS Database).

Direct and cumulative impacts of clearing
5.95 hectares of the S3 vegetation type is proposed to be cleared in this application (MBS Environmental, 2025a). This is a direct impact to 8.91 percent of this vegetation type. It is considered that the proposed impact to 8.91 percent of extent of the S3 vegetation type is unlikely to result in a significant residual impact on the S3 vegetation type, when considered by itself. However, when considering the cumulative impact and the impact of fragmenting this community, the proposed clearing is likely to result in a significant residual impact on the S3 vegetation type.

Clearing is authorised under CPS 9417/1 until 31 October 2027 (DMIRS, 2022). A proposed 29.60 percent of the total extent of the S3 vegetation type will be cumulatively impacted under clearing permits CPS 9417/1 and CPS 10833/1. The *National Objectives and Targets for Biodiversity Conservation 2001-2005* recognise that the retention of over 30 percent of each ecological community is required to protect the biological diversity of Australia (Commonwealth of Australia, 2001; DER, 2014). However, for communities that are naturally restricted, the threshold required to conserve biodiversity may be substantially higher (DER, 2014). Additionally, there is no clear understanding of level of loss that can be sustained to range communities without compromising sustainability of local ecosystems and species (GoWA, 2008). Therefore, the clearing of 29.60 percent of this community is likely to be significant, and goes against the precautionary principle.

Impact of fragmentation
The proposed clearing will fragment Patch 2 into two smaller patches (DBCA, 2025a). These patches will be separated by the cleared WRD area (MBS Environmental, 2025b). No management measures are presented to mitigate the impact to the S3 vegetation type from fragmentation (MBS Environmental, 2024; 2025a).

Fragmentation of native vegetation can lead to the degradation of remaining vegetation by increasing edge effects (Banks-Leite et al., 2020; DER, 2014; Xiao et al., 2016). Fragmentation can also lower biodiversity as smaller, isolated patches of habitat also tend to support fewer species (DER, 2014; Rybicki et al., 2019).

Additionally, pollinators such as bees are particularly affected by habitat fragmentation (Harris & Johnson, 2007). They typically avoid crossing large areas of cleared land, so dividing the S3 vegetation community could interrupt their movement (DBCA, 2023a). This would likely reduce pollination, limit gene flow between plant populations, and decrease seed production and seedling recruitment (DBCA, 2023a; Harris & Johnson, 2007; Xiao et al., 2016).

Other vegetation types potentially impacted by the proposed clearing

Vegetation type H3
The H3 vegetation type is considered to have high local and regional significance, due to being representative of the Mount Gould BIF PEC (Biologic, 2023; DBCA, 2025a). The H3 vegetation type is also endemic to the Mount Gould BIF PEC (DBCA, 2025a; Meissner et al., 2009).

The H3 community has a total extent of 67.95 hectares (Biologic, 2023). The application area intercepts 4.16 hectares of the H3 vegetation type. The H3 vegetation to be cleared is within the clearing area for Pit 1 (Newcam Minerals, 2024).

As the H3 community is representative of the Mount Gould BIF PEC, the proposed clearing of this vegetation may result in a significant cumulative impact to the PEC (DBCA, 2025a). BIF endemic vegetation types, particularly those representative of the PEC, should be conserved in situ, whether partially or entirely, to ensure the unique and irreplaceable biodiversity values of these communities are not lost (DBCA, 2025a; GoWA, 2008).

Vegetation type P2
This vegetation type is considered to have moderate local significance, due to being optimal habitat for the Priority 3 species, *Tribulus adelacanthus* (Biologic, 2023; DBCA, 2025a).

This vegetation type has a mapped extent of 260.92 hectares (Biologic, 2023). 0.01 hectares of this vegetation type is located within the application area (Biologic, 2023). The potential clearing of less than 0.01 percent of this vegetation type is unlikely to have a significant impact on its biodiversity.

Potential indirect impacts of the proposed clearing

The H2 vegetation type is considered to have high local and regional significance, due to being representative of the Mount Gould BIF PEC (Biologic, 2023; DBCA, 2025a). This vegetation association is also optimal habitat for *Eremophila warnesii* (Priority 1) (Biologic, 2023; DBCA, 2025a). The H2 vegetation type is not directly impacted by the proposed clearing.

The S1 vegetation type is considered to have high local and regional significance, due to being optimal habitat for *Halgania gustafsenii* var. Murchison and possibly representative of the Mount Gould PEC (Biologic, 2023; DBCA, 2025a). The S1 community has a total extent of 125.4 hectares (Biologic, 2023). The application area intercepts 0.23 hectares of the S1 vegetation type. However, the applicant has informed DMPE that none of the S1 vegetation type is proposed to be cleared (MBS Environmental, 2025a). Therefore, there will no direct impact to the S1 vegetation type.

These vegetation types may be indirectly impacted by changes to upslope hydrology and dust (DBCA, 2025a); however, these are chronic impacts more closely associated with mining operations and have been addressed in the Mining Proposal (MBS Environmental, 2025a; 2025b).

Conclusion

Mount Gould BIF PEC and vegetation type H1
Based on the above assessment, the proposed clearing will result in significant cumulative impact to the PEC and its vegetation (DBCA, 2025a). The clearing of the H1 vegetation type is very high risk and will likely lead to a negative and irreversible effect on the Mount Gould PEC (DBCA, 2023a). It is recommended that clearing within the PEC, particularly the H1 vegetation type, is avoided to avoid impacts to the PEC (DBCA, 2025a).

For the reasons set out above (and considered in Section 3.1 and Section 4), it is considered that the impacts of the proposed clearing on the Priority 1 PEC 'Mount Gould BIF' and the endemic and restricted H1 vegetation type cannot be managed to be environmentally acceptable.

Vegetation type S3
The cumulative impacts of clearing and the secondary impact of fragmentation may result in a significant impact to the S3 vegetation type.

Vegetation type H3
The proposed impact to this community is considered significant, when considering the total impact to the PEC, of which it is representative.

Vegetation types P2, H2, and S1
Vegetation type P2 is unlikely to be significant impacted by the proposed clearing, due to the small extent of clearing within this vegetation type (MBS Environmental, 2025a).

Vegetations types H2 and S1 are not proposed to be cleared under this Permit (MBS Environmental, 2024; 2025a).

Chronic, indirect impacts may affect these communities, but these impacts are more closely associated with mining operations and have been addressed in the Mining Proposal (MBS Environmental, 2025a; 2025b).

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

Assessment

A fauna habitat field assessment was conducted on 11-13 October 2022 by Biologic (2022). Five broad habitat types were identified within the application area:

- gorge/gully;
- minor drainage line;
- rocky hill;
- rocky outcrop;
- sandy plain; and
- disturbed areas (Biologic, 2022).

Descriptions of these habitats can be found in Appendix F.

With consideration for the site characteristics (see Appendix B), relevant datasets (see Appendix H.1), and biological survey information, impacts to the following conservation significant fauna required further consideration (Biologic, 2022):

Short-range endemic (SRE) fauna

***Synsphyronus* 'PSE010' (pseudoscorpion)**

Synsphyronus 'PSE010' is a pseudoscorpion and potential SRE species (Biologic, 2012a; DBCA, 2023a). This species was recorded at eight of the forty study sites in the survey area, with 15 specimens collected (Biologic, 2012a). One of these sites is located within the application area (Biologic, 2012a).

Synsphyronus 'PSE010' was located in a variety of microhabitats including leaf litter, under rocks, and soil under spinifex (Biologic, 2012a). As all microhabitats were within litter or soil, or under rocks, the species is more likely to be an SRE (DBCA, 2023a). Little is known about this taxon, and potential impacts are likely to be significant (DBCA, 2025a).

***Idiommata* 'MYG254' (brush-footed trapdoor spider)**

Idiommata 'MYG254' (brush-footed trapdoor spider) is a mygalomorph spider and potential SRE species (Biologic, 2012a; DBCA, 2023a). One individual was caught in a pit trap near the summit of the southern hill, however it is unsure whether the application area is home to a permanent population, as this individual was a mature male assumed to be a vagrant in search of breeding females (Biologic, 2012a; DBCA, 2023a).

This specimen is the only record of this taxon, and no in-depth studies of the genus have been conducted (DBCA, 2025a). As the only record is within the application area, further surveys are required to detect the extent of the *Idiommata* 'MYG254' population and to determine the potential impact to this taxon (DBCA, 2025a).

Northern shield-backed trapdoor spider

Idiosoma clypeatum (northern shield-backed trapdoor spider), Priority 3, is a poorly known mygalomorph spider, distributed throughout most of the arid Murchison bioregion (ALA, n.d.; Rix et al., 2018). It has been recorded at Jack Hills, approximately 25 kilometres south of the application area, with burrows located within heavy clay soils and beneath Eucalyptus or Acacia vegetation, on the lower hillslopes (DBCA, 2023a; 2025a; GIS Database). As suitable habitat does not occur within the application area, this species is considered unlikely to occur (DBCA, 2025a). However, further consideration is required for other *Idiosoma* species, which could occur within the application area (DBCA, 2025a).

Peregrine falcon

Falco peregrinus (peregrine falcon), Other Specially Protected, is a migratory species. Within their global range, peregrine falcons can be found in a variety of habitats, including mountains, forests, cities, valleys, deserts, and coastlines (Australian Museum, 2019; NWF, n.d.). However, the peregrine falcon requires secure nest sites, usually preferring sheltered cliff faces, to lay its eggs (Australian Museum, 2019).

Peregrine falcon nesting sites have been identified at the summit of Mount Gould, approximately 880 metres from the Pit 1. An adult pair of peregrine falcons were observed during the fauna survey by Biologic (2022), near the summit of Mount Gould and in the Biologic (2012b) fauna survey, two adults and one fledgling were observed in a similar location, and two nest sites were located. Peregrine falcons mate for life, and breeding pairs return to the same area to nest (Australian Museum, 2019; Biologic, 2012b). Therefore, the species is likely a permanent resident of the area (Biologic, 2012b, 2022).

As no falcons were located within the application area and supporting habitat is widespread in the local area, peregrine falcons and their critical habitats are unlikely to be directly impacted by the proposed clearing.

The nesting sites at the Mount Gould summit may be indirectly impacted by noise, dust and vibrations from blasting, however, these are chronic impacts more closely associated with mining operations and can be managed via the Mining Proposal under the *Mining Act 1978* (DBCA, 2023; MBS Environmental, 2025a; 2025b).

Brush-tailed mulgara

Dasycercus blythi (brush-tailed mulgara), Priority 4, are a larger carnivorous marsupial, generally found in arid regions that support *Triodia* grasslands (DEC, n.d.; DNREA, 2006). The species requires a suitable substrate for burrowing, often found on sandy plains (Pavey et al., 2012; Woolley, 2006). This species was not located during the fauna survey, but 0.10 hectares of sandy plain habitat with high burrowing suitability was located within the application area (Biologic, 2022). Although the species

may occur within the area proposed to be cleared, it is unlikely the habitat found within the application area represents significant habitat for brush-tailed mulgara, as the habitats in the study area occur more broadly in the Murchison region (MBS Environmental, 2024).

Long-tailed dunnart

Sminthopsis longicaudata (long-tailed dunnart), Priority 4, is a small carnivorous marsupial found in arid Western Australia and the Northern Territory, where it inhabits rocky areas (IUCN, 2025; van Dyck & Strahan, 2008; WAM, n.d.; Young, 1981). The nearest records of long-tailed dunnarts occur at Jack Hills, approximately 20 kilometres south of the application area (DBCA, 2025a; GIS Database).

Within the application area, the rocky outcrop habitat type provides critical habitat for long-tailed dunnarts; and rocky hills provide foraging and dispersal (supporting) habitat for long-tailed dunnarts (Biologic, 2022; DBCA, 2025a; Appendix F). There is approximately 0.69 hectares of critical habitat and approximately 13.4 hectares of supporting habitat for long-tailed dunnarts within the application area (Biologic, 2022; Appendix F).

The fauna survey by Biologic (2022) did not locate any long-tailed dunnarts within the application area, but determined that they were highly likely to occur, with further surveys required to determine presence (DBCA, 2025a). The Biologic (2022) survey consisted of opportunistic active searches and camera trapping, and did not include capture trapping as recommended for species such as *Sminthopsis longicaudata* (DBCA, 2025a; EPA, 2020). This current survey is considered inadequate for the detection of long-tailed dunnarts (DBCA, 2025a; EPA, 2020). The applicant conducted a targeted survey for long-tailed dunnart during this assessment (Appendix A). This survey included 20 motion-detecting camera traps for five nights, four nights of night spotting (head torch and thermal monocular) and collection of opportunistic data (Appendix A). No evidence of long-tailed dunnart was found during the survey (Appendix A). Additionally, camera traps have remained deployed after the team demobilised from site, and additional camera footage is available, currently spanning three weeks of recordings (Appendix A). Due to this additional survey effort, the long-tailed dunnart likelihood of occurrence has decreased, and the long-tailed dunnart is considered unlikely to occur within the application area.

Conclusion

SRE fauna: Two potential SRE fauna species occur within the application area. Further surveys are required to assess the impacts to these species, as well as other SRE fauna potentially occurring.

Peregrine falcon: A permanent peregrine falcon nesting site is located approximately 880 metres from the application area. Peregrine falcons are unlikely to be directly impacted by the proposed clearing, and indirect impacts due to clearing are unlikely to be significant.

Brush-tailed mulgara: Loss of 0.10 hectares of suitable habitat is unlikely to be detrimental to the long-term persistence of the species at a local or regional scale.

Long-tailed dunnart: After an additional targeted survey was conducted for the species, the species is considered unlikely to occur, and therefore unlikely to be impacted by the proposed clearing.

3.2.3. Biological values (flora) - Clearing Principles (a) and (c)

Assessment

Four Threatened or priority flora species were recorded during the flora and vegetation survey, conducted by Biologic (2023) from 24 August to 1 September 2022, being *Halgania gustafsenii* var. Murchison, *Eremophila warnesii*, *Tribulus adelacanthus* and *Rhodanthe sphaerocephala*. Potential impacts to these species are discussed below.

***Halgania gustafsenii* var. Murchison**

Halgania gustafsenii var. Murchison, Endangered, can be found inhabiting ironstone outcrops and steep ironstone hills (DBCA, 2025b; Western Australian Herbarium, 1998-). This species is endemic to the slopes of Mount Gould and has extent of occurrence (EOO) of approximately 8.5 square kilometres (DBCA, 2025a).

The flora survey recorded this species within the D1, F2, H2, H3, S1, S2, S3, S4, P1 and P2 vegetation types, of which, S1, S3, H3 and P2 occur within the application area (Biologic, 2023). The S1 and S3 vegetation types, which occur within the application area, are considered optimal habitat for this species (Biologic, 2023). The population size is estimated to be 18,355 individuals, based on counts from surveys in 2022 and 2023 (DBCA, 2025a; MBS Environmental, 2024). However, this is likely an overestimate, as the species is likely to be short-lived, and juveniles and adults were not differentiated in survey results (DBCA, 2025a). The nearest *Halgania gustafsenii* var. Murchison individual recorded is less than five metres from the application area (Biologic, 2023). As the applicant has advised they have completed extensive surveys over the application and surrounding area, and no records have been located within the application area, it is unlikely that *Halgania gustafsenii* var. Murchison will be directly impacted by the proposed clearing (Biologic, 2023; MBS Environmental, 2025a).

The occurrence of the S3 vegetation type on the slopes of the Southern Hill will be fragmented by the proposed clearing (Biologic, 2023; MBS Environmental, 2024). Habitat loss and fragmentation lead to habitat degradation via edge effects and are leading endangering processes in Western Australia (Banks-Leite et al., 2020; Burgman et al., 2007; Invasive Species Council, 2025). Therefore, the clearing of habitat for threatened flora species should be avoided (Invasive Species Council, 2025).

Individuals adjacent to the application area may be disturbed by secondary impacts such as dust and altered upslope hydrology (DBCA, 2025a); however, these are chronic impacts more closely associated with mining operations and can be managed via the Mining Proposal (MBS Environmental, 2025a; 2025b).

Eremophila warnesii

Eremophila warnesii, Priority 1, can be found inhabiting open scrub over red-brown clayey sand (Western Australian Herbarium, 1998-). This species has been recorded at seven locations within the Murchison and Gascoyne Interim Biogeographic Regionalisation for Australia (IBRA) regions (Western Australian Herbarium, 1998-).

Across the tenement, 13,610 individuals from 335 locations have been recorded, with the nearest location less than 20 metres from the application area (Biologic, 2023). As the applicant has advised they have completed extensive surveys over the application and surrounding area, and no records have been located within the application area, it is unlikely that *Eremophila warnesii* will be directly impacted by the proposed clearing (Biologic, 2023; MBS Environmental, 2025a).

The flora survey recorded this species within the D1, H1, H2, H3, S1, S2, S3 and P2 vegetation types, of which, S1, S3, H1, H3 and P2 occur within the application area (Biologic, 2023). The H2 vegetation type, which does not occur within the application area, is considered optimal habitat for this species (Biologic, 2023). The proposed clearing is unlikely to significantly affect the species via habitat loss, due to being found in most vegetation types within the survey area.

Tribulus adelacanthus
Tribulus adelacanthus, Priority 3, can be found inhabiting stony slopes or plains (Western Australian Herbarium, 1998-). This species has been recorded at 19 locations within the Murchison and Gascoyne IBRA regions (Western Australian Herbarium, 1998-).

Across the tenement, 2,128 individuals from 315 locations have been recorded, with the nearest location approximately 250 metres from the application area (Biologic, 2023). As the applicant has advised they have completed extensive surveys over the application and surrounding area, and no records have been located within the application area, it is unlikely that *Tribulus adelacanthus* will be directly impacted by the proposed clearing (Biologic, 2023; MBS Environmental, 2025a).

The flora survey recorded this species within the D1, F2, H2, H3, S1, S2, S3, S4, P1 and P2 vegetation types, of which, S1, S3, H3 and P2 occur within the application area (Biologic, 2023). The P1 and P2 vegetation types, of which the P2 vegetation type occurs within the application area, are considered optimal habitat for this species (Biologic, 2023). Although the P2 vegetation type intercepts the application area, less than 0.01 percent of this vegetation type is within the clearing area. Therefore, this loss of optimal habitat will likely be insignificant to the conservation of *Tribulus adelacanthus* (Biologic, 2023).

Rhodanthe sphaerocephala
Rhodanthe sphaerocephala, Priority 1, can be found inhabiting clayey loam on flats (Western Australian Herbarium, 1998-). This species has been recorded at seven locations within the Murchison and Gascoyne IBRA regions (Western Australian Herbarium, 1998-).

The flora survey recorded this species within the F1 vegetation type which does not occur within the application area (Biologic, 2023). Local records of this species occur on the flat plains around the perimeter of the Mount Gould formation (Biologic, 2023; GIS Database). As suitable habitat does not occur within the application area, and extensive surveys over the application and surrounding area, recording no *Rhodanthe sphaerocephala* within the application area, the proposed clearing is unlikely to significantly impact the conservation of *Rhodanthe sphaerocephala* (Biologic, 2023; MBS Environmental, 2025a).

Conclusion

None of the above species are likely to occur within the application area, or be directly impacted by the proposed clearing. *Halgania gustafsenii* var. Murchison may be impacted by habitat loss and habitat fragmentation. All of the above listed species may be impacted by secondary impacts such as dust and altered upslope hydrology (DBCA, 2025a); however, these are chronic impacts more closely associated with mining operations and have been addressed in the Mining Proposal (MBS Environmental, 2025a; 2025b).

3.3. Relevant planning instruments and other matters

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

There is one native title claim (WCD2017/007 - Wajarri Yamatji Part A) over the area under application (DPLH, 2025). This claim has been determined by the Federal Court on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There is one registered Aboriginal Site of Significance (Place 7450 - Mount Gould) within the application area (DPLH, 2025). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:
- A Programme of Work approved under the *Mining Act 1978*.
- A Mining Proposal / Mine Closure Plan approved under the *Mining Act 1978*.

It is 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.

4. Suitability of offsets

In response to the notice of intent to refuse, the applicant provided DMPE information of voluntary offsets Newcam Minerals are undertaking (MBS Environmental, 2025a). These offsets are the restoration of a historic pit at the site and the funding of a scientific research project on molecular assessment of *Halgania gustafsenii* var. Murchison (MBS Environmental, 2025a). However, the Delegated Officer determined that these offsets are not suitable to counterbalance the significant environmental impacts to the PEC and the H1 community (DBCA, 2025a).

An offset would not be suitable in counterbalancing the impact to the H1 vegetation community in this particular area (DBCA, 2025a). This is because this community is endemic to Mount Gould, and the Mount Gould formation is the only occurrence of the H1 vegetation community (Biologic, 2023; DBCA, 2025a; Meissner et al., 2009).

This position aligns with the WA Environmental Offsets Guidelines, which state that offsets are not appropriate in all circumstances, as some environmental values cannot be offset (EPA, 2014).

End

Appendix A. Additional information provided by applicant

During the assessment, DMPE requested further information and an intent to refuse notification was issued to the applicant. The applicant has provided the requested information and comments on the department's notification which are summarised below.

Summary of comments	Consideration of comment
Correspondence between the applicant and DMPE regarding fauna management (14 April to 1 May 2025).	Information received from the applicant is considered in the assessment of Principles (a) and (b). The information also provides context of the site, which was considered throughout assessment.
On 17 July 2025, a notice of intent to refuse was sent to the applicant. On 30 July 2025, the applicant provided their response to this correspondence issued by DMPE (MBS Environmental, 2025a).	The applicant's response (MBS Environmental, 2025a) is considered in the assessment of this application.
On 31 July 2025, the applicant submitted further information about the H1 community and proposed a commitment to avoid areas of the H1 vegetation type which occur within the Clearing Permit CPS 9417/1 permit boundary and are not required to be cleared for the pit cutback, in order to reduce the cumulative impact to the H1 community.	Avoidance and mitigation measures are considered in Section 3.1. The proposed change was sent to DBCA for further technical advice, and DBCA advised that the proposed changes do not alter their previous advice.
On 15 September 2025, the applicant informed DMPE that a targeted survey for long-tailed dunnart had been conducted over the period 11 to 19 August 2025, including 20 motion-detecting camera traps for five nights, four nights of night spotting (head torch and thermal monocular) and collection of opportunistic data. No evidence of the long-tailed dunnart was found during the survey.	Information received from the applicant is considered in the assessment of Principles (a) and (b).

Appendix B. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DMPE at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

B.1. Site characteristics

Characteristic	Details
Local context	The application area is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is located within the Western Murchison subregion of the Murchison bioregion (GIS Database). The application area is within the Mount Gould Pastoral Lease. Approximately 99% of the local area (50 kilometre radius from the application area) remains uncleared (GIS Database).
Ecological linkage	The vegetation immediately surrounding the application area and the majority of the region remains uncleared (GIS Database). However, the application area represents ecological linkages within vegetation communities. Vegetation types H1 and S3 would be fragmented by the proposed clearing (see Figure 4 of Appendix F).
Conservation areas	The application area is not located within any DBCA legislated conservation areas (GIS Database). The nearest legislated conservation area is the Jilgu National Park, approximately 99 kilometres north of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation association: 202: Scrub; wattle, tea-tree and other species (GIS Database). A flora and vegetation survey was conducted over the application area by Biologic (2023) over the period 24 August to 1 September 2022. The following vegetation associations were recorded within the application area: • S1 AaAinAf; • S3 AinApt; • H1 PhbcErltTm; • H3 AaAciAr; • P2 ArrAkApt; and • cleared land (Biologic, 2023; MBS Environmental, 2025b). Full descriptions, extent and photographs of vegetation types are provided in Appendix E.
Vegetation condition	The vegetation survey (Biologic, 2023) indicates the vegetation within the application area is in very poor to excellent (Trudgen, 1991) condition.

Characteristic	Details
	The full Trudgen (1991) condition rating scale is provided in Appendix D.
Climate and landform	The climate of the Murchison bioregion is described as arid, with the nearest weather station (Mount Gould) recording an average rainfall of approximately 213.1 millimetres per year (BoM, 2025; CALM, 2002). The application area is mapped at elevations of 400-600 metres Australian height datum (GIS Database). Land system mapping broadly describes the application area as rugged ranges and rounded hills (DPIRD, 2025; GIS database). The Mount Gould formation is made up of two main peaks, being Mount Gould and the southern hill, and a ridge extending northwest from Mount Gould (see Figure 1 of Section 1.5) (GIS Database). Of the two main proposed clearing areas, one is located on the southeastern lower slopes of the southern hill; and the other is located at the peak of the southern hill (see Figure 1 of Section 1.5) (MBS Environmental, 2024; GIS Database). The clearing for the widening of the haul road is located on northern upper slope of the southern hill (see Figure 1 of Section 1.5) (MBS Environmental, 2024; GIS Database).
Soil description	The soil of the application area is broadly mapped as 279Pe (Peak Hill System), described as rugged, sinuous ranges and rounded hills of banded ironstone and hematitic shale, supporting stunted mulga and cottonbush shrublands (DPIRD, 2025). The soil mapping of the site indicates that the soil of the Pit 1 cutback and the haul road expansion are described as stony soil/bare rock, and the soils of the WRD are described as stony soil/red-brown hardpan shallow loam (MBS Environmental, 2025b).
Land degradation risk	The red-brown hardpan shallow loam soil type, where the WRD is located within the application area, is described as having a moderate to high erosion risk after clearing of native vegetation (MBS Environmental, 2024). It is noted that as elevation increases the soils within the application area become skeletal in nature, with soil volume decreasing as a surface gravel layer becomes prominent, accompanied by the emergence of outcropping and significant rocky features (Curry et al., 1994; MBS Environmental, 2024). Therefore, the risk of soil erosion will decrease along slopes of increasing elevations (Curry et al., 1994; MBS Environmental, 2024). As Pit 1 is located in an area of hard rock on a Banded Iron Formation (BIF), soil erosion is unlikely (MBS Environmental, 2025a).
Waterbodies	The desktop assessment indicated that no permanent watercourses or waterbodies intersect the application area (GIS Database). There are two minor ephemeral drainage lines that run off the southern hill (MBS Environmental, 2025b). These both intersect the application area. Other local-scale catchments do not have defined drainage lines and instead experience sheet flow in heavy rainfall events (MBS Environmental, 2025b).
Hydrogeography	The application area is not within any mapped Public Drinking Water Source Areas (PDWSA) or legislated surface water areas. The nearest PDWSA is the Meekatharra Water Reserve located approximately 133 kilometres to the southeast of the application area (GIS Database). The application area is located within 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).
Flora	There are records of one threatened flora species and 29 priority flora species within a 50 kilometre radius of the application area (GIS Database). The nearest record is less than 20 metres from the application area (GIS Database). Four conservation significant flora species (including one threatened flora species) have been recorded in surveys including the application area, but all records are outside of the application area (Biologic, 2023).
Ecological communities	The 'Mount Gould BIF' Priority Ecological Community (PEC) occurs within the application area (MBS Environmental, 2024; GIS Database). The mapped extent of this PEC (including a 500 metre buffer) overlaps the entirety of the application area (MBS Environmental, 2024; GIS Database). One TEC occurs in the Murchison bioregion, being the Depot Springs stygofauna community (DBCA, 2023c). This community is not within the application area.
Fauna	The desktop assessment identified six conservation significant fauna species with records within a 50 kilometre radius of the application area (GIS Database). The nearest record is less than 20 metres from the application area (GIS Database).
Fauna habitat	A fauna habitat field assessment was conducted on 11-13 October 2022 by Biologic (2022). Five broad habitat types were identified within the application area: • gorge/gully; • minor drainage line;

Characteristic	Details
	• rocky hill; • rocky outcrop; • sandy plain; and • disturbed areas (Biologic, 2022). Descriptions of these habitats can be found in Appendix F.

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 - Murchison	28,120,587	28,044,823	~99	293,505	1.04
Beard vegetation associations - State					
202	448,529.31	448,343.80	~99	102,759.63	22.91
Beard vegetation associations - Bioregion (Murchison)					
202	339,742.69	339,641.41	~99	72,202.97	21.25

Government of Western Australia (2019)

B.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), and biological survey information, impacts to the following conservation significant flora required further consideration (Biologic, 2023).

The likelihood of occurrence for these species were determined by potentially suitable habitat within the application area and known regional records (Biologic, 2023; Western Australian Herbarium, 1998-; Woodman Environmental, 2009; GIS Database; Appendix E).

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Are surveys adequate to identify? [Y, N, N/A]	Likelihood of occurrence
Halgania gustafsenii var. Murchison (R. Meissner & B. Bayliss 743)	EN	Y	<1	Y	Possible – discussed in Section 3.2.3
Eremophila warnesii	P1	Y	<1	Y	Possible – discussed in Section 3.2.3
Tribulus adelacanthus	P3	Y	<1	Y	Possible – discussed in Section 3.2.3
Rhodanthe sphaerocephala	P1	N	<1	Y	Unlikely – discussed in Section 3.2.3
Acacia sp. Jack Hills (R. Meissner & Y. Caruso 4)	P1	Y	<25	Y	Possible
Calytrix verruculosa	P3	Y	<27	Y	Possible
Eremophila margarethae subsp. straight sepals (G. Cockerton & B. McLean LCH 31310)	P1	Y	<28	Y	Possible
Eremophila sp. Ironstone (G. Cockerton & B. McLean LCH 31311)	P1	Y	<28	Y	Possible
Verticordia jamiesonii	P3	Y	<9	Y	Possible
Angianthus microcephalus	P2	N	<14	Y	Unlikely
Calytrix praecipua	P3	Y	<52	Y	Unlikely
Dodonaea amplisemina	P4	Y	<34	Y	Unlikely
Eremophila petrophila subsp. densa	P3	Y	<35	Y	Unlikely

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Are surveys adequate to identify? [Y, N, N/A]	Likelihood of occurrence
Eremophila prolata	P1	Y	<49	Y	Unlikely
Frankenia confusa	P4	N	<14	Y	Unlikely
Goodenia berringbinensis	P4	N	<40	Y	Unlikely
Gunniopsis divisa	P3	Y	<44	Y	Unlikely
Hemigenia tysonii	P3	Y	<29	Y	Unlikely
Hemigenia virescens	P3	N	<44	Y	Unlikely
Homalocalyx echinulatus	P3	N	<26	Y	Unlikely
Indigofera eriophylla	P1	Y	<40	Y	Unlikely
Indigofera fractiflexa subsp. *augustensis*	P2	Y	<41	Y	Unlikely
Indigofera rotula	P3	N	<26	Y	Unlikely
Lepidium xylodes	P1	N	<29	Y	Unlikely
Prostanthera ferricola	P3	Y	<29	Y	Unlikely
Ptilotus lazaridis	P3	N	<14	Y	Unlikely
Ptilotus tetrandrus	P1	Y	<25	Y	Unlikely
Stenanthemum mediale	P1	Y	<26	Y	Unlikely

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

B.4. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), and biological survey information, impacts to the following conservation significant fauna required further consideration (Biologic, 2012a, 2022).

The likelihood of occurrence for these species were determined by potentially suitable habitat within the application area and known regional records (Biologic, 2012a, 2022; GIS Database).

Species name	Conservation status		Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Are surveys adequate to identify? [Y, N, N/A]	Likelihood of occurrence
	WA	EPBC				
Synsphyronus 'PSE010' (pseudoscorpion)	-	-	Y	0.0	Y	Known to occur – discussed in Section 3.2.2
Idiommatta 'MYG254' (trapdoor spider)	-	-	Y	0.0	Y	Known to occur – discussed in Section 3.2.2
Falco peregrinus (peregrine falcon)	OS	-	Y	0.05	Y	Possible – discussed in Section 3.2.2
Dasycercus blythi (brush-tailed mulgara)	P4	-	Y	66.3	Y	Possible – discussed in Section 3.2.2
Idiosoma clypeatum (northern shield-backed trapdoor spider)	P3	-	N	24.9	N	Unlikely – discussed in Section 3.2.2
Sminthopsis longicaudata (long-tailed dunnart)	P4	-	Y	19.6	Y	Unlikely – discussed in Section 3.2.2
Falco hypoleucos (grey falcon)	VU	-	N	6.85	Y	Unlikely
Tringa glareola (wood sandpiper)	MI	MI	N	49.2	Y	Unlikely

Species name	Conservation status		Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Are surveys adequate to identify? [Y, N, N/A]	Likelihood of occurrence
	WA	EPBC				
Hypseleotris aurea (golden gudgeon)	P2	-	N	11.2	Y	Highly unlikely

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

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 application area intersects the 'Mount Gould BIF' (Priority 1) Priority Ecological Community (PEC). The application area contains potential habitat for a number of priority flora and conservation significant fauna species.	At variance	Yes *Refer to Sections 3.2.1, 3.2.2 and 3.2.3, 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 contains potentially significant habitat for conservation significant fauna notably short-range endemic invertebrate fauna.	At variance	Yes *Refer to Section 3.2.2, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: There are records of one flora species (*Halgania gustafsenii* var. Murchison) listed under the BC Act less than 50 metres from the application area.	May be at variance	Yes *Refer to Section 3.2.3, above.*
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: The area proposed to be cleared does not contain a mapped threatened ecological community (TEC). The Depot Springs stygofauna community TEC is unlikely to be impacted by the proposed clearing (DBCA, 2023b).	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Murchison Bioregion (Government of Western Australia, 2019). Approximately 99% of the pre-European extent of the Beard vegetation association present within the application area remains uncleared at both the state and bioregional level (Government of Western Australia, 2019). 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	No

Assessment against the clearing principles	Variance level	Is further consideration required?
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 is not located within any DBCA legislated conservation areas (GIS Database). The nearest legislated conservation area is the Jilgu National Park, approximately 99 kilometres north of the application area (GIS Database). Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	Not likely to be at variance	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 there are two minor ephemeral watercourses recorded within the application area, the proposed clearing is likely to impact vegetation growing within association with a watercourse.	At variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The clearing on the upper slopes (Pit 1 and haul road expansion) is unlikely to result in appreciable land degradation (Curry et al., 1994; MBS Environmental, 2024). However, the soil of the WRD area is described as having a moderate to high erosion risk after clearing of native vegetation (MBS Environmental, 2024). Due to the slope of the area, there is a moderate to high risk of erosion during rainfall events, especially if the mantle is disturbed (Curry et al., 1994; DER, 2014). Therefore, proposed clearing may have an appreciable impact on land degradation.	May be at variance	No
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: Sedimentation may result in the deterioration in the quality of surface water (DER, 2014; MBS Environmental, 2024). The clearing of the area for the expansion of Pit 1 and the haul road is unlikely to result in increased sedimentation are these areas have exposed rock or stony soils (MBS Environmental, 2024). The clearing for the WRD expansion may result in increased sedimentation during heavy rainfall events, as the soils on the lower slopes are less stony (MBS Environmental, 2024). With high annual evaporation rates and low annual rainfall, regional groundwater is predicted to only experience minor periodic recharge during rare heavy rainfall events (BoM, 2006; 2025; Curry et al., 1994; English, 2013). As the deterioration in the quality of surface or underground water is only likely to occur in heavy rainfall events, which are uncommon for the region, the proposed clearing is not likely to be at variance to this principle (English, 2013).	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The Mount Gould formation is a natural watershed, dispersing rainfall from areas of high topographic relief to the surrounding plains, via gullies or sheetflow (MBS Environmental, 2024; 2025b). The clearing of native vegetation may increase the risk of flooding, by reducing water uptake, infiltration, moisture retention and increasing flow velocity (MBS Environmental, 2025b). However, as the Murchison region experiences high annual evaporation rates and low annual rainfall, major floods are few (BoM, 2006; 2025; Curry et al., 1994). Given the extent of clearing, the proposed clearing may result in minor localised flooding, which is not uncommon within the region, but is unlikely to result in an increase in flooding at a catchment level (Curry et al., 1994).	Not likely to be at variance	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. Vegetation type descriptions

Table adapted from Biologic (2023)

Vegetation code	Description	Extent		Features of interest and condition	Representative photograph
		Within tenement (M 52/236)	Within Mount Gould BIF PEC		
S1 AaAinAf	*Acacia aptaneura, Acacia incurvaneura, Acacia fuscaneura* tall sparse to open shrubland over *Ptilotus polystachyus, Solanum lasiophyllum, Ptilotus obovatus* isolated clumps of shrubs over *Aristida contorta, Eriachne aristidea, Eragrostis eriopoda* isolated clumps of tussock grasses	77.46 ha 12.64%	124.96 ha 7.42%	Lower slopes and foothills of Mount Gould, mostly southern aspect. Presents optimal habitat for *Halgania gustafsenii* var. Murchison (P1). Other significant flora present: *Eremophila warnesii* (P1) and *Tribulus adelacanthus* (P3). Possible representative of the Mount Gould PEC.	

S3 AinApt	*Acacia incurvaneura, Acacia pteraneura* tall sparse shrubland over *Ptilotus obovatus, Eremophila lachnocalyx* low isolated clumps of shrubs over *Aristida contorta, Eriachne aristidea*, *Eragrostis eriopoda* isolated clumps of tussock grasses	44.18 ha 7.21%	66.78 ha 3.97%	Lower slopes and foothills of Mount Gould, mostly eastern aspect. Presents optimal habitat for *Halgania gustafsenii* var. Murchison (P1). Other significant flora present: *Eremophila warnesii* (P1) and *Tribulus adelacanthus* (P3). Possible representative of the Mount Gould PEC.	
H1 PhbcErltTm	*Grevillea berryana, Hakea lorea* tall isolated clumps of shrubs over *Philotheca brucei, Eremophila latrobei* low sparse shrubland over *Triodia melvillei* low open hummock grassland (Western Australian Herbarium, 1998-).	18.20 ha 2.97%	18.20 ha 1.08%	Crest of southern hill. Significant flora present: *Eremophila warnesii* (P1). Representative of the Mount Gould PEC. Overall condition: Excellent.	
H2 PtoErwErlc	*Acacia aptaneura*, (+/- *Acacia rhodophloia*) tall open to sparse shrubland over *Ptilotus obovatus*, (+/- *Eremophila warnesii, Eremophila lachnocalyx*) low sparse shrubland over *Aristida contorta, Digitaria brownii, Enneapogon caerulescens* low sparse tussock grassland	45.51 ha 7.42%	48.63 ha 2.89%	Crests and slopes to upper slopes of Mount Gould, mostly northern aspect. Presents optimal habitat for *Eremophila warnesii* (P1). Other significant flora present: *Halgania gustafsenii* var. Murchison (P1) and *Tribulus adelacanthus* (P3). Representative of the Mount Gould PEC. Overall condition: Very good to excellent.	

H3 AaAciAr	*Acacia aptaneura,* (+/- *Acacia citrinoviridis, Acacia rhodophloia*) tall sparse shrubland over *Ptilotus obovatus, Eremophila latrobei, Corchorus crozophorifolius* low sparse shrubland over *Aristida contorta, Digitaria brownii, Paspalidium clementii* isolated clumps of tussock grasses	67.95 ha 11.09%	67.95 ha 4.04%	Crests and slopes to upper slopes of Mount Gould, mostly southern and western aspect. Significant flora present: *Eremophila warnesii* (P1), *Halgania gustafsenii* var. Murchison (P1) and *Tribulus adelacanthus* (P3). Representative of the Mount Gould PEC.	
P2 ArrAkApt	*Acacia ramulosa, Acacia kempeana* (+/- *Acacia pteraneura*) tall sparse to open shrubland over *Eremophila forrestii, Ptilotus polystachyus, Corchorus crozophorifolius* low sparse shrubland over *Aristida holathera, Eriachne aristidea, Aristida contorta* low sparse to open tussock grassland	142.64 ha 23.27%	238.01 ha 14.14%	Stony and sandy plains of the foothills of the Survey Area. Presents optimal habitat for *Tribulus adelacanthus* (P3). Other significant flora present: *Eremophila warnesii* (P1) and *Halgania gustafsenii* var. Murchison (P1). Overall condition: poor to Excellent.	

Appendix F. Vegetation type map

A map of vegetation types across the tenement (M 52/236) is provided in Figure 4 below.

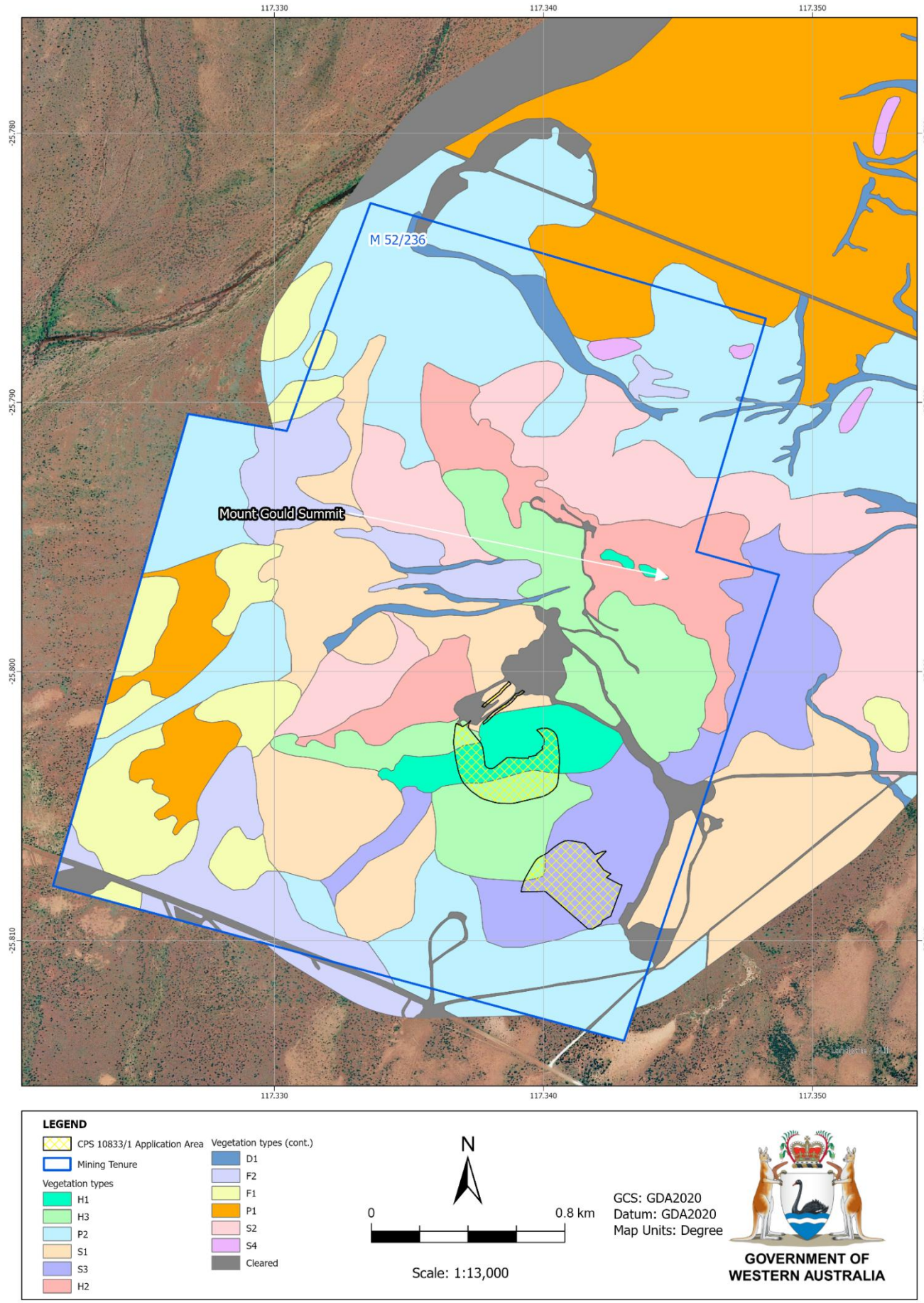

Figure 4. Map of vegetation types. The yellow crosshatched area indicates the application area. The Mount Gould Summit is labelled for positional reference. Vegetation type spatial data from Biologic (2023).

Appendix G. Fauna and habitat survey excerpts

Table adapted from Biologic (2022)

Habitat and significance	Distinguishing habitat characteristics	Extent of the habitat	Suitability for significant species	Representative photograph
Rocky hill (Low)	Rocky Hill habitat comprises hills and undulating stony plains of higher elevation, supporting spinifex or tussock grassland, *Ptilotis* spp and sparse mulga woodland on a mantle of gravel and larger rocks with occasional minor to moderate ironstone/ granite outcropping.	Rocky Hill habitat is common throughout the Study Area, particularly on Mount Gould. The occurrence of this habitat type throughout the region is relatively common and widespread, with isolated patches scattered across the Murchison region.	Supporting habitat for: • Long-tailed dunnart (foraging and dispersal); and • Peregrine falcon (foraging and dispersal).	
Sandy plain (Moderate)	Sandy Plain habitat comprises flat plains with vegetation dominated by scattered *Acacia* spp. and mulga trees and shrubs and patches of various small to medium shrub species on soft sandy clay loam substrates. Evidence of cattle and camel trampling and grazing.	Sandy Plain habitat occurs throughout a large portion of the Study Area, often occurring at the foothills of Rocky Hill habitat. Sandy Plain is a common and widespread habitat types within the Murchison bioregion. The vegetation and substrate which make up this habitat type are characteristic features of the region.	Critical habitat for: • Brush-tailed mulgara (breeding, foraging and dispersal). Supporting habitat for: • Peregrine falcon (foraging and dispersal); and • Grey falcon (foraging and dispersal).	
Stony plain (Low)	Stony Plain habitat comprises flat to low undulating areas and low hills with vegetation dominated by mulga trees over tussock grasslands on stony clay loam substrates.	Stony Plain habitat is primarily restricted to the northern section of the Study Area on flat plains within the Mount Gould vegetation complex PEC. Stony Plain habitat is widespread throughout the Murchison bioregion.	Supporting habitat for: • Brush-tailed mulgara (foraging and dispersal, where occurring near sandy plain habitat); • Peregrine falcon (foraging and dispersal); and • Grey falcon (foraging and dispersal).	

Rocky outcrop/ breakaway (Moderate)	Rocky Outcrop/ Breakaway habitat provided some of the most elevated and steepest terrain within the Study Area. Composed of piles of large ironstone and haematite boulders, this habitat type was scattered patchily throughout the Study Area. This habitat also provides a multitude of deep cracks and crevices in rocky outcropping for shelter for a range of vertebrate fauna species. In some areas of this habitat scattered *Acacia* spp. shrubs provided additional shelter or foraging opportunities.	Rocky Outcrop/ Breakaway habitat was scattered throughout the Study Area. Patches of Rocky Outcrop/ Breakaway habitat were separated by hill slopes, and plains whereby connectivity of habitat was highly interrupted. Mount Gould had several breakaways and cliff faces that provide suitable roosting and breeding habitat for peregrine falcon. Vertebrate fauna (excluding bird species) utilising this habitat would potentially be restricted to individual pockets of the habitat due to high predation risk during dispersal to another surrounding similar habitat. This habitat type is widespread, yet scattered throughout the Murchison bioregion.	Critical habitat for: • Long-tailed dunnart (breeding, foraging and dispersal); and • Peregrine falcon (breeding).	
Minor drainage line (Low)	Drainage lines were located in the footslopes of Mount Gould and adjacent to Gorge/ Gully, Rocky Hill, and Stony Plain habitats. Vegetation within this habitat comprised of scattered to dense mixed *Acacia* species (*Acacia aneura, Acacia grasbyi*), with the exception of the drainage line in the centre of the Study Area, which was associated with previous mining operations and consequently, highly disturbed. Soils were often soft and deep, and conducive to burrowing.	Minor Drainage Line habitat is patchily distributed throughout the Study Area, where water accumulates and flows from Rocky Outcrops and Rocky Hill habitats of Mount Gould toward the lower lying Stony and Sandy Plains habitats. This fauna habitat is relatively common throughout the Murchison bioregion, with the Murchison River briefly intersecting the northwestern edge of the Study Area and running less than 1 km from the western boundary. Across the region its structure and condition is variable as a result of rainfall events and disturbance (i.e., fire and cattle grazing).	Supporting habitat for: • Peregrine falcon (foraging and dispersal); and • Grey falcon (foraging and dispersal).	

Cleared/ disturbed (N/A)	Access tracks and cleared areas associated with mining/ exploration activities (i.e. mine pit, lay down areas).	Access tracks throughout the Study Area were associated with mining and exploration as well as historical mine pit and laydown areas. These were centred mostly around and towards the summit of Mount Gould.	N/A	

Appendix H. Sources of information

H.1. GIS datasets

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Bush Forever (Regional Scheme) (DPLH-022)
- Cadastre (LGATE-218)
- 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)
- Esri World Imagery
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

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

H.2. References

Atlas of Living Australia (ALA) (2015) Area of Occupancy and Extent of Occurrence. Atlas of Living Australia, 11 August 2015. Area of Occupancy and Extent of Occurrence – Atlas of Living Australia (Accessed 8 August 2025).

Atlas of Living Australia (ALA) (n.d.) *Idiosoma clypeatum* Rix & Harvey, 2018. Atlas of Living Australia. Idiosoma clypeatum : Northern Shield-Backed Trapdoor Spider | Atlas of Living Australia (Accessed 8 May 2025).

Australian Museum (2019) Peregrine Falcon. Australian Museum, Sydney, 20 March 2019. Peregrine Falcon - The Australian Museum (Accessed 17 April 2025).

Banks-Leite, C., Ewers, R. M., Folkard-Tapp, H. and Fraser, A. (2020) Countering the effects of habitat loss, fragmentation and degradation through habitat restoration. On Earth, 3(6), 672-676. https://doi.org/10.1016/j.oneear.2020.11.016

Biologic Environmental Survey Pty Ltd (Biologic) (2012a) Mount Gould Short-range Endemic Invertebrate Survey Report. Prepared for Atlas Iron Ltd, by Biologic Environmental Survey Pty Ltd, July 2012.

Biologic Environmental Survey Pty Ltd (Biologic) (2012b) Mount Gould Vertebrate Fauna Study. Prepared for Atlas Iron Ltd, by Biologic Environmental Survey Pty Ltd, January 2012.

Biologic Environmental Survey Pty Ltd (Biologic) (2022) Mount Gould Project Basic Terrestrial Vertebrate Fauna Survey. Prepared for MBS Environmental, on behalf of Newcam Minerals, by Biologic Environmental Survey Pty Ltd, December 2022.

Biologic Environmental Survey Pty Ltd (Biologic) (2023) Mount Gould: Flora and Vegetation Assessment. Prepared for MBS Environmental, on behalf of Newcam Minerals, by Biologic Environmental Survey Pty Ltd, April 2023.

Bureau of Meteorology (BoM) (2006) Map of average pan evaporation – Annual. Bureau of Meteorology. http://www.bom.gov.au/climate/maps/averages/evaporation/ (Accessed 9 May 2025).

Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Mount Gould. Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 14 April 2025).

Burgman, M. A., Keith, D., Hopper, S. D., Widyatmoko, D. and Drill, C. (2007) Threat syndromes and conservation of the Australian flora. Biological Conservation, 134(1), 73-82. https://doi.org/10.1016/j.biocon.2006.08.005

Burnside, D., Holm, A., Payne, A. and Wilson, G. (1995) Reading the rangeland: A guide to the arid shrublands of Western Australia. Department of Agriculture, South Perth, 1995. Reading the rangeland: a guide to the arid shrublands of Western Australia

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

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.

Curry, P. J., Payne, A. L., Leighton, K. A., Hennig, P. and Blood, D. A. (1994) An inventory and condition survey of the Murchison River catchment, Western Australia. Technical Bulletin 84. Department of Agriculture, Perth. An inventory and condition survey of the Murchison River catchment, Western Australia

Department of Biodiversity, Conservation and Attractions (DBCA) (2023a) Comments received in relation to Mining Proposal 500052. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, 17 October 2023.

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

Department of Biodiversity, Conservation and Attractions (DBCA) (2023c) Threatened Ecological Communities List May 2023. Department of Biodiversity, Conservation and Attractions. https://www.dbca.wa.gov.au/wildlife-and-ecosystems/threatened-ecological-communities/list-threatened-ecological-communities (Accessed 16 April 2025).

Department of Biodiversity, Conservation and Attractions (DBCA) (2025a) Advice received in relation to Clearing Permit Application CPS 10833/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, July 2025.

Department of Biodiversity, Conservation and Attractions (DBCA) (2025b) Threatened and Priority Flora List July 2025. Department of Biodiversity, Conservation and Attractions. Threatened species and communities | Department of Biodiversity, Conservation and Attractions (Accessed 9 July 2025).

Department of Environment and Conservation (DEC) (n.d.) Mulgara (*Dasycercus* sp.) factsheet. Department of Environment and Conservation, Western Australia.

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

Department of Mines, Industry Regulation and Safety (DMIRS) (2022) Clearing Permit CPS 9417/1, granted 19 May 2022. Available from Index of /permit/9417.

Department of Natural Resources, Environment and the Arts (DNREA) (2006) Threatened Species of the Northern Territory: Brush-tailed mulgara factsheet. Northern Territory Government, December 2006.

Department of Planning, Lands and Heritage (DPLH) (2025) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS (Accessed 16 April 2025).

Department of Primary Industries and Regional Development (DPIRD) (2025) NRInfo Digital Mapping. Department of Primary Industries and Regional Development, Government of Western Australia. https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f (Accessed 5 February 2025).

English, P. (2013) Groundwater investigations in palaeovalleys in the Murchison Region. AusGeo News, 109. Geoscience Australia, March 2013. AusGeo News 109—Groundwater Investigiations in palaeovalleys in the Murchison region

Environmental Protection Authority (EPA) (2014) WA Environmental Offsets Guidelines. https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/WA%20Environmental%20Offsets%20Guideline%20August%202014.pdf

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

Gaston, K. J. and Fuller, R. A. (2009) The sizes of species' geographic ranges. Journal of Applied Ecology, 46(1), 1-9. https://doi.org/10.1111/j.1365-2664.2008.01596.x

Gibson, N., Coates, D., van Leeuwen, S. and Yates, C. (2015) Hot, dry and ancient: banded iron formations of Western Australia. Geossistemas ferruginosos no Brasil.indd

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

Government of Western Australia (GoWA) (2008) Strategic review of the banded iron formation ranges of the Midwest and Goldfields. Department of Environment and Conservation and Department of Industry and Resources, Western Australia. 024311.pdf

Harris, L. F. and Johnson, S. D. (2007) The consequences of habitat fragmentation for plant–pollinator mutualisms. International Journal of Tropical Insect Science, 24(1), 29-43. https://doi.org/10.1079/IJT20049

International Union for Conservation of Nature (IUCN) (2024). Guidelines for Using the IUCN Red List Categories and Criteria. Version 16. Prepared by the Standards and Petitions Committee, March 2024. https://www.iucnredlist.org/documents/RedListGuidelines.pdf

International Union for Conservation of Nature (IUCN) (2025) Long-tailed dunnart. The IUCN Red List of Threatened Species. International Union for Conservation of Nature. Sminthopsis longicaudata (Long-tailed Dunnart) (Accessed 7 May 2025).

Invasive Species Council (2025) Habitat destruction, degradation and fragmentation. Invasive Species Council, Threats to Nature Project. Habitat destruction, degradation and fragmentation - Invasive Species Council (Accessed 11 July 2025).

Martinick Bosch Sell Pty Ltd (MBS Environmental) (2024) Native vegetation clearing permit, Mount Gould Iron Project, M52/236. Prepared for Newcam Minerals Pty Ltd, by Martinick Bosch Sell Pty Ltd, November 2024.

Martinick Bosch Sell Pty Ltd (MBS Environmental) (2025a) Letter in response to notice of intent to refuse. Prepared by Martinick Bosch Sell Pty Ltd, on behalf of Newcam Minerals Pty Ltd, 30 July 2025.

Martinick Bosch Sell Pty Ltd (MBS Environmental) (2025b) Mt Gould Iron Ore Project Stage 3 Mining Proposal, M 52/236, Version 3, Revision 3. Prepared for Newcam Minerals Pty Ltd, by Martinick Bosch Sell Pty Ltd, March 2025.

Meissner, R., Owen, G. and Bayliss, B. (2009) Flora and vegetation of the banded iron formation of the Yilgarn Craton: Robinson Ranges and Mount Gould. Conservation Science Western Australia, 7(2), 363-376. VOLUME 5 PT 3

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 16 April 2025).

National Wildlife Federation (NWF) (n.d.) Peregrine Falcon. National Wildlife Federation, Virginia. Peregrine Falcon | National Wildlife Federation (Accessed 17 April 2025).

Newcam Minerals Pty Ltd (Newcam Minerals) (2024) Clearing permit application form, CPS 10833/1, received 15 November 2024.

Pavey, C. R., Nano, C. E. M., Cooper, S. J. B., Cole, J. R., & 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/ZO11052

Rix, M. G., Huey, J. A., Cooper, S. J. B., Austin, A. D. and Harvey, M. S. (2018) Conservation systematics of the shield-backed trapdoor spiders of the *nigrum*-group (Mygalomorphae, Idiopidae, *Idiosoma*): integrative taxonomy reveals a diverse and threatened fauna from south-western Australia. Zookeys, 756, 1-121. https://doi.org/10.3897/zookeys.756.24397

Rodríguez, J. P., Keith, D. A., Rodríguez-Clark, K. M., Murray, N. J., Nicholson, E., Regan, T. J., Miller, R. M., Barrow, E. G., Bland, L. M., Boe, K., Brooks, T. M., Oliveira-Miranda, M. A., Spalding, M. and Wit, P. (2015) A practical guide to the application of the IUCN Red List of Ecosystems criteria. Philosophical Transactions of the Royal Society of London, Series B, 370(1662). https://doi.org/10.1098/rstb.2014.0003

Rybicki, J., Abrego, N. and Ovaskainen, O. (2020) Habitat fragmentation and species diversity in competitive communities. Ecology Letters, 23(3), 506-517. https://doi.org/10.1111/ele.13450

Rye, B. L. (1999) A taxonomic revision of the many-flowered species of *Trachymene* (Apiaceae) in Western Australia. Nuytsia: Journal of the Western Australian Herbarium, 13(1), 193-232. 080057-13.011.pdf

Trudgen, M.E. (1991) Vegetation condition scale in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

van Dyck, S. and Strahan, R. (eds.) (2008) Long-tailed Dunnart (*Sminthopsis longicaudata*). The Mammals of Australia, 148-150. Reed New Holland, Sydney, 2008.

Western Australian Herbarium (1998–) Florabase—the Western Australian flora. Department of Biodiversity, Conservation and Attractions. https://florabase.dbca.wa.gov.au/ (Accessed 16 April 2025).

Western Australian Museum (WAM) (n.d.) Long-tailed dunnart. Western Australian Museum. Sminthopsis longicaudata | WA Museum Collections (Accessed 7 May 2025).

Woodman Environmental Consulting (Woodman Environmental) (2009) Atlas Iron Limited, Mount Gould Project Flora and Vegetation Assessment. Prepared for Atlas Iron Limited, by Woodman Environmental Consulting Pty Ltd, May 2009.

Woolley, P. A. (2006) Studies on the crest-tailed mulgara *Dasycercus cristicauda* and the brush-tailed mulgara *Dasycercus blythi* (Marsupialia: Dasyuridae). Australian Mammalogy, 28, 117-120. https://doi.org/10.1071/AM06018

Xiao, Y., Li, X., Cao, Y. and Dong, M. (2016) The diverse effects of habitat fragmentation on plant–pollinator interactions. Plant Ecology, 217, 857-868. https://doi.org/10.1007/s11258-016-0608-7

Young, C. (1981) Rare marsupial captured in Gibson Desert. The State Wildlife News Service (SWANS) Wildlife Journal, 11(3), 3-6. 080073-11.03.pdf

5. 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.