

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	9046/2
Permit type:	Purpose Permit
Applicant name:	Golden Grove Operations Pty Ltd
Application received:	4 June 2024
Application area:	131.1 hectares
Purpose of clearing:	Mineral Production and Associated Activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 59/91, 59/92, 59/93 and 59/195
Location (LGA area):	Shire of Yalgoo
Colloquial name:	Gossan Valley Project

1.2. Description of clearing activities

Golden Grove Operations Pty Ltd (Golden Grove) proposes to clear up to 131.1 hectares of native vegetation within a boundary of approximately 403.4 hectares, for the purpose of mineral production and associated activities (Golden Grove, 2024). The project is located approximately 55 kilometres south-east of Yalgoo, within the Shire of Yalgoo (GIS Database).

The application is to allow for the expansion of the Golden Grove mine to include an additional underground mine known as the Gossan Valley Project (AECOM, 2020).

Clearing permit CPS 9046/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 26 November 2020 and was valid from 19 December 2020 to 31 January 2030. The permit authorised the clearing of up to 109.82 hectares of native vegetation within a boundary of approximately 417.95 hectares, for the purpose of mineral production and associated activities.

On 4 June 2024, the Permit Holder applied to amend CPS 9046/1 to increase the amount permitted to clear by 21.28 hectares, decrease the permit boundary by 14.6 hectares and to update the company name (Golden Grove, 2024). According to the latest annual clearing report, no clearing of native vegetation has been carried out under this permit.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	24 June 2025
Decision area:	131.1 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix D), supporting information provided by the applicant, including the results of flora, vegetation and fauna surveys, the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- potential land degradation;
- impacts to conservation significant flora; and
- impacts to conservation significant fauna.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback;
- undertake clearing within three months of the authorised clearing being undertaken;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- avoid clearing riparian vegetation where practicable and maintain existing surface flows;
- no clearing of *Stylidium scintillans* individuals; and
- where clearing occurs between 1 September and 31 January, within two weeks prior to the clearing, engage an environmental specialist to identify active Malleefowl mounds and ensure no clearing occurs within 200 metres of the mound.

The assessment has not changed since the assessment for CPS 9046/1 except in the case of principle (a), (b) and (c) which has changed to at variance. The Delegated Officer determined that the proposed amendment being sought, to increase the amount permitted to clear by 21.28 hectares, is not likely to lead to an unacceptable risk to environmental values.

1.5. Site map

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

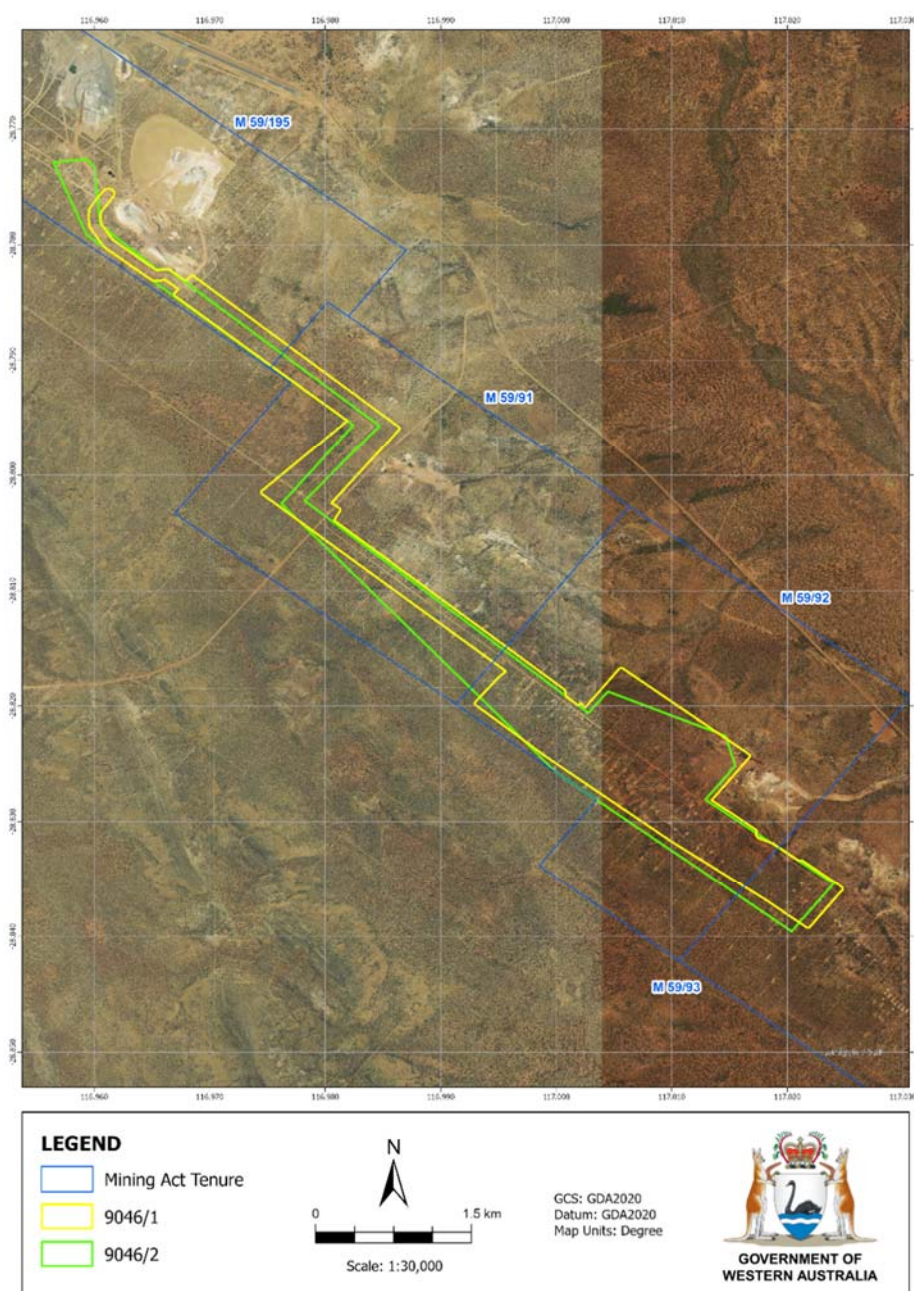


Figure 1. Map of the application area. The yellow area indicates the area approved under CPS 9046/1 and the green area indicates the application area for CPS 9046/2.

2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)

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)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016b)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

Evidence was submitted by the applicant, demonstrating avoidance and mitigation measures such as:

- clearly demarcate the area of vegetation required to be cleared;
- check area for Malleefowl nests prior to clearing activities;
- move through areas to be cleared with a loud sound immediately prior to civil equipment entry;
- ensure a suitably qualified wildlife spotter/handler is on call during clearing works;
- clearing in accordance with the Golden Grove Land Clearing and Rehabilitation Procedure, including inspection to identify Priority plants;
- topsoil stripping to be avoided in windy conditions;
- topsoil stockpiles will not exceed two metres in vertical height and will not be compacted during stockpiling activities;
- dust suppression during clearing and operational activities;
- disturbed areas to be rehabilitated progressively as available;
- maintain adherence to the Malleefowl Management Plan (29 Metals, 2023; Woodman Environmental Consulting, 2013).

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

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed since the assessment for CPS 9046/1 except in the case of principle (a), (b) and (c) which has changed to at variance.

3.2.1. Biological values (flora & fauna) - Clearing Principles (a), (b) & (c)

Flora

Maia Environmental Consultancy undertook a desktop assessment; a *Stylidium scintillans* census survey in August 2019 (previously recorded individuals were re-assessed and boundaries for the current populations and sub-populations were located); a first phase of the detailed flora and vegetation survey in September 2019 (spring); and a second phase of the detailed flora survey in April 2020 (autumn) which included a targeted survey for *Stylidium scintillans* (Maia, 2020). The study area covered approximately 958 hectares (excluding the *S. scintillans* census areas outside the study area boundary), covering 329 hectares of the 417 hectare application area (Maia, 2020). Two hundred and forty-four taxa from 120 genera and 51 families were recorded in the study area (Maia, 2020). The remaining application area and surrounds have been subject to detailed flora and vegetation surveys since mid-1990s by Matisse (1996; 2004) and Woodman Environmental Consulting (2013) (Maia, 2020).

Five conservation significant flora species and one potential conservation significant flora species have been recorded in the study area – *Stylidium scintillans* (Threatened), *Calotis* sp. Perrinvale Station (R.J. Cranfield 7096), *Drummondia fulva*, *Grevillea globosa*, *Micromyrtus trudgenii* and *Polianthion collinum* (all Priority 3) (Maia, 2020; Woodman Environmental Consulting, 2013; Yilgarn, 2011). One potentially new species was located in the study area – *Acacia* sp. nov.

***Stylidium scintillans* – Threatened**

A targeted survey for *Stylidium scintillans* was carried out in the study area and surrounds in August/September 2011, which yielded 11 new populations (Yilgarn Consulting, 2011). Areas where individuals were recorded during the 2011 survey were re-visited during the 2019 targeted flora surveys (Maia, 2020). In 2019, fewer *Stylidium scintillans* were located than in 2011 (1,384 CPS 9046/2

plants compared with 157,147 plants) (Maia, 2020). The difference can be explained by the rainfall in the preceding three months (98.7 millimetres less in 2019) and the slightly later survey timing in 2019 (started 15 days later in 2019) (Maia, 2020). All *Stylidium scintillans* individuals were located within vegetation type ASL(8), and it was determined that four other vegetation types (ALS(3), ASL(5), ASL(7) and ASL(9)) were identified as potentially suitable habitat for this species (Maia, 2020). The *S. scintillans* regional habitat assessment indicated that 42.57 per cent of the regional area was predicted to be suitable habitat, and it is likely that this species will occur in more areas than it has been found to date (Maia, 2020). Twelve of the 1,384 plants were recorded within the application area, however no individuals of *Stylidium scintillans* are proposed to be cleared and potential impacts will be managed by the continued implementation of the flora condition not permitting the clearing within 50 metres of this species.

Other conservation significant flora

Calotis sp. Perrinvale Station (R.J. Cranfield 7096) (Priority 3) and *Polianthion collinum* (Priority 3) were previously recorded within the application area (Woodman Environmental Consulting, 2013), however were not identified during the 2019 flora survey (Maia, 2020). Suitable habitat is available in the surrounding areas, and the proposed clearing is not expected to impact these species.

Drummondita fulva (Priority 3), *Grevillea globosa* (Priority 3) and *Micromyrtus trudgenii* (Priority 3) were recorded within the study area and the application area during the 2019 survey (Maia, 2020). As suitable habitat for these species is available in the surrounding areas and bioregion, and several additional records of these species were identified outside of the application area, the proposed clearing is not considered to significantly impact these species at the local or regional level.

Acacia sp. nov. is a medium to tall shrub to 2.5 m tall (Maia, 2020). *Acacia* sp. nov. is most similar to *Acacia ramulosa* (a common species in the study area) but differs in that it has smaller pods and is difficult to recognise without fruit. (Maia, 2020). *Acacia* sp. nov. was recorded at nine locations outside the application area (Maia, 2020).

Santalum spicatum (Sandalwood)

Thirty-eight *Santalum spicatum* (at 32 locations) were recorded in the study area, nine of these individuals were recorded within the application area. Sandalwood (*Santalum spicatum*) is a controlled species under the BC Act (if it has a diameter of greater than 25 millimetres at the smallest end when stripped of bark; or roots of sandalwood) and it cannot be taken from private land or from Crown land to be processed without a licence (DBCA, 2023). The proponent does not propose to clear any Sandalwood individuals and a 10 metre buffer will be implemented around each individual (29 Metals Ltd, 2024).

Vegetation Associations

Of the 13 vegetation types identified within the application area, five are considered locally significant; ASL(3), ASL(5), ASL(7), ASL(8) and ASL(11). The remaining vegetation types are considered of mostly moderately significant (Maia, 2020). Four of the 13 vegetation types are considered regionally significant; ASL(5), ASL(6), ASL(7) and ASL(8) (Maia, 2020). Of the five locally significant vegetation associations present within the application area, three are expected to be disturbed by the proposed clearing:

Vegetation Unit Code	Sum of hectares recorded within the Study Area	Sum of hectares recorded within the Permit Area	Sum of hectares of proposed disturbance within Permit Area
ALS(3)	102.18	19.17	5.64
ALS(5)	67.64	37.71	17.66
ALS(7)	42.63	0.17	0.00
ALS(8)	30.11	7.62	2.59
ALS(11)	7.82	5.87	0.00

The above proposed disturbances are not likely to lead to a significant impact to these vegetation associations as the vegetation associations are present within the surrounding environment. The proposed clearing will remove approximately 3.2 percent of the vegetation mapped during baseline surveys and is not expected to result in a significant reduction in the representation of these communities in the region (AECOM, 2020).

Priority Ecological Community

No Threatened Ecological Communities or Priority Ecological Communities (PECs) occur within the application area (Maia, 2020). The broader area surveyed by Maia (2020) overlaps two small sections of the buffer for the 'Minjar and Chulaar Hills vegetation complexes (banded ironstone formation)' Priority 1 PEC. None of the vegetation surveyed within the application area is representative of the PEC (AECOM, 2020).

Fauna

Phoenix (2020) undertook a single-phase terrestrial fauna survey including targeted Malleefowl (*Leipoa ocellata*), Western Spiny-tailed skink (*Egernia stokesii* subsp. *badia*) and Northern Shield-backed trapdoor spiders (*Idiosoma clypeatum*) searches of a 806.3 hectare study area in October/November of 2019. The study covered approximately 330 hectares of the 417.95 hectare application area (Phoenix, 2020). Five additional terrestrial fauna surveys have been conducted within the study area since 1997 (Phoenix, 2020). Three broad fauna habitats were identified within the fauna study area that intersects the application area (Phoenix, 2020). The majority of the application area (327 hectares) has been identified as shrubland and undulating plain habitat (Phoenix, 2020). The habitats within the application area are not considered to be locally or regionally important (Phoenix, 2020).

Phoenix recorded total of 67 terrestrial vertebrate species representing 41 families and 51 genera during the 2019 fauna survey (Phoenix, 2020). One conservation significant fauna – Malleefowl – was recorded within the application area (Phoenix, 2020). Evidence was recorded from scats (2), tracks (12), foraging evidence (6) and from 11 mounds within the study area (Phoenix, 2020). Of the 11 mounds, two (inactive) were located within the application area and foraging evidence was identified in one

location in the application area (Phoenix, 2020), such evidence indicates Malleefowl are utilising habitat within the Gossan Valley area for foraging. The proposed clearing of native vegetation is not considered to significantly impact this species as there is suitable habitat in similar or better condition is available within the surrounding environment and bioregion (29 Metals, 2023; Phoenix, 2020; GIS Database). Further impacts may be managed through the continuation of the Malleefowl fauna condition on the permit, requiring pre-clearance surveys and no clearing within 200 metres of active Malleefowl mounds.

Based on the habitat present in the application area, there is potential for Western Spiny-tailed skink (*Egernia stokesii subsp. badia*) and the common slender blue-tongue (*Cyclodomorphus branchialis*) to occur (Phoenix, 2020; GIS Database). However, extensive searches, including targeted surveys, of the area did not detect these species (Phoenix, 2020). Given the proximity of historic records (1.58 kilometres and 9.44 kilometres, respectively) they cannot be completely ruled out, however they are considered unlikely to occur (Phoenix, 2020; GIS Database).

Idiosoma clypeatum (P3) (previously *I. nigrum*) has been recorded extensively on BIFs immediately west and southwest to the application area, in Gossan Valley (Phoenix, 2020; GIS Database). Extensive searches in the study area failed to detect the species and it is considered absent (Phoenix, 2020).

No short-range endemic (SRE) invertebrate habitats were identified within the survey area (Phoenix, 2020). While breakaways in the Murchison region and other semi-arid areas are often associated with SREs, in this case they were poorly vegetated and offered no mesic conditions on which SREs might be found to persist (Phoenix, 2020).

Conclusion

Based on the above assessment, the proposed clearing will result in the potential impacts to *Stylidium scintillans* and Malleefowl (*Leipoa ocellata*). For the reasons set out above, it is considered that the impacts of the proposed clearing can continue to be managed to be environmentally acceptable.

Conditions

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

- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- flora management - no clearing of *Stylidium scintillans* individuals; and
- fauna management - prior to undertaking any clearing, engage an environmental specialist to conduct an inspection of the area to be cleared to identify active (in use) Malleefowl mounds; and where an active (in use) Malleefowl mound is identified, ensure that no clearing occurs within 200 metres of the mound, during the breeding season (September through to January), unless first approved by the CEO.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 9 August 2024 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim 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 Sites of Significance within the application area (DPLH, 2025). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is noted that the proposed clearing may impact on Malleefowl (*Leipoa ocellata*) and *Stylidium scintillans* which are a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Federal) Department of Climate Change, Environment and Water for environmental impact assessment under the EPBC Act. The proponent is advised to contact the Department of Climate Change, Energy, the Environment and Water and the Environment for further information regarding notification and referral responsibilities under the EPBC Act.

Other relevant authorisations required for the proposed land use include:

- 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.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is located approximately 55 kilometres south-east of Yalgoo, within the Shire of Yalgoo (GIS Database). The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is mostly surrounded by mining infrastructure (GIS Database).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).
Conservation areas	There are no conservation areas located within the application area (GIS Database). The closest conservation area is a DBCA legislated land (Conservation Park) located approximately 10 kilometres east of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 202: Shrublands; mulga & <i>Acacia quadrimarginea</i> scrub; and 420: Scrub, open scrub or sparse scrub. Wattle, teatree and other species <i>Acacia</i> spp. <i>Melaleuca</i> spp. (GIS Database). A flora and vegetation survey was conducted over the application area by Woodman Environmental Consulting during October, 2012. The following vegetation association was recorded within the application area (Woodman Environmental Consulting, 2013): VT11: Tall closed to sparse shrubland of mixed <i>Acacia</i> species dominated by <i>Acacia effusifolia</i>, <i>Acacia ramulosa</i> var. <i>ramulosa</i> and <i>Acacia sibina</i> over low isolated clumps of tussock grasses of <i>Monachather paradoxus</i> on yellow to and red-brown loams on plains and slopes. A detailed vegetation and flora survey for Gossan Valley, was conducted by Maia Environmental Consultancy (2020). The detailed vegetation and flora assessment covered most of the application area, and recorded the following vegetation types within the application area: ASL(1): <i>Acacia</i> Tall Shrubland to Tall Open Shrubland. Tall Shrubland to Tall Open Shrubland of mixed <i>Acacia</i> species, mainly <i>Acacia ramulosa</i> var. <i>ramulosa</i>, <i>A. burkittii</i> and <i>A. tetragonophylla</i> with a mixed Sparse Shrubland mainly <i>Scaevola spinescens</i>, <i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i> and <i>E. pantonii</i> with a Low Open Shrubland of mixed species mostly <i>Eremophila granitica</i>, <i>E. eriocalyx</i> and <i>Ptilotus obovatus</i> var. <i>obovatus</i> (23.1 hectares); ASL(2): <i>Acacia</i> Tall Shrubland to Tall Open Shrubland. Tall Shrubland to Tall Open Shrubland of mixed <i>Acacia</i> species, mainly <i>Acacia ramulosa</i> var. <i>ramulosa</i>, <i>A. effusifolia</i> and <i>A. tetragonophylla</i> with a Low Open Shrubland of mixed species mainly <i>Rhagodia drummondii</i>, <i>Ptilotus obovatus</i> var. <i>obovatus</i> and <i>Senna artemisioides</i> subsp. <i>filifolia</i> and sometimes with Low Isolated Trees of <i>Callitris columellaris</i> and <i>I</i> or <i>Eucalyptus kochii</i> subsp. <i>plenissima</i> (17.6 hectares); ASL(3): <i>Acacia</i> Tall Shrubland to Tall Open Shrubland. Tall Shrubland to Tall Open Shrubland of mixed <i>Acacia</i> species mainly <i>Acacia ramulosa</i> var. <i>ramulosa</i>, <i>A. burkittii</i> and <i>A. tetragonophylla</i> with an Open Shrubland of mixed species mainly <i>Eremophila clarkei</i>, <i>Scaevola spinescens</i> and <i>Acacia exocarpoides</i> and a Low Sparse mixed Shrubland mainly of <i>Solanum lasiophyllum</i>, <i>Ptilotus obovatus</i> var. <i>obovatus</i> and <i>Sida</i> sp. dark green fruits (S. van Leeuwen 2260) (27.7 hectares); ASL(4): <i>Acacia</i> Tall Shrubland to Open Shrubland. Tall Shrubland to Tall Open Shrubland <i>Acacia ramulosa</i> var. <i>ramulosa</i> and <i>A. sibina</i> with an Open Sparse mixed Shrubland mainly of <i>Acacia exocarpoides</i>, <i>Eremophila georgei</i>, <i>E. clarkei</i> and a Low Sparse mixed Shrubland mainly of <i>Olearia humilis</i>, <i>Ptilotus obovatus</i> var. <i>obovatus</i> and <i>Cryptandra imbricata</i> (79.3 hectares); ASL(5): <i>Acacia</i> Tall Open Shrubland. Tall Open Shrubland of mixed <i>Acacia</i> species, mainly <i>Acacia ramulosa</i> var. <i>ramulosa</i>, <i>A. assimilis</i> and <i>A. aulacophylla</i> with a Low Open Shrubland of mixed species mainly <i>Eremophila latrobei</i> subsp. <i>latrobei</i>, <i>Philotheca brucei</i> subsp. <i>brucei</i> and <i>P. sericea</i> with a mixed Sparse Shrubland mainly of <i>Aluta aspera</i> subsp. <i>hesperia</i>, <i>Thryptomene decussata</i> and <i>Eremophila forrestii</i> subsp. <i>forrestii</i> (41.1 hectares); ASL(6): <i>Acacia</i> Tall Open Shrubland. Tall Open Shrubland of mixed <i>Acacia</i> species mainly <i>Acacia incurvaneura</i>, <i>A. aneura</i> and <i>A. ramulosa</i> var. <i>ramulosa</i> with a Sparse Shrubland of <i>Eremophila forrestii</i> subsp. <i>forrestii</i> and <i>E. latrobei</i> subsp. <i>latrobei</i> and a Low Sparse Shrubland of <i>Ptilotus obovatus</i> var. <i>obovatus</i> (20.5 hectares); ASL(7): <i>Acacia</i> Tall Open Shrubland. Tall Open Shrubland of mixed <i>Acacia</i> species mainly <i>Acacia umbraculiformis</i>, <i>A. grasbyi</i> and <i>A. ramulosa</i> var. <i>ramulosa</i>, with a Low Open mixed Shrubland mainly of <i>Thryptomene costata</i>, <i>Eremophila latrobei</i> subsp. <i>latrobei</i> and <i>Philotheca brucei</i> subsp. <i>brucei</i> with Isolated clumps of <i>Borya sphaerocephala</i> (0.9 hectares);

Characteristic	Details
	• ASL(8): Acacia Tall Open Shrubland to Tall Sparse Shrubland. Tall Open Shrubland to Tall Sparse Shrubland of <i>Acacia aulacophylla</i> with an Open mixed Shrubland mainly of <i>Philotheca brucei</i> subsp. <i>brucei</i>, <i>Thryptomene costata</i> and <i>Micromyrtus trudgenii</i> (P3) and a Low Open mixed Shrubland mainly of <i>Mirbelia</i> sp. <i>Bursarioides</i> (T.R. Lally 760), <i>Eremophila glutinosa</i> and <i>Calytrix uncinata</i> (7.8 hectares); • ASL(9): Acacia Tall Shrubland to Tall Open Shrubland. Tall Shrubland to Tall Open Shrubland of <i>Acacia effusifolia</i> and <i>A. sibina</i> with a Sparse mixed Shrubland mainly of <i>Eremophila forrestii</i> subsp. <i>forrestii</i>, <i>Philotheca tomentella</i> and <i>P. deserti</i> subsp. <i>deserti</i> (20.4 hectares); • ASL(10): Acacia Tall Shrubland. Tall Shrubland of <i>Acacia effusifolia</i> and <i>A. sibina</i> with a Sparse mixed Shrubland mainly of <i>Eremophila forrestii</i> subsp. <i>forrestii</i>, <i>Grevillea globosa</i> (P3) and <i>P. deserti</i> subsp. <i>deserti</i> and a Low mixed Open Shrubland mainly of <i>Aluta aspera</i> subsp. <i>hesperia</i>, <i>Hemigenia</i> sp. Yalgoo (A.M. Ashby 2624) and <i>H. Bentharii</i> (26.7 hectares); • ASL(11): Acacia Tall Open Shrubland. Tall Open Shrubland of <i>Acacia effusifolia</i> with a Sparse mixed Shrubland mainly of <i>Senna artemisioides</i> subsp. <i>filifolia</i>, <i>Olearia pimeleoides</i> and <i>Mirbelia</i> sp. <i>Bursarioides</i> (T.R. Lally 760) and Isolated Low Trees of <i>Bursaria occidentalis</i> +/- <i>Callitris columellaris</i> (5.9 hectares); • MCSL: Mixed Chenopod Shrubland. Low mixed Chenopod Shrubland mainly of <i>Atriplex codonocarpa</i>, <i>Maireana tomentosa</i> and <i>Rhagodia drummondii</i> with Tall mixed Isolated Shrubs mainly of <i>Hakea preissii</i>, <i>Persoonia manotricha</i> or <i>Acacia masliniana</i> and occasionally a Low Open Samphire Shrubland of <i>Tecticornia laevigata</i> (15.3 hectares); • MSL: Mixed Low Shrubland to Low Open Shrubland. Low Shrubland to Low Open Shrubland of <i>Aluta aspera</i> subsp. <i>hesperia</i> and +/- <i>Thryptomene costata</i> with isolated Tall Shrubs <i>Acacia assimilis</i> subsp. <i>assimilis</i> (11.0 hectares); and • Disturbed: (32.4 hectares).
Vegetation condition	The vegetation survey (Woodman Environmental Consulting, 2013) indicate the vegetation within the proposed clearing area is in 'Completely Degraded to 'Excellent' (Trudgen, 1991) condition, described as • 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 activities since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds. • 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. The full Trudgen (1991) condition rating scale is provided in Appendix C.
Climate and landform	The region experiences a dry warm Mediterranean climate and a mean annual rainfall of 259.6 millilitres (BoM, 2025).
Soil description	The soils of the application area are broadly mapped as the following soil types: • Kalli system: Elevated gently undulating red sandplains edged by stripped surfaces on laterite and granite, supporting acacia tall shrublands with wanderrie grass understoreys; • Tealtoo system: Level to gently undulating loamy plains with fine ironstone gravel mantles supporting dense acacia shrublands; and • Watson system. Hills, rises and gravelly plains on sedimentary rocks supporting bowgada shrublands with non-halophytic undershrubs (DPIRD, 2025).
Land degradation risk	The proposed area is located within the Kalli, Tealtoo and Watson land systems (GIS Database). • The Kalli land system is not usually susceptible to accelerate erosion, although vehicular tracks can cause local gullyng on steeper gradients; dense vegetation protects the soil from wind erosion (Curry et al., 1994); • The Teatloo system is not generally susceptible to erosion (Curry et al., 1994); and • The Watson land system may have stone and gravel mantles which provide effective protection against erosion, and disturbance may initiate erosion (Curry et al., 1994).
Waterbodies	The desktop assessment and aerial imagery indicate that there are no water courses, Ramsar wetlands or wetlands of national importance (ANCA wetlands) within the application area (GIS Database). Several creeklines intersect the application area (GIS Database).
Hydrogeography	The application area is mapped within the Gascoyne Groundwater Area (GIS Database).

Characteristic	Details
Flora	Five Priority flora species and one Threatened flora species have been recorded within the application area (Maia, 2020; Woodman Environmental Consulting, 2013; Yilgarn Consulting, 2011; GIS Database).
Ecological communities	The application area is not mapped within a Threatened or Priority Ecological Community (TEC/PEC) (Maia, 2020; GIS Database).
Fauna	Based on historical records and site characteristics, there are five conservation significant fauna species that could potentially occur within the application area (GIS Database).
Fauna habitat	Phoenix recorded three fauna habitat within the application area: - shrubland on stony hills/breakaway; - shrubland on undulating plain; and - woodland on plain (Phoenix, 2020).

A.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent Remaining %	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA Managed Lands
IBRA Bioregion Yalgoo	5,057,325.85	4,923,840.47	97.36	1,576,718.27	31.34
IBRA Subregion Talling	3,498,943.53	3,387,092.96	96.80	827,723.40	23.71
Local Government Shire of Yalgoo	2,794,946.37	2,733,268.13	97.79	628,939.11	22.51
Beard vegetation associations - State					
Veg Assoc No. 202	448,529.31	448,343.80	99.96	102,759.63	22.91
Veg Assoc No. 420	859,632.11	830,216.12	96.58	121,279.06	14.11
Beard vegetation associations - Bioregion					
Veg Assoc No. 202	45,096.14	45,011.91	99.81	1.00	0.00
Veg Assoc No. 420	621,396.05	620,265.57	99.82	101,785.89	16.38
Beard vegetation associations - subregion					
Veg Assoc No. 202	45,096.14	45,011.91	99.81	18,076.44	40.08
Veg Assoc No. 420	615,816.17	614,685.69	99.82	101,785.89	16.53

Government of Western Australia (2019)

A.3. Flora analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix D.1), and biological survey information (Maia, 2020; Woodman Environmental Consulting, 2013; Yilgarn Consulting, 2011; Western Australian Herbarium, 1998-; GIS Database), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Distance of closest record to application area (km)	Number of known records derived from Florabase (total)
<i>Acacia speckii</i>	4	<5	40
<i>Allocasuarina tessellata</i>	3	<20	50
<i>Amanita lesueurii</i>	2	<5	6
<i>Amanita validiuscula</i>	2	<20	2
<i>Calotis</i> sp. Perrinvale Station (R.J. Cranfield 7096)	3	0	24
<i>Chamelaucium</i> sp. Yalgoo (Y. Chadwick 1816)	1	<15	11
<i>Cyanicula fragrans</i>	3	<20	13

Species name	Conservation status	Distance of closest record to application area (km)	Number of known records derived from Florabase (total)
<i>Drummondia fulva</i>	3	0	19
<i>Eucalyptus synandra</i>	T	<20	68
<i>Grevillea globosa</i>	3	0	48
<i>Grevillea scabrada</i>	3	<20	46
<i>Haegiela tatei</i>	4	<10	22
<i>Micromyrtus trudgenii</i>	3	0	39
<i>Persoonia pentasticha</i>	3	<5	51
<i>Polianthion collinum</i>	3	0	23
<i>Psammomoya implexa</i>	3	<10	24
<i>Rhodanthe collina</i>	3	<5	40
<i>Stylidium scintillans</i>	T	0	23

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

A.4. Fauna analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix D.1), and biological survey information (Phoenix, 2020), impacts to the following conservation significant fauna required further consideration.

Species name	Common Name	Conservation status	Distance of closest record to application area (km)	Suitable habitat features? [Y/N]
<i>Calidris acuminata</i>	Sharp-tailed sandpiper	MI	<35	N
<i>Cyclodomorphus branchialis</i>	Gilled slender blue-tongue	VU	<10	Y
<i>Egernia stokesii badia</i>	western spiny-tailed skink	VU	<5	Y
<i>Falco peregrinus</i>	Peregrine falcon	OS	<15	Y
<i>Idiosoma clypeatum</i>	Northern shield-backed trapdoor spider	P3	<5	Y
<i>Idiosoma formosum</i>	ornate shield-backed trapdoor spider	EN	<40	N
<i>Leipoa ocellata</i>	malleefowl	VU	0	Y
<i>Notamacropus irma</i>	western brush wallaby	P4	<30	N
<i>Tringa nebularia</i>	Common greenshank, greenshank	MI	<30	N
<i>Tyto novaehollandiae novaehollandiae</i>	masked owl (southwest)	P3	<50	N

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, OS: Other Specially Protected

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity." <u>Assessment:</u> Maia recorded 244 taxa from 120 genera and 51 families within the survey area (958 hectares) (Maia, 2020). Six conservation significant flora species have been recorded within the application area (Maia, 2020; Woodman Environmental Consulting, 2013; Yilgarn Consulting, 2011; GIS Database) and 13 vegetation associations were recorded within the application area (Maia, 2020).	At variance (changed from CPS 9640/1)	Yes Refer to Section 3.2.1, above.
<u>Principle (b):</u> "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." <u>Assessment:</u> One conservation significant fauna species - Malleefowl (<i>Leipoa ocellata</i>) – was recorded within the application area (Phoenix, 2020).	At variance (changed from CPS 9640/1)	Yes Refer to Section 3.2.1, above.
<u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora." <u>Assessment:</u> One Threatened flora species, <i>Stylidium scintillans</i>, occurs within the application area (Maia, 2020).	At variance (changed from CPS 9640/1)	Yes Refer to Section 3.2.1, above.
<u>Principle (d):</u> "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." <u>Assessment:</u> There are no known Threatened Ecological Communities (TECs) located within the application area (GIS Database). Flora and vegetation surveys of the application area did not identify any TECs (Maia, 2020).	Not likely to be at variance (as per CPS 9640/1)	No
Environmental value: significant remnant vegetation and conservation areas		
<u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared." <u>Assessment:</u> The application area falls within the Yalgoo Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 97% of the pre-European vegetation still exists in the Yalgoo Bioregion IBRA (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 202 and 420 (GIS Database). These vegetation associations have not been extensively cleared as over 96% of the pre-European extent of these vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2019). The application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared (GIS Database).	Not at variance (as per CPS 9640/1)	No
<u>Principle (h):</u> "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." <u>Assessment:</u> There are no conservation areas located within the application area (GIS Database). The closest conservation area is a DBCA legislated land (Conservation Park) located approximately 10 kilometres east 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 (as per CPS 9640/1)	No
Environmental value: land and water resources		

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (f):</u> "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland." <u>Assessment:</u> There are no permanent watercourses or wetlands within the area proposed to clear (AECOM, 2020; GIS Database). Several seasonal creek lines pass through the application area (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (AECOM, 2020). Vegetation MCSL occurs on saline plains, broad flow lines and washout areas in the south-eastern section of the application area, and it has patches of samphire shrubland of <i>Tecticornia laevigata</i> within it (Maia, 2020). This area is not mapped as a wetland or lake and it is unlikely that the <i>Tecticornia</i> would be groundwater dependent, but rather, surface water dependent. Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation growing in association with watercourses may be minimised by the continued implementation of a watercourse management condition.	At variance (as per CPS 9640/1)	No
<u>Principle (g):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation." <u>Assessment:</u> The proposed clearing of up to 125.39 hectares of native vegetation within a boundary of approximately 417.95 hectares, for the purpose of mineral production may cause appreciable land degradation. Based on the above, the proposed clearing may be at variance to this Principle and potential impacts to the land may be minimised by the continued implementation of a staged clearing condition.	May be at variance (as per CPS 9640/1)	No
<u>Principle (i):</u> "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." <u>Assessment:</u> Given no water permanent courses, wetlands or Public Drinking Water Sources Areas are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality (GIS Database).	Not likely to be at variance (as per CPS 9640/1)	No
<u>Principle (j):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding." <u>Assessment:</u> There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events (GIS Database).	Not likely to be at variance (as per CPS 9640/1)	No

Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from 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.

Condition	Description
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Sources of information

D.1. GIS databases

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

- Cadastre (Polygon) (LGATE-217)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- IBRA Vegetation Statistics
- IBSA Survey Details (DWER-118)
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Native Title (Determination) (LGATE-066)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Townsites (LGATE-248)
- WA Now Aerial Imagery
- WRIMS - Groundwater Areas (DWER-085)
- WRIMS - Groundwater Resources (DWER-084)
- WRIMS - Groundwater Subareas (DWER-083)
- WRIMS - Surface Water Areas (DWER-082)
- WRIMS - Surface Water Resources (DWER-081)
- WRIMS - Surface Water Subareas (DWER-080)

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)

D.2. References

- 29 Metals Ltd (2023) Malleefowl Management Plan. Report prepared for Golden Grove Operations Pty Ltd by 29 Metals Ltd, August 2023.
- 29 Metals Ltd (2024) Golden Grove Gossan Valley Mining Proposal Rev 0 – Version 4. Report prepared for Golden Grove Operations Pty Ltd by 29 Metals Ltd, August 2024.

- AECOM (2020) Gossan Valley Underground Mine, Native Vegetation Clearing Permit Application. Unpublished report prepared for EMR Golden Grove by AECOM, September 2020.
- Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Weather Station Yalgoo: 007091. Bureau of Meteorology. <https://reg.bom.gov.au/climate/data/> (Accessed 14 April 2025).
- 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. Department of Agriculture, Perth. Technical Bulletin 84.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023) *Santalum spicatum* (Sandalwood) Biodiversity Management Programme. <https://www.dbca.wa.gov.au/management/sandalwood>
- Department of Environment Regulation (DER) (2014) *A guide to the assessment of applications to clear native vegetation*. Perth. https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf
- Department of Planning, Lands and Heritage (DPLH) (2025) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS> (Accessed 14 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://dpiird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f> (Accessed 14 April 2025).
- Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. <https://www.wa.gov.au/system/files/2023-06/procedure-native-vegetation-clearing-permits.pdf>
- Environmental Protection Authority (EPA) (2016a) 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) (2016b) Technical Guidance – Terrestrial Fauna Surveys. https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf
- Golden Grove (2024) Clearing permit application form, CPS 9046/2, received 4 June 2025.
- 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>
- Maia Environmental Consultancy (Maia) (2020) EMR Golden Grove: Gossan Valley study Area. Detailed Flora and Vegetation Assessment and *Stylidium scintillans* Census. Report prepared for EMR Golden Grove by Maia Environmental Consultancy, August 2020.
- Mattiske Consulting Pty Ltd (Mattiske) (2004) Priority flora search - Gossan Hill and Surrounds. Prepared for Newmont Golden Grove Operations, February 2004.
- Mattiske Consulting Pty Ltd (Mattiske) (1996) Flora and vegetation of Golden Grove Project, Murchison Zinc Company Pty Ltd. Prepared for John Consulting Services, December 1996.
- Phoenix Environmental Sciences (Phoenix) (2020) Terrestrial fauna survey for the Gossan Valley Project. Unpublished report prepared by Phoenix Environmental Sciences for EMR Golden Grove, March 2020.
- Trudgen, M.E. (1991) Vegetation condition scale in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.
- Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 14 April 2025).
- Woodman Environmental Consulting (2013) Minerals and Metals Group Limited Golden Grove Open Pit Expansion Project Baseline Flora and Vegetation Assessment. Report prepared for Metals Group Limited by Woodman Environmental Consulting Pty Ltd, August 2013.
- Yilgarn Consulting (2011) Golden Grove Targeted Searches for Threatened Flora 'Stylidium sp. Yalgoo' & Gossan Valley Vegetation and Flora Survey. Report prepared for Minerals and Metals Group Ltd by Yilgarn Consulting, November 2011.

4. Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)

DMP	Department of Mines and Petroleum, Western Australia (now DEMIRS)
DoEE	Department of the Environment and Energy (now DCCEEW)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

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

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.