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:	11189/1
Permit type:	Purpose permit
Applicant name:	Lunnon Metals Limited
Application received:	18 July 2025
Application area:	38 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical removal
Tenure:	Mining Leases 15/1549, 15/1550, 15/1553, 15/1576 and 15/1590
Location (LGA area):	Shire of Coolgardie
Colloquial name:	Lady Herial Project

1.2. Description of clearing activities

Lunnon Metals Limited proposes to clear up to 38 hectares of native vegetation within a boundary of approximately 174.8 hectares, for the purpose of mineral production and associated activities (Lunnon, 2025). The project is located approximately 21 kilometres southeast of Kambalda, within the Shire of Coolgardie (GIS Database).

The application is to allow for the development of the Lady Herial Project, which includes an open pit gold mine, waste rock landform, hardstand areas, run of mine pad, magazine hut, workshops and associated infrastructure (Talis, 2025b).

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	16 December 2025
Decision area:	38 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 Mines, Petroleum and Exploration (DMPE) advertised the application for a public comment for a period of 21 days, and one submission was received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix C), relevant datasets (**Error! Reference source not found.**), supporting information provided by the applicant (Appendix A) including the results of a flora and vegetation survey (Appendix F), the clearing principles set out in Schedule 5 of the EP Act (Appendix D), 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;
- the loss of southern whiteface (*Aphelocephala leucopsis*) breeding habitat (active nests);
- the increased risk of fauna injury or mortality; and
- potential land degradation in the form of water erosion and associated downstream sedimentation.

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

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

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;

- a fauna management (southern whiteface) condition requiring areas proposed to be cleared between 1 July and 31 October are inspected to identify active (in use) southern whiteface nests, and to maintain a 50 metre buffer around identified active nests;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity; and
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion.

2. Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)

Relevant agreements (treaties) considered during the assessment include:

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

The key guidance documents which inform this assessment are:

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

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The site layout has been designed to utilise previously cleared and disturbed areas where possible (Lunnon, 2025). Where possible clearing vegetation which is in Very Good Keighery (1994) condition will be avoided (Lunnon, 2025).

The applicant has committed to take hygiene steps to minimise the risk of the introduction and spread of weeds (Lunnon, 2025).

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

In assessing the application, the Delegated Officer has had regard for the site characteristics (Appendix C) 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 (flora and fauna). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (flora) - Clearing principle (a)

Assessment

Based on the presence of nearby records and potentially suitable habitat within the application area, the following conservation significant flora species require further discussion (Botanica, 2024; WAH, 1998-; GIS Database).

Priority 1

Ricinocarpos digynus inhabits rocky clay-loam on rocky hillslopes (WAH, 1998-). Habitat for this species occurs within the application area (Botanica, 2024). *Ricinocarpos digynus* has one known record within a 50 kilometre radius of the application area, located approximately 20 kilometres north of the application area (GIS Database). The remaining nine known records of the species are located further north, within the Coolgardie and Murchison bioregions (WAH, 1998-; GIS Database). As the

application area is not within the known distribution of this species, it is unlikely that *Ricinocarpos digynus* occurs within the application area, and therefore unlikely that it will be impacted by the proposed clearing.

Philotheca apiculata inhabits stony clay-loam on rocky outcrops or hillsides (WAH, 1998-). Habitat for this species occurs within the application area (Botanica, 2024). This species is known from 28 Western Australian Herbarium (1998-) records across the Coolgardie, Avon Wheatbelt and Mallee bioregions. *Philotheca apiculata* is an erect shrub that flowers between August and November (WAH, 1998-). Although this species possibly occurs within the application area, as the spring survey was conducted within this period, it is likely that this species would have been detectable, and the impacts of clearing are therefore unlikely to be significant to the conservation of this species (Botanica, 2024).

Acacia websteri inhabits red sand, clay or loam over low-lying areas and flats (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). All known records of the species are to the northwest of the application area, with the nearest record over 35 kilometres northwest of the application area (GIS Database). As the application area is outside of the known distribution of this species, *Acacia websteri* is unlikely to occur within the application area and is therefore unlikely to be impacted by the proposed clearing (GIS Database).

Lepidosperma sp. Parker Range (N. Gibson & M. Lyons 2094) inhabits rocky soils and loams on slopes (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). Based on habitat descriptions from the seven known records of this species, it can be inferred that the preferred habitat for this species is rocky outcrops and ridges (WAH, 1998-). As this preferred habitat does not occur within the application area, *Lepidosperma* sp. Parker Range is unlikely to occur, and therefore unlikely to be impacted by the proposed clearing (Botanica, 2024).

Priority 2

Eremophila praecox inhabits sandy loams on undulating plains (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). As *Eremophila praecox* is known from 52 Western Australian Herbarium (1998-) records and is well represented in conservation reserves, the proposed clearing is unlikely to be significant to the conservation of *Eremophila praecox*, if it were to occur within the application area (GIS Database).

Xanthoparmelia xanthomelanoides inhabits clay and lateritic rocky soils (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). The species is known from seven Western Australian Herbarium (1998-) records across seven bioregions, including one record in the Coolgardie bioregion. Two of these records are located within the conservation estate (WAH, 1998-). As this species is not restricted to the bioregion, and has been recorded within the conservation estate, the proposed clearing is unlikely to result in a significant impact to this species.

Acacia kerryana inhabits clay-loam or stony soils on hills or undulating plains soils (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). This species is known from 16 Western Australian Herbarium (1998-) records and is restricted to the Coolgardie bioregion. There is one known record of *Acacia kerryana* within a 50 kilometre radius of the application area (GIS Database). This record is approximately 30 kilometres northwest of the application area, and was recorded in 1981 (GIS Database). All other records of the species are recorded further south of the application area, near Norseman and west to Lake Cronin (GIS Database). As the application area is outside of the core distribution of this species, *Acacia kerryana* is unlikely to occur within the application area, and is therefore unlikely to be impacted by the proposed clearing (GIS Database).

Priority 3

Austrostipa turbinata (formerly *Austrostipa* sp. Carlingup Road) inhabits rocky loams with laterite (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). As *Austrostipa turbinata* is known from 25 Western Australian Herbarium (1998-) records from multiple bioregions and is represented in conservation reserves, the proposed clearing is unlikely to be significant to the conservation of *Austrostipa turbinata*, if it were to occur within the application area (GIS Database).

Eremophila veronica inhabits stony clay or clay-loam soils with laterite (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). As *Eremophila veronica* is known from 16 Western Australian Herbarium (1998-) records from the Coolgardie and Murchison bioregions and is represented in conservation reserves, the proposed clearing is unlikely to be significant to the conservation of *Eremophila veronica*, if it were to occur within the application area (GIS Database).

Phlegmatospermum eremaeum inhabits stony loam (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). As *Phlegmatospermum eremaeum* is known from 18 Western Australian Herbarium (1998-) records and is well represented in conservation reserves, the proposed clearing is unlikely to be significant to the conservation of *Phlegmatospermum eremaeum*, if it were to occur within the application area (GIS Database).

Eremophila annosicaulis inhabits stony loams or sandy soils on rocky plains and hills (WAH, 1998-). Approximately 28.23 hectares of suitable habitat for this species occurs within the application area, in the RH-AS1 and RH-CW1 vegetation associations (Botanica, 2024; Talis, 2025b; Appendix F). The species is known from five specimens at the WA Herbarium within the Coolgardie, Murchison and Gascoyne IBRA regions (WAH, 1998-). As this species is known from few records and does not have any known populations within the conservation estate, the proposed clearing may result in a significant impact to this species, if it occurs undetected within the application area (WAH, 1998-). The survey by Botanica (2024) was conducted outside of the flowering period for this species, however, as *Eremophila annosicaulis* is distinguishable from other *Eremophila* species by its stems, it would have been detectable during the survey (Chinnock, 2007; WAH, 1998-). Additionally, where *Eremophila annosicaulis* has been recorded it is usually common (GIS Database). Therefore, the likelihood of occurrence for this species is lowered. As *Eremophila annosicaulis* is unlikely to occur, it is unlikely to be impacted by the proposed clearing.

Acacia crenulata inhabits clay, sandy clay or sandy soils on rocky slopes (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). All known records of the species are northwest of the application area, with the nearest record over 30 kilometres northwest of the application area (GIS Database). As the application area is outside of the known distribution of this species, *Acacia crenulata* is unlikely to occur within the application area, and is therefore unlikely to be impacted by the proposed clearing (GIS Database).

Eucalyptus urna subsp. *xesta* inhabits loamy soils on flats within open *Eucalyptus* woodlands (WAH, 1998-). Suitable habitat occurs within the application area (Botanica, 2024). *Eucalyptus urna* subsp. *xesta* is known from 25 Western Australian Herbarium (1998-) records in the Coolgardie, Avon Wheatbelt and Mallee bioregions and is represented in conservation reserves. Therefore, the proposed clearing is unlikely to be significant to the conservation of *Eucalyptus urna* subsp. *xesta*, if it were to occur within the application area (GIS Database).

Eremophila arachnoides subsp. *tenera* is typically found in salmon gum woodlands on clay loam soils (WAH, 1998-). Suitable habitat for this taxon occurs within the application area (Botanica, 2024). Of the 18 Western Australian Herbarium (1998-) *Eremophila arachnoides* subsp. *tenera* records, 17 are located within a 60 kilometre radius of each other, east of Kalgoorlie in the Coolgardie and Murchison bioregions (GIS Database). These records were collected between 1997 and 2025, with the majority being collected in 2019 (WAH, 1998-; GIS Database). The application area is outside of this distribution, with the nearest records being located approximately 40 kilometres northeast of the application area (WAH, 1998-; GIS Database). The remaining record is located northeast of Laverton within the Great Victoria Desert bioregion, and was recorded in 2010 (WAH, 1998-; GIS Database). Given the application area is outside of the taxon's known extent of occurrence, *Eremophila arachnoides* subsp. *tenera* is considered unlikely to occur within the application area (Botanica, 2024; WAH, 1998-; GIS Database). Therefore, it is unlikely to be impacted by the proposed clearing.

Eremophila succinea inhabits clay or sand over clay (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). *Eremophila succinea* is known from 10 Western Australian Herbarium (1998-) records in the Coolgardie and Mallee bioregions and is well represented in conservation reserves. Therefore, the proposed clearing is unlikely to be significant to the conservation of *Eremophila succinea*, if it were to occur within the application area (GIS Database).

Priority 4

Eremophila caerulea subsp. *merrallii* inhabits sand, clay or loam soils on undulating plains (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). *Eremophila caerulea* subsp. *merrallii* is known from 23 Western Australian Herbarium (1998-) records in the Coolgardie, Avon Wheatbelt and Mallee bioregions and is represented in conservation reserves. Therefore, the proposed clearing is unlikely to be significant to the conservation of *Eremophila caerulea* subsp. *merrallii*, if it were to occur within the application area (GIS Database).

Delisted

Eucalyptus websteriana subsp. *norsemanica*, Priority 1, inhabits rocky rises (WAH, 1998-). Potentially suitable habitat occurs within the application area (Botanica, 2024). However, the subspecies *Eucalyptus websteriana* subsp. *norsemanica* is not current, with the subspecies being synonymous with *Eucalyptus websteriana* (WAH, 1998-). *Eucalyptus websteriana* is not listed as a species of conservation concern, and therefore does not require further consideration (WAH, 1998-).

Conclusion

Based on the above assessment, the proposed clearing is unlikely to result in a significant impact to priority flora.

Conditions

No flora management conditions required.

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

Assessment

Species potentially impacted by the proposed clearing

Southern whiteface (*Aphelocephala leucopsis*), Vulnerable, occurs across most of mainland Australia, within open woodlands and shrublands where there is an understorey of grasses, shrubs or both (DCCEEW, 2023). These areas are usually dominated by *Acacias* or *Eucalypts* on ranges, foothills, lowlands and plains (DCCEEW, 2023). Suitable southern whiteface habitat occurs within the application area, so southern whiteface possibly occurs (Botanica, 2024). Habitat used for breeding is considered critical for southern whiteface conservation, and should not be cleared (DCCEEW, 2023). Southern whiteface nests in large bulky domed-shaped nests made out of grass, bark and roots within hollows or crevices in trees, and low bushes (DCCEEW, 2023). As potentially suitable breeding habitat occurs, the proposed clearing may have a significant impact on southern whiteface, if active nests are cleared.

Species possibly occurring but unlikely to be significantly impacted by the proposed clearing

Malleefowl (*Leipoa ocellata*), Vulnerable, occur within arid and semi-arid woodlands (CALM, n.d.). The nearest malleefowl record is four kilometres from the application area (GIS Database). As breeding habitat for malleefowl requires a sandy substrate and a dense shrub layer, malleefowl are unlikely to nest within the application area (DCCEEW, 2024). This is due to the application area consisting of clay-loam or rocky landforms (Botanica, 2024). Malleefowl may pass through the application area during dispersal.

Peregrine falcon (*Falco peregrinus*), Other Specially Protected, is a migratory species. Within their global range, peregrine falcons can be found in a variety of habitats, including mountains, forests, cities, valleys, deserts, and coastlines (Australian Museum, 2019; NWF, n.d.). As suitable habitat occurs, and the species has been recorded within 25 kilometres of the application area, peregrine falcons possibly occur within the application area to disperse or forage (Botanica, 2024; GIS Database). As the species is wide-ranging, and suitable habitat is abundant in the surrounding area, impacts to this species due to the proposed clearing are unlikely to be significant (GIS Database).

Grey falcon (*Falco hypoleucos*), Vulnerable, is a nomadic species that occurs at low densities across inland Australia (Birdlife International, 2022). In inhabits timbered plains, particularly Acacia shrublands near tree-lined watercourses (Birdlife International, 2022; Garnett & Crowley, 2000). Grey falcons possibly occur within the application area to forage (Botanica, 2024). As foraging habitat is widespread in the surrounding area and as the species is nomadic, foraging habitat within the application area is unlikely to be significant (Birdlife International, 2022; Botanica, 2024; GIS Database).

Western rosella (inland) (*Platycercus icterotis xanthogenys*), Priority 4, inhabits drier eucalypt and sheoak woodlands and scrubs, especially those containing wandoo (*E. wandoo*), flooded gum, salmon gum (*E. salmonophloia*), tall mallee and rock sheoak (*Allocasuarina huegeliana*) (Birdlife Australia, 2017; DEC, 2009). The CLP-EW2 (*Eucalyptus* woodland on clay-loam plain) habitat is dominated by a *E. salmonophloia* overstorey, and is suitable habitat for western rosella (Botanica, 2024). The species nests in tree hollows, and prefers *Casuarinas* for foraging (Garnett & Crowley, 2000). Suitable foraging habitat, and potentially suitable breeding habitat occur within the application area (Botanica, 2024). However, given that suitable habitat is widespread in the surrounding area and the taxon is wide ranging and mobile, the proposed clearing of suitable habitat is unlikely to be significant for the conservation of western rosella (inland).

Fork-tailed swift (*Apus pacificus*), Migratory, is an aerial species (Commonwealth of Australia, 2008). It may occur in the airspace above the application area.

Inland hairstreak (*Jalmenus aridus*), Priority 2, is a butterfly species known from the Goldfields region (DBCA, 2025a). Preferred habitat for inland hairstreak consists of open woodland with flowering shrubs such as those from the *Senna*, *Eremophila*, *Scaveola* and *Maireana* genera (Eastwood et al., 2023). The inland hairstreak has an association with *Froggattella kirbii* ants (Eastwood et al., 2023). Open woodland is a habitat within the application area, and *Eremophila* is one of the dominant genera (Botanica, 2024). *Jalmenus aridus* larvae have been recorded on *Senna artemisioides* subsp. *filifolia* and *Acacia tetragonophylla*, which have both been recorded within the application area (Botanica, 2024; Eastwood et al., 2023). As suitable habitat elements are present, further survey work was required to determine whether the application area includes critical habitat for *Jalmenus aridus* (Bennelongia, 2025). During the survey conducted by Invertebrate Solutions (2025b) to determine whether arid bronze azure butterfly (ABAB) habitat occurs within the application area, the application area was also assessed to determine whether critical inland hairstreak habitat was present (Invertebrate Solutions, 2025a; Talis, 2025a). As no *Froggattella kirbii* ants were observed on any of the *Acacia tetragonophylla* sighted during the ABAB transects, the application area is not considered to be critical habitat for the inland hairstreak (Invertebrate Solutions, 2025a; Talis, 2025a).

Species unlikely to occur

Arid bronze azure butterfly (ABAB) (*Ogyris petrina*), Critically Endangered, is threatened by clearing and habitat degradation (DBCA, 2025b). The ABAB has an obligate association with a sugar ant *Camponotus* sp. nr. *terebrans*, so critical breeding habitat for ABAB are areas which have colonies of the host ant (DBCA, 2025b). The host ant creates nests at the base of smooth-barked *Eucalyptus* trees (DBCA, 2025b). The CLP-EW1 and CLP-EW2 habitats, which occur within the application area, are characterised by the presence of *E. salubris* (gimlet) and *E. salmonophloia* (salmon gum) (Botanica, 2024). Both species are known host ant habitat trees (DBCA, 2025b).

The survey guidance for ABAB recommends that prior to surveying for the butterfly, an ant survey is first conducted (DBCA, 2020a). An ant survey has been conducted over the application area by Invertebrate Solutions (2025b). The survey included a sample of 126 trees, which were each searched for the host ant (Invertebrate Solutions, 2025b). This is in line with the DBCA (2020a) survey guidance. The survey detected a single small *Camponotus* sp. nr. *terebrans* nest at the western edge of the application area (Invertebrate Solutions, 2025b). As a large colony of ants was not detected, no further surveys are required for ABAB, and the area is not considered critical habitat for ABAB (DBCA, 2025b; 2020b; DMPE, 2022; Invertebrate Solutions, 2025b).

Chuditch (*Dasyurus geoffroii*), Vulnerable, previously occurred throughout arid and semi-arid Australia, but is now restricted to southwest Western Australia (Commonwealth of Australia, 2008). Within their current range chuditch occur within jarrah forests and woodlands in south-western corner of Western Australia, woodlands, mallee shrublands and heaths along the south coast of Western Australia east to Ravensthorpe, and drier woodlands and mallee shrubland within the Wheatbelt and Goldfields region (DEC, 2012). The application area is located at the edge of this species known distribution and suitable habitat range, and the nearest record was recorded in 1974 (Commonwealth of Australia, 2008; GIS Database). It is unlikely that chuditch occurs within the application area.

Red-tailed phascogale (*Phascogale calura*), Conservation Dependent, previously occurred in arid areas of Western Australia and the Northern Territory, but is now restricted to less than one percent of its former range (TSSC, 2016). It now occurs in remnant vegetation in the southern wheatbelt of Western Australia, where annual mean rainfall is 400 to 500 millimetres (TSSC, 2016). It occurs within the Avon Wheatbelt, Jarrah Forest, Mallee and Esperance Plains Interim Biogeographic Regionalisation for Australia (IBRA) Bioregions (TSSC, 2016). As the species is not currently known to occur in the Goldfields IBRA Bioregion, it is unlikely that it occurs in the application area, especially given it has only been recorded once within a 50 kilometre radius of the application area, and this recording is uncertain (GIS Database).

Conclusion

Based on the above assessment, the proposed clearing will result in clearing of potentially significant habitat for southern whiteface. Mechanical clearing may put malleefowl at risk of injury or mortality. Peregrine falcon, grey falcon, western rosella and fork-tailed swift are unlikely to be significantly impacted by the proposed clearing as these species are highly mobile, and suitable habitat is abundant in the surrounding area. Inland hairstreak is unlikely to be significantly impacted by the proposed clearing, as the application area does not represent critical habitat for the species. ABAB, chuditch and red-tailed phascogale are unlikely to be impacted by the proposed clearing as they are unlikely to occur.

For the reasons set out above, it is considered that the impacts of the proposed clearing on southern whiteface can be managed through species specific fauna management conditions.

Risk of fauna injury or mortality can be reduced by allowing fauna including malleefowl to move into adjacent vegetation ahead of the clearing activity.

The applicant may have notification responsibilities under the EPBC Act for impacts to southern whiteface and their habitats, as set out in the EPBC Act. The applicant has been advised to contact the federal Department of Climate Change, Energy, the Environment and Water (DCCEEW) to discuss EPBC Act referral requirements.

Conditions

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

- a fauna management (southern whiteface) condition requiring areas proposed to be cleared between 1 July and 31 October are inspected to identify active (in use) southern whiteface nests, and to maintain a 50 metre buffer around identified active nests;
- slow directional clearing to allow malleefowl and other terrestrial fauna to move into adjacent vegetation ahead of the clearing activity will minimise impact to individuals.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 10 October 2025 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. One submission was received in relation to this application (see Appendix B).

There is one native title claim (WCD2017/002 - Ngadju Part B) over the area under application (DPLH, 2025). This claim has been determined by the Federal Court on behalf of the claimant group. The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 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.

This clearing permit application is located within the development envelope of the 'St Ives Gold Mine: the Beyond 2018 Project', which was formally assessed by the Environmental Protection Authority (EPA) and approved under Ministerial Statement 1128 on 18 March 2020 (State of Western Australia, 2020; GIS Database). As St Ives Gold Mining Company Pty Limited is the proponent approved to implement the proposal, and St Ives Gold Mining Company Pty Limited is not the tenement holder of Mining Leases 15/1549, 15/1550, 15/1553, 15/1576 and 15/1590, the 'St Ives Gold Mine: the Beyond 2018 Project' cannot be implemented on this tenure (State of Western Australia, 2020; GIS Database). Therefore, Lunnon Metals Limited's Lady Herial Project is not related to Ministerial Statement 1128 and is subject to a separate set of approvals, including a native vegetation clearing permit (Talis, 2025c; Appendix A).

It is noted that the proposed clearing may impact on southern whiteface and their habitats, which are protected matters under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Commonwealth) Department of Climate Change, Energy, the 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 for further information regarding notification and referral responsibilities under the EPBC Act.

Other relevant authorisations required for the proposed land use include:

- A Mining Development and Closure Proposal approved under the *Mining Act 1978*

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

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
The applicant provided a response regarding the interaction between CPS 11189/1 and Ministerial Statement 1128 (Talis, 2025c).	This interaction has been addressed in Section 3.3.
The applicant provided the desktop assessment for short-range endemic (SRE) invertebrates and conservation significant butterflies by Bennelongia (2025).	This information has been considered in the assessment of principle (b).
Additional information was provided regarding habitat for the inland hairstreak butterfly (Invertebrate Solutions, 2025a; Talis, 2025a).	This information has been considered in the assessment of principle (b).

Appendix B. Details of public submissions

Summary of comments	Consideration of comment
The Shire of Coolgardie has no objection to the proposed clearing, provided the approval does not authorise any closure of dedicated or vested roads (Shire of Coolgardie, 2025).	The granting of this clearing permit does not authorise the closure of roads. Road closure is subject to separate approval from the Shire of Coolgardie (Shire of Coolgardie, 2025). The Shire of Coolgardie's comments were passed onto the applicant for their consideration.

Appendix C. Site characteristics

C.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia (GIS Database). It is located within the Eastern Goldfield subregion of the Coolgardie bioregions (GIS Database). The area proposed to be cleared is located within an unmanaged Crown reserve (Shire of Coolgardie, 2025; GIS Database). It is part of the Great Western Woodlands (GIS Database). It is also surrounded by predominantly gold and nickel mining operations (GIS Database). Approximately 99 percent of the local area (50 kilometre radius from the application area) remains uncleared (GIS Database).
Ecological linkage	The application area is not known to be an important ecological linkage (GIS Database).
Conservation areas	The application area is not located within any conservation areas (GIS Database). The nearest conservation area is the Ngadju Indigenous Protected Area (IPA), located on Lake Lefroy, approximately 2.2 kilometres west of the application area (GIS Database). The nearest DBCA legislated conservation area is the Kambalda Timber Reserve approximately 17.3 kilometres northwest of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 9: Woodland (gimlet, redwood etc.); and 936: Woodland (gimlet, redwood etc.) (GIS Database). A flora and vegetation survey was conducted over the application area by Botanica Consulting (2024) in Autumn and Spring of 2024. The following vegetation associations were recorded within the application area: • CLP-EW1 (*Eucalyptus* open woodland on clay-loam plain); • CLP-EW2 (*Eucalyptus* woodland on clay-loam plain); • RH-CW1 (*Casuarina* low open woodland on rocky hillslope); • RH-AS1 (*Acacia* tall open woodland on rocky hillslope); and • cleared areas (Botanica, 2024). Descriptions and representative photographs of the Botanica (2024) vegetation associations are provided in Appendix F.
Vegetation condition	The vegetation survey (Botanica, 2024) indicates the vegetation within the proposed clearing area is in Very Good to Completely Degraded (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix E.
Climate and landform	The climate of the Eastern Goldfield subregion is described as arid to semi-arid, with the nearest weather station (Kambalda West) recording an average rainfall of approximately 287 millimetres per year (BoM, 2025; CALM, 2002).

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td></td><td>The application area is flat to gently-sloping and mapped at elevations of 300-350 metres Australian height datum (Talis, 2025b; GIS Database). Land system mapping broadly describes the application area as plains and low rises (DPIRD, 2025).</td></tr>
<tr><td>Soil description</td><td>The soils within the application area are broadly mapped as the following (DPIRD, 2025):
<table>
<tr><th>System</th><th>Description</th></tr>
<tr><td>Doney system (265Do)</td><td>Calcareous alluvial plains with eucalypt woodlands adjacent to salt lake systems</td></tr>
<tr><td>Moriarty system (265Mo)</td><td>Low greenstone rises and stony plains supporting chenopod shrublands with patchy eucalypt overstoreys</td></tr>
<tr><td>Graves system (265Gr)</td><td>Basalt and greenstone rises and low hills supporting eucalypt woodlands with prominent saltbush and bluebush understoreys</td></tr>
</table></td></tr>
<tr><td>Land degradation risk</td><td>The Doney land system is generally not susceptible to erosion, although drainage tracts are susceptible, particularly if perennial plant cover is substantially reduced (Waddell & Galloway, 2023).

The slopes of low rises without protective stone mantles, alluvial plains, and narrow drainage tracts in the Moriarty land system are moderately susceptible to water erosion if perennial shrub cover is substantially reduced or the soil surface is disturbed (Waddell & Galloway, 2023).

Stony mantles and moderately dense vegetation mean the Graves land system is generally not prone to erosion, unless the protective mantle is disturbed, which most often occurs with construction of exploration tracks and drill pads (Waddell & Galloway, 2023). Alluvial plains in valley floors are susceptible to water erosion where perennial shrub cover is substantially reduced, or the soil surface is disturbed (Waddell & Galloway, 2023).</td></tr>
<tr><td>Waterbodies</td><td>The desktop assessment and aerial imagery indicated that no watercourses or waterbodies occur within the application area (GIS Database). The application area is located approximately two kilometres east of Lake Lefroy (GIS Database).</td></tr>
<tr><td>Hydrogeography</td><td>The application area is not within any mapped Public Drinking Water Source Areas (PDWSA) or legislated surface water areas (GIS Database). The nearest PDWSA is the Broad Arrow Dam Catchment Area located approximately 108 kilometres to the northwest of the application area (GIS Database).

The application area is located within the Goldfields Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914 (GIS Database).

The groundwater salinity of the permit area has been broadly mapped as being 14,000-35,000 milligrams per litre total dissolved solids, which is considered saline (NWGA, 2023; GIS Database).</td></tr>
<tr><td>Flora</td><td>There are records of one threatened flora species and 43 priority flora species within a 50 kilometre radius of the application area (GIS Database). The nearest record is less than ten kilometres from the application area (GIS Database).</td></tr>
<tr><td>Ecological communities</td><td>The biological survey did not record any threatened ecological communities (TECs) or priority ecological communities (PECs) within the application area (Botanica, 2024).

There are no TECs known to occur within the Coolgardie bioregion (DBCA, 2023).

There is one PEC recorded within a 50 kilometre radius of the application area (GIS Database). This is the Mount Belches Banded Iron Formation (BIF) PEC (GIS Database). As the application area has not been mapped as BIF, it is unlikely this PEC occurs within the application area (Botanica, 2024; GIS Database).</td></tr>
<tr><td>Fauna</td><td>There are records of seven fauna of conservation significance within the local area (50 kilometres radius), with the closest record approximately four kilometres from the application area (GIS Database).</td></tr>
<tr><td>Fauna habitat</td><td>Fauna habitat was mapped based on the Botanica (2024) vegetation associations. The following fauna habitats occur within the application area:
CLP-EW1 (Eucalyptus open woodland on clay-loam plain);
CLP-EW2 (Eucalyptus woodland on clay-loam plain);
RH-CW1 (Casuarina low open woodland on rocky hillslope);
RH-AS1 (Acacia tall open woodland on rocky hillslope); and
cleared areas (Botanica, 2024).</td></tr>
</table>

C.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 - Coolgardie	12,912,204.35	12,648,491.39	~98	2,114,349.37	16.37
Beard vegetation associations - State					
9	240,509.33	235,161.94	~98	18,984.28	7.89
936	698,752.00	676,689.18	~97	28,010.13	4.01
Beard vegetation associations - Bioregion (Coolgardie)					
9	240,441.99	235,100.97	~98	18,984.28	7.90
936	586,792.23	584,336.14	~99	18,103.64	3.09

Government of Western Australia (2019)

C.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix G.1), and biological survey information (Botanica, 2024), impacts to the following conservation significant flora required further consideration.

Likelihood of occurrence for these species was determined based on habitat requirements and distribution (Barrett, 2007; Botanica, 2024; WAH, 1998-).

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Threatened				
Tetratheca spenceri	T	N	<35	Unlikely
Priority 1				
Eremophila perglandulosa	P1	N	<15	Unlikely
Tecticornia mellarium	P1	N	<15	Unlikely
Calandrinia lefroyensis	P1	N	<20	Unlikely
Cyathostemon divaricatus	P1	N	<20	Unlikely
Prostanthera splendens	P1	N	<20	Unlikely
Ricinocarpos digynus	P1	Y	<20	Unlikely – discussed in Section 3.2.1
Gunniopsis sp. Coolgardie (A.A. Mitchell et al. AAM 10238)	P1	N	<25	Unlikely
Philotheca apiculata	P1	Y	<25	Possible – discussed in Section 3.2.1
Pterostylis xerampelina	P1	N	<25	Unlikely
Ptilotus rigidus	P1	N	<25	Unlikely
Grevillea phillipsiana	P1	N	<30	Unlikely
Thryptomene planiflora	P1	N	<30	Unlikely
Acacia websteri	P1	Y	<35	Unlikely – discussed in Section 3.2.1
Lepidosperma lyonsii	P1	N	<35	Unlikely
Lepidosperma sp. Parker Range (N. Gibson & M. Lyons 2094)	P1	Y	<35	Unlikely – discussed in Section 3.2.1
Priority 2				
Tecticornia flabelliformis	P2	N	<15	Unlikely
Eremophila praecox	P2	Y	<20	Possible – discussed in Section 3.2.1

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Trachymene pyrophila	P2	N	<20	Unlikely
Xanthoparmelia xanthomelanoides	P2	Y	<20	Possible – discussed in Section 3.2.1
Lepidosperma sp. Kambalda (A.A. Mitchell 5156)	P2	N	<25	Unlikely
Phebalium clavatum	P2	N	<25	Unlikely
Acacia kerryana	P2	Y	<35	Unlikely – discussed in Section 3.2.1
Priority 3				
Chrysocephalum apiculatum subsp. *norsemanense*	P3	N	<10	Unlikely
Melaleuca coccinea	P3	N	<15	Unlikely
Pityrodia scabra subsp. *dendrotricha*	P3	N	<15	Unlikely
Allocasuarina eriochlamys subsp. *grossa*	P3	N	<25	Unlikely
Austrostipa turbinata (formerly *Austrostipa* sp. Carlingup Road)	P3	Y	<25	Possible – discussed in Section 3.2.1
Eremophila veronica	P3	Y	<25	Possible – discussed in Section 3.2.1
Phlegmatospermum eremaeum	P3	Y	<25	Possible – discussed in Section 3.2.1
Eremophila annosicaulis	P3	Y	<30	Unlikely – discussed in Section 3.2.1
Styphelia rectiloba	P3	N	<30	Unlikely
Acacia crenulata	P3	Y	<35	Unlikely – discussed in Section 3.2.1
Cratystylis centralis	P3	N	<35	Unlikely
Eucalyptus urna subsp. *xesta*	P3	Y	<35	Possible – discussed in Section 3.2.1
Stackhousia muricata subsp. Perennial (W.R. Barker 3641)	P3	N	<35	Unlikely
Stylidium choreanthum	P3	N	<35	Unlikely
Eremophila arachnoides subsp. *tenera*	P3	Y	<40	Unlikely – discussed in Section 3.2.1
Eremophila succinea	P3	Y	<45	Possible – discussed in Section 3.2.1
Acacia dissona var. *indoloria*	P3	N	<50	Unlikely
Priority 4				
Eucalyptus x brachyphylla	P4	N	<15	Unlikely
Eucalyptus kruseana	P4	N	<35	Unlikely
Eremophila caerulea subsp. *merrallii*	P4	Y	<50	Possible – discussed in Section 3.2.1
Delisted				
Eucalyptus websteriana (formerly *Eucalyptus websteriana* subsp. *norsemanica*)	No listing	Y	<40	Possible – discussed in Section 3.2.1

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

C.4. Fauna analysis table

The following species have been considered in this assessment as they have been recorded within 50 kilometres of the application area (GIS Database), suitable habitat for the species occurs within the application area, or the species was included in the Botanica (2024) assessment.

Likelihood of occurrence for these species was determined based on habitat requirements and distribution, using a range of sources (Australian Museum, 2019; Bennelongia, 2025; BoM, 2025; Botanica, 2024; Commonwealth of Australia, 2008; DBCA, 2024; 2025b; DCCEEW, 2023; 2024; DEC, 2009; 2012; Eastwood et al., 2023; Garnett & Crowley, 2000; Menkhorst et al., 2019; TSSC, 2016; WAH, 1998-; GIS Database).

Species name		Conservation status		Distance of closest record to application area (km)	Suitable habitat features? [Y/N]	Likelihood of occurrence
Common name	Scientific name	WA	EPBC			
Malleefowl	*Leipoa ocellata*	VU	VU	4.0	Y	Possible – discussed in Section 3.2.2
Peregrine falcon	*Falco peregrinus*	OS	-	24.5	Y	Possible – discussed in Section 3.2.2
Western rosella (inland)	*Platycercus icterotis xanthogenys*	P4	-	37.0	Y	Possible – discussed in Section 3.2.2
Grey falcon	*Falco hypoleucos*	VU	VU	~63	Y	Possible – discussed in Section 3.2.2
Inland hairstreak	*Jalmenus aridus*	P2	-	~65	Y	Possible – discussed in Section 3.2.2
Fork-tailed swift	*Apus pacificus*	MI	MI	~97	Y	Possible – discussed in Section 3.2.2
Southern whiteface	*Aphelocephala leucopsis*	VU	VU	~467	Y	Possible – discussed in Section 3.2.2
Arid bronze azure butterfly (ABAB)	*Ogyris petrina*	CR	CR	~64	N	Unlikely – discussed in Section 3.2.2
Chuditch	*Dasyurus geoffroii*	VU	VU	21.2	Y	Unlikely – discussed in Section 3.2.2
Red-tailed phascogale	*Phascogale calura*	CD	VU	35.6	Y	Unlikely – discussed in Section 3.2.2
Sharp-tailed sandpiper	*Calidris acuminata*	MI	MI	20.4	N	Unlikely
Night parrot	*Pezoporus occidentalis*	CR	EN	39.2	N	Unlikely

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

Appendix D. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared is unlikely to contain conservation significant flora or assemblages of plants. However, the area proposed to be cleared may contain significant habitat for conservation significant fauna.	May be at variance	Yes *Refer to Section 3.2.1 and Section 3.2.2, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The area proposed to be cleared may contain significant habitat for conservation significant fauna.	May be 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: The local area (50 kilometre radius of the application area) contains records of one flora species (*Tetratheca spenceri*) listed under the BC Act (GIS Database). Suitable habitat for this species does not occur within the application area (Botanica, 2024; WAH, 1998-). As this is the only threatened flora species in the local area, and it is unlikely to occur within the application area.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
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 survey of the application area did not detect any Threatened Ecological Communities (TECs) (Botanica, 2024). Additionally, there are no TECs known to occur within the Coolgardie bioregion (DBCA, 2023). Therefore, TECs are unlikely to occur within the application area.	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 extent of native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001; Appendix C.2). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.	Not at variance	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: The nearest conservation area is the Ngadju Indigenous Protected Area (IPA), located on Lake Lefroy, approximately 2.2 kilometres west of the application area (GIS Database). As there are no watercourses located within the application area, the environmental values of Lake Lefroy are unlikely to be impacted (GIS Database). However, any potential impacts from sedimentation can be managed with a staged clearing condition. Condition: To address the above impact, the following management measure will be required as a condition on the clearing permit: • a staged clearing condition to minimise erosion and therefore reduce sedimentation.	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 no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact any vegetation growing within association with a watercourse or wetland.	Not likely to be 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 mapped soils of the application area are moderately susceptible to water erosion if perennial shrub cover is substantially reduced or the soil surface is disturbed (DPIRD, 2025; Waddell & Galloway, 2023). Noting the extent of the application area, the size of the proposed clearing area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation. However, any potential impacts from water erosion can be managed with a staged clearing condition. Condition: To address the above impact, the following management measure will be required as a condition on the clearing permit: • a staged clearing condition to minimise erosion.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: **Surface Water** There are no Public Drinking Water Source Areas (PDWSAs) within or in close proximity to the application area (GIS Database). There are no watercourses or wetlands within the application area (GIS Database). Lake Lefroy is located approximately 2.2 kilometres west of the application area (GIS Database). As there are no watercourses located within the application area, the water quality of Lake Lefroy is unlikely to be impacted by the proposed clearing (GIS Database). However, any potential impacts from sedimentation can be managed with a staged clearing condition. **Underground water** The average annual rainfall at the nearest weather station, Kambalda West, is approximately 287 millimetres (BoM, 2025). Average annual evaporation is between 2,000 and 2,400 millimetres per year, exceeding rainfall (BoM, 2006). As evaporation rates exceed rainfall, groundwater recharge is likely to be minimal. Therefore, the proposed clearing is unlikely to result in the deterioration of groundwater quality. Condition: To address the above impact, the following management measure will be required as a condition on the clearing permit: • a staged clearing condition to minimise erosion and therefore reduce sedimentation.	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 average annual rainfall at the nearest weather station, Kambalda West, is approximately 287 millimetres (BoM, 2025). Average annual evaporation is between 2,000 and 2,400 millimetres per year, exceeding rainfall (BoM, 2006). Rainfall data indicates that rainfall is spread throughout the year and rainfall events are unlikely to result in localised flooding (Botanica, 2024; Talis, 2025b). The scale of the clearing proposed and the topographic contours in the surrounding area mean the proposed clearing is unlikely to contribute to increased incidence or intensity of flooding (Talis, 2025b; GIS Database).	Not likely to be at variance	No

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

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.

Condition	Description
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix F. Botanica (2024) vegetation associations

Table adapted from Botanica (2024):

Vegetation code	Major vegetation group	Vegetation type	Landform	Representative photograph
CLP-EW1	*Eucalyptus* open woodland	*Eucalyptus salubris* open woodland over *Eremophila scoparia, Scaevola spinescens, Senna artemisioides* subsp. *filifolia* mid open shrubland over *Atriplex vesicaria, Ptilotus obovatus, Olearia muelleri* low sparse shrubland	Clay-loam plain	
CLP-EW2	*Eucalyptus* woodland	*Eucalyptus salmonophloia* woodland over *Senna artemisioides* subsp. *filifolia* mid sparse shrubland over *Atriplex vesicaria, A. nummularia, Sclerolaena diacantha* low sparse shrubland	Clay-loam plain	
RH-CW1	*Casuarina* low open woodland	*Casuarina pauper, Santalum acuminatum* low open woodland over *Alyxia buxifolia, Senna artemisioides* subsp. *filifolia, Scaevola spinescens* shrubland over *Westringia rigida, Eremophila glabra, Olearia muelleri* low open shrubland	Rocky hillslope	

RH-AS1	*Acacia* tall open woodland	*Acacia collegialis* tall open shrubland over *Scaevola spinescens, Dodonaea lobulata, Eremophila clarkei* mid open shrubland over *Cheilanthes sieberi, Leichhardtia australis* low sparse forbland	Rocky hillslope	
Cleared areas	N/A	N/A	N/A	N/A

Appendix G. Sources of information

G.1. GIS datasets

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

- Cadastre (Polygon) (LGATE-217)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- EPA Referred Schemes Pending (DWER-121)
- EPA Referred Significant Proposals (DWER-120)
- EPA Referred Significant Proposals Pending (DWER-103)
- Geographic Names (GEONOMA) (LGATE-013)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Medium Scale Topo Contour (Line) (LGATE-015)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- Regional Parks (DBCA-026)
- Reserves (LGATE-227)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Rivers (DWER-036)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Townsites (LGATE-248)
- WA Now Aerial Imagery

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)

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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.