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:	9070/3
Permit type:	Purpose permit
Applicant name:	Big Bell Gold Operations Pty Ltd
Application received:	5 May 2025
Application area:	1,581.75 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical removal
Tenure:	General Purpose Lease 51/9 Mining Leases 51/6, 51/12, 51/31, 51/33, 51/53, 51/62, 51/75, 51/96, 51/203, 51/320, 51/321, 51/334, 51/374, 51/486, 51/496, 51/524, 51/568, 51/569, 51/572, 51/575, 51/581, 51/793, 51/794, 51/795, 51/819 and 51/820 Miscellaneous Licences 51/18, 51/33 and 51/34
Location (LGA area):	Shire of Meekatharra
Colloquial name:	Nannine Project

1.2. Description of clearing activities

Clearing permit CPS 9070/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Mines, Petroleum and Exploration) on 3 December 2020 and was valid from 26 December 2020 to 25 December 2025 (DMIRS, 2020; GoWA, 2020). The permit authorised the clearing of up to 1,581.75 hectares of native vegetation within a boundary of approximately 1,616 hectares, for the purpose of mineral production and associated activities (DMIRS, 2020).

CPS 9070/2 was granted on 30 April 2021, amending the permit to increase the permit boundary by approximately 75.8 hectares, to establish a haul road to improve access to the Nannine Mining Area (DMIRS, 2021). There were no changes to the amount of approved clearing or permit duration (DMIRS, 2021).

On 5 May 2025, the permit holder applied to amend CPS 9070/2 to extend the permit duration by five years (BBGO, 2025). 12.25 hectares of native vegetation has been cleared under the permit, meaning there is a balance of 1,569.50 hectares remaining (BBGO, 2024; 2025).

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	23 December 2025
Decision area:	1,581.75 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Mines, Petroleum and Exploration (DMPE) advertised the application for a public comment for a period of 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix B), relevant datasets (**Error! Reference source not found.**), supporting information provided by the applicant (Appendix A) including the results of fauna, flora and vegetation surveys (Appendix E; Appendix F), the clearing principles set out in Schedule 5 of the EP Act (Appendix C), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.2.3).

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 clearing of priority flora species, *Tecticornia cymbiformis*;

- the clearing of two novel (undescribed) species, *Tecticornia* sp. nov and *Eremophila* sp. nov;
- the loss of native vegetation that is potential breeding habitat habitat for waterbirds;
- the loss of native vegetation that is habitat for the west coast mulga slider;
- increased risk of fauna injury or mortality through mechanical clearing;
- the clearing of native vegetation that may represent the Austin Land System PEC;
- impacts to watercourses and waterbodies;
- potential land degradation in the form of wind and water erosion; and
- potential increase in sedimentation of local waterbodies.

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;
- restricted clearing (must not clear more than 8.5 hectares within *Tecticornia* vegetation types);
- flora management (avoid known occurrences of *Tecticornia* sp. nov and *Eremophila* sp. nov with a buffer of ten metres);
- restricted clearing (shall not clear within dunefield habitat and must not clear more than 35 hectares within the mapped extent of the Austin Land System PEC);
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- avoid the clearing of riparian vegetation and ensure surface water flows are maintained; and
- commence construction no later than six months after undertaking clearing to reduce the risk of erosion.

The assessment has not changed since the assessment for CPS 9070/2, except in the case of principles (a), (b) and (i). These changes are discussed further in Section 3.2 and Appendix C.

The Delegated Officer determined that the proposed extension of duration is not likely to lead to an unacceptable risk to environmental values.

1.5. Site map

Maps of proposed clearing area are provided in Figures 1, 2 and 3, below.

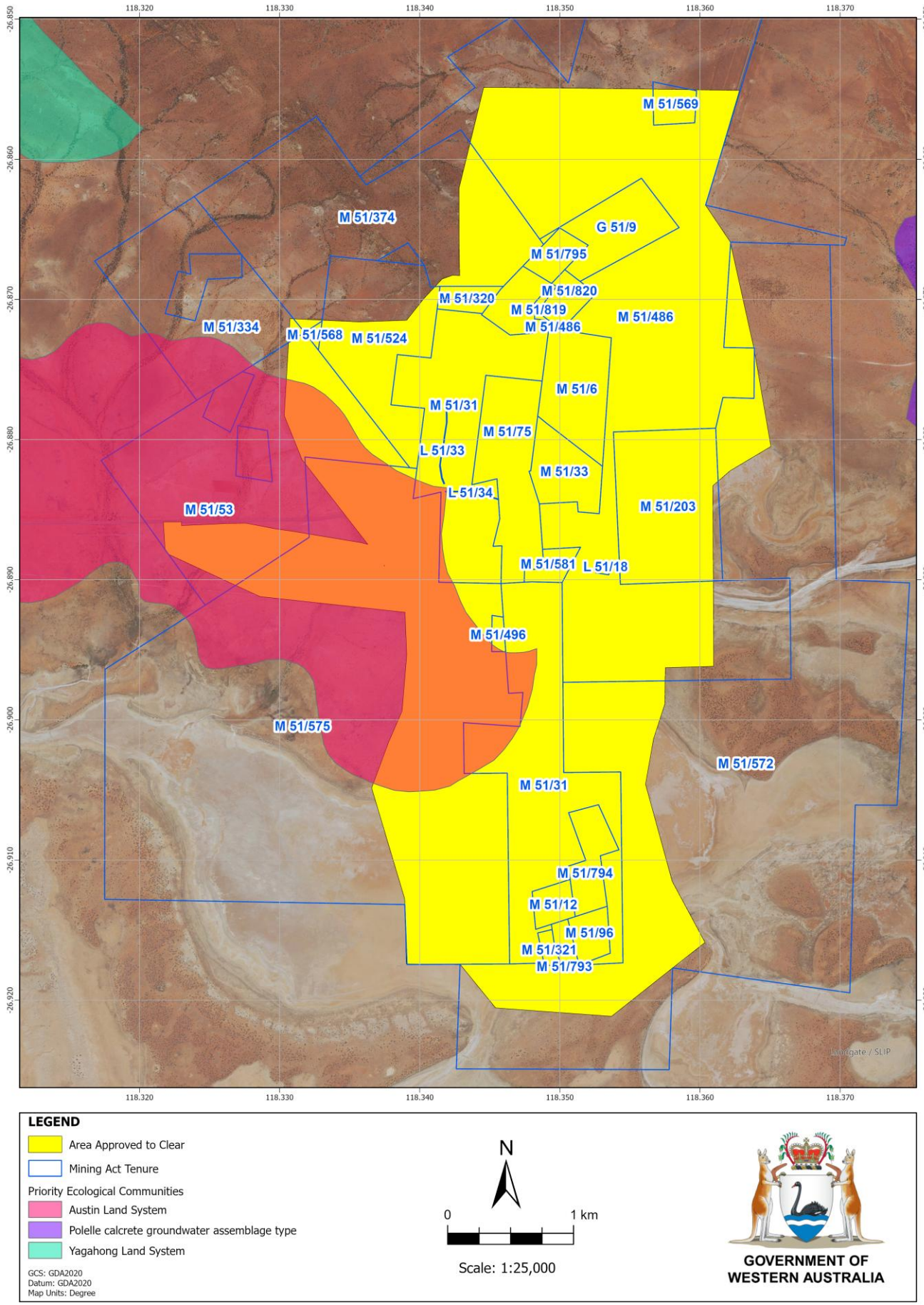

Figure 1. Map of the application area. The yellow area indicates the area within which conditional authorised clearing can occur under the granted clearing permit. Priority Ecological Communities (PECs) are shown in pink (Austin Land System PEC), purple (Polelle Calcrete PEC) and teal (Yagahong Land System PEC).

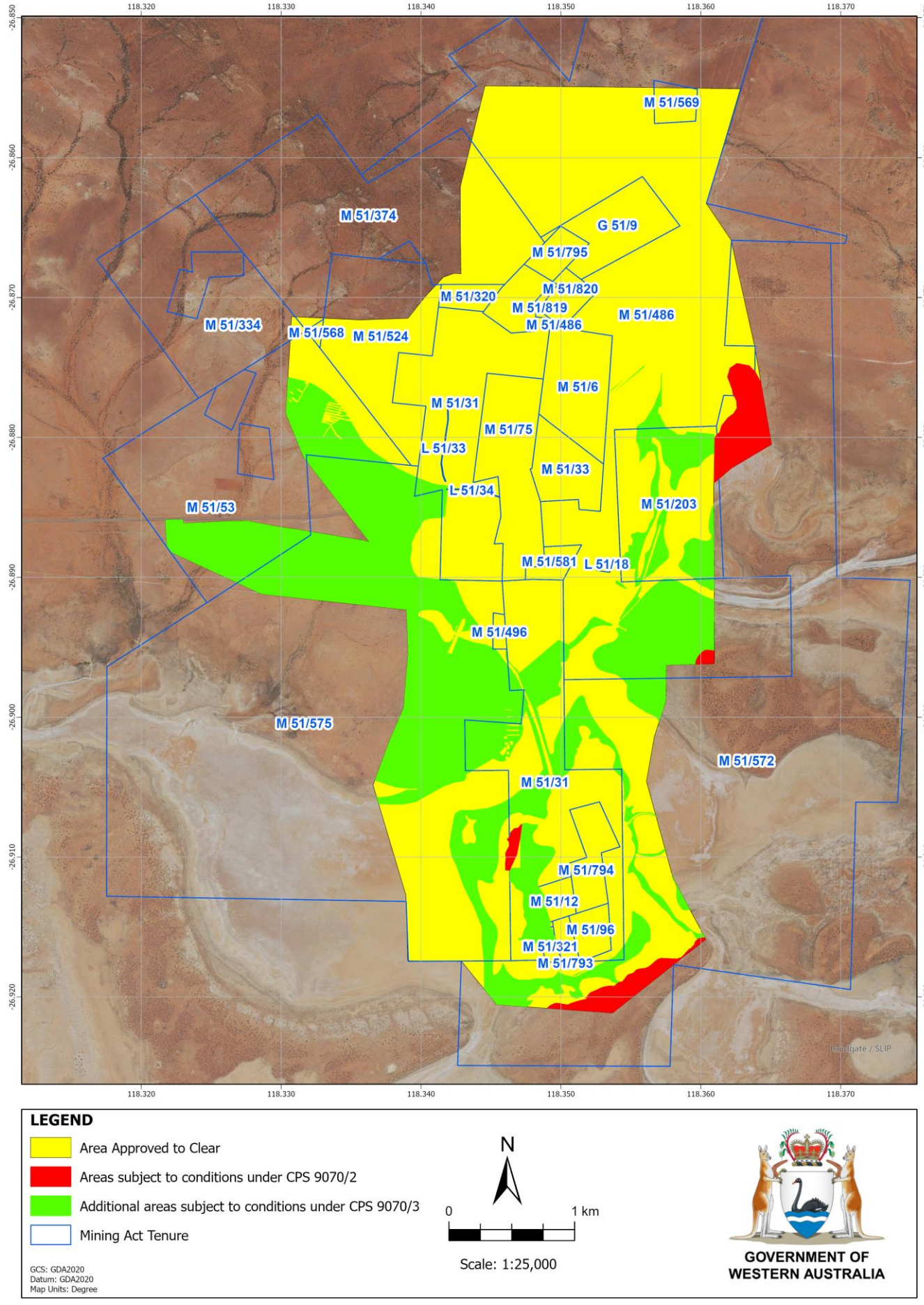

Figure 2. Map of the application area. The yellow, red and green areas indicate the area within which conditional authorised clearing can occur under the granted clearing permit. The red areas indicate areas which were subject to restricted clearing conditions under CPS 9070/2. Green areas represent areas which have been added to restricted clearing conditions under CPS 9070/3.

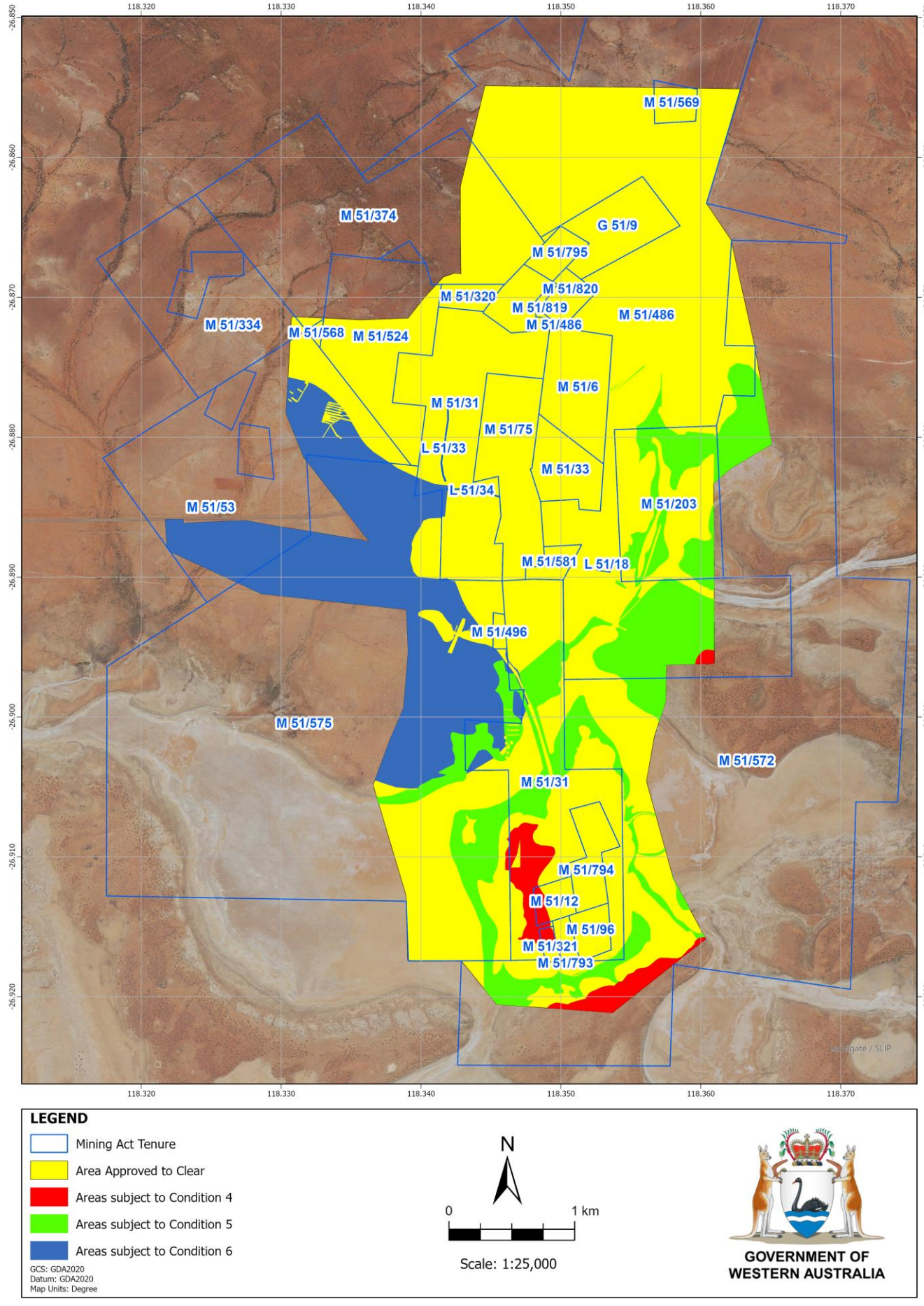

Figure 2. Map of the application area. The yellow, green and blue areas indicates the area within which conditional authorised clearing can occur under the granted clearing permit. No clearing can be conducted in the area shaded red, according to Condition 4 of CPS 9070/3. The area shaded green is subject to restricted clearing under Condition 5, The area shaded blue is subject to restricted clearing under Condition 6.

2. Legislative context

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

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

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

Other legislation of relevance for this assessment include:

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

Relevant agreements (treaties) considered during the assessment include:

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

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Guidance for the Assessment of Environmental Factors – *Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia* (EPA, 2004a)
- Guidance for the Assessment of Environmental Factors – *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia* (EPA, 2004b)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016b)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016a)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

No avoidance or mitigation measures were provided with this application (BBGO, 2025).

After discussion with DMPE, the applicant agreed to reducing the area of clearing within *Tecticornia* vegetation and within the mapped extent of the Austin Land System PEC (Westgold, 2025b).

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

3.2. Assessment of impacts on environmental values

The assessment has not changed since the assessment for CPS 9070/2, except in the case of principles (a), (b) and (i). Upon further review, the potential impacts to flora, fauna and ecological communities puts the application at variance to principle (a). Upon further review, the application area represents critical habitat for conservation significant fauna, which is considered under principle (b). Upon further review, the delegated officer determined the proposed clearing may be at variance to principle (i), given the susceptibility of soils within the application area to erosion could lead to siltation of watercourses within the application area.

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

Assessment

Species recorded or potentially recorded

Tecticornia cymbiformis
Tecticornia cymbiformis, Priority 3, inhabits saline soils along the edge of creeklines (WAH, 1998-). It was recorded in one location during the survey by MWH (2017). It was recorded within a *Tecticornia* mosaic vegetation type (MWH, 2017). It is considered that this species is likely to occur elsewhere within the application area, and Lake Annean more broadly, as *Tecticornia* species can be difficult to identify in situ (MWH, 2015). As this species is known from 16 Western Australian Herbarium (1998-) records, including seven records from Lake Annean and surrounds, the species is considered locally common (Spectrum, 2020). Potential impacts to this species can be managed by reducing clearing within *Tecticornia* vegetation types.

Dodonaea amplisemina
Dodonaea amplisemina, Priority 4, inhabits red-brown sandy clay on rocky hills, with a variety of rock types (WAH, 1998-). *Dodonaea amplisemina* was potentially recorded in the survey by MWH (2017), but the species was unable to be confirmed, due to the specimen being sterile. *Dodonaea amplisemina* is known from 40 Western Australian Herbarium (1998-) records, including multiple records within the conservation estate, from the Murchison, Avon Wheatbelt, Gascoyne and Yalgoo bioregions. As *Dodonaea amplisemina* is widespread and well represented, the proposed clearing is unlikely to be significant to the conservation of this species, if it were to occur within the application area.

Novel species
Two novel (undescribed) species were recorded within the application area being *Tecticornia* sp. nov and *Eremophila* sp. nov.

Tecticornia sp. nov has been recorded in three locations in the surveys by MWH (2017) and Spectrum Ecology (2020), all within *Tecticornia* vegetation types. Potential impacts to this species as a result of the proposed clearing may be minimised by avoiding known locations of this species with a buffer of ten metres, and by reducing clearing within *Tecticornia* vegetation types.

Eremophila sp. nov was recorded in one location in the survey by MWH (2017). Potential impacts to this species as a result of the proposed clearing may be minimised by avoiding known locations of this species with a buffer of ten metres.

Range extensions
Hakea leucoptera subsp. *sericipes* inhabits areas with stony sandy loam soils (WAH, 1998-). This taxon was recorded in the survey by Spectrum Ecology (2020) as a westerly range extension. This species is widespread, being known from several bioregions, including an occurrence within the Yalgoo bioregion, to the southwest of the application area (Spectrum, 2020; WAH, 1998-). This species is not considered to be locally or regionally significant, and is not of conservation concern (Spectrum, 2020; WAH, 1998-). Therefore, the proposed clearing is unlikely to significantly impact this species.

Rhagodia drummondii inhabits sandy clay, sand or clay on salt lakes or saline flats (WAH, 1998-). This taxon was recorded in the survey by Spectrum Ecology (2020) as a northerly range extension. It was also recorded in the surveys by MWH (2017) and Western Ecological (2021). As the species is common, and known from multiple bioregions, it is not considered to be locally or regionally significant, and is not of conservation concern (Spectrum, 2020; WAH, 1998-). Therefore, the proposed clearing is unlikely to significantly impact this species.

Acacia sclerosperma* subsp. *glaucescens
Acacia sclerosperma subsp. *glaucescens*, Priority 3, inhabits sand, sandy loam or stony soils (WAH, 1998-). There is a Western Australian Herbarium (1998-) record of this taxon within the application area. However, this species was searched for in the surveys by Spectrum Ecology (2020), MWH (2015) and Western Ecological (2021). This species is readily detectable in its vegetative form, so should have been identifiable in these surveys (MWH, 2015). The Western Australian Herbarium (1998-) record of this taxon within the application area was recorded in 1955 and is the only record of this species in the Murchison bioregion, with all other records occurring in the Gascoyne bioregion (Spectrum, 2020). As this species was searched for in surveys, it is unlikely to occur and is therefore unlikely to be impacted by the proposed clearing. The record within the application area may be an anomalous specimen or a misidentification (Spectrum, 2020).

Species likely to occur

Ptilotus lazaridis
Ptilotus lazaridis, Priority 3, inhabits clay loam soils on floodplains (WAH, 1998-). *Ptilotus lazaridis* was considered likely to occur within the application area, as suitable habitat occurs and it has been recorded within six kilometres of the application area (MWH, 2015; GIS Database). *Ptilotus lazaridis* flowers between July and October, and the species is readily identifiable during this period (MWH, 2015; NVS, 2018; WAH, 1998-). Only the survey by MWH (2015) was conducted during the correct timing for the identification of this species. As the MWH (2015) did not include the entire application area, it is considered that *Ptilotus lazaridis* could occur within the application area undetected. Most records of this species have come from the Mileura or Belele Land Systems, which are described as calcreted river plains and hardpan wash plains with calcrete platforms (DPIRD, 2025). Given these landforms do not occur within the application area, the likelihood of its occurrence is lowered (DPIRD, 2025; GIS Database). As the preferred habitat of *Ptilotus lazaridis* does not occur within the application area, the potential impacts to this species are unlikely to be significant.

Acacia speckii
Acacia speckii, Priority 4, inhabits rocky soils over granite, basalt or dolerite on rocky hills or rises (WAH, 1998-). *Acacia speckii* is known to occur on the stony plains adjacent to Lake Annean, and is therefore considered likely to occur (MWH, 2015). This species is readily detectable in its vegetative form, so should have been identifiable in the surveys of the application area (MWH, 2015). This lowers the likelihood of the species occurring undetected within the application area. Additionally, *Acacia speckii* is known from 40 Western Australian Herbarium (1998-) records, including multiple records within the conservation estate, from the Murchison, Gascoyne and Yalgoo bioregions. As *Acacia speckii* is widespread and well represented, the proposed clearing is unlikely to be significant to the conservation of this species, if it were to occur within the application area.

***Eragrostis* sp. Erect spikelets (P.K. Latz 2122)**
Eragrostis sp. Erect spikelets, Priority 3, inhabits semi-saline creeks, calcrete plains or platforms and salt lakes (WAH, 1998-). There are six Western Australian Herbarium (1998-) records of *Eragrostis* sp. Erect spikelets, from four bioregions including the Murchison bioregion. This species is a perennial and can flower year-round, meaning it would have been identifiable at the time of survey (NT Government, 2013; WAH, 1998-). This reduces the likelihood of occurrence. Additionally, this species is more commonly recorded in the Northern Territory and arid South Australia (ALA, n.d.b; BBGSH, 2025; NT Government, 2013). It is known from 77 Northern Territory Herbarium records, including several within the conservation estate (NT Government, 2013). As this species is widely distributed, well recorded, is well represented within the conservation estate, and the application area would not constitute a range extension if the species were to occur, the species is unlikely to be significantly impacted by the proposed clearing.

Hemigenia virescens
Hemigenia virescens, Priority 3, inhabits stony clay-loam soils on gravelly ironstone hills (WAH, 1998-). As this habitat occurs within the application area and there are *Hemigenia virescens* records within ten kilometres, it is considered likely to occur (MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; WAH, 1998-; Western Ecological, 2021; GIS Database). *Hemigenia virescens* is known from 11 Western Australian Herbarium (1998-) records across two Interim Biogeographic Regionalisation for Australia (IBRA) bioregions, of which one occurs within the conservation estate. As this species is not geographically restricted and is known within the conservation estate, the proposed clearing is not likely to have significant impact on the conservation of the species (WAH, 1998-).

Calytrix verruculosa
Calytrix verruculosa, Priority 3, inhabits sandy clay (WAH, 1998-). As suitable habitat occurs and it has been recorded within ten kilometres it was considered likely to occur within the application area (MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; Western Ecological, 2021). *Calytrix verruculosa* is known only from the Murchison bioregion, where it is known from 14 Western Australian Herbarium (1998-) records. Additionally, it has not been recorded within the conservation estate (WAH, 1998-). As *Calytrix verruculosa* is uncommon and regionally restricted, an occurrence within the application area would be of high local and regional significance (Spectrum, 2020; WAH, 1998-). However, as this is a perennial shrub, and no other members of the *Calytrix* genus were identified in the surveys, it is unlikely that it occurs undetected within the application area, despite surveys being undertaken outside of the flowering period for this species (MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; WAH, 1998-; Western Ecological, 2021). As the revised likelihood of occurrence is unlikely, this species is unlikely to be impacted by the proposed clearing.

Conclusion

Tecticornia cymbiformis may be impacted by the proposed clearing through the loss of suitable habitat. Potential impacts to this species can be managed by reducing clearing within *Tecticornia* vegetation types.

Tecticornia sp. nov may be impacted by the proposed clearing through direct impacts and loss of suitable habitat. Potential impacts to this species can be managed by avoiding known locations of this species with a buffer of ten metres, and by reducing clearing within *Tecticornia* vegetation types.

Eremophila sp. nov may be directly impacted by the proposed clearing. Potential impacts to this species can be managed by avoiding known locations of this species with a buffer of ten metres.

Dodonaea amplisemina, *Hakea leucoptera* subsp. *sericipes*, *Rhagodia drummondii*, *Acacia sclerosperma* subsp. *glaucescens*, *Ptilotus lazaridis, Acacia speckii*, *Eragrostis* sp. Erect spikelets, *Hemigenia virescens* and *Calytrix verruculosa* are unlikely to be significantly impacted by the proposed clearing.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:
- restricted clearing (must not clear more than 8.5 hectares within *Tecticornia* vegetation types); and
- flora management (avoid known occurrences of *Tecticornia* sp. nov and *Eremophila* sp. nov with a buffer of ten metres);

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

Assessment

Waterbirds
The following conservation significant species inhabit inland salt lakes and have been recorded within 50 kilometres of the application area (Birdlife Australia, 2025b; Commonwealth of Australia, 2008; 2020; GIS Database):
- *Charadrius ruficapillus* (red-capped plover), Marine;
- *Pelecanus conspicillatus* (Australian Pelican), Marine;
- *Gelochelidon nilotica* (gull-billed tern), Migratory;
- *Calidris acuminata* (sharp-tailed sandpiper), Migratory;
- *Calidris ferruginea* (curlew sandpiper), Migratory and Critically Endangered;
- *Tringa nebularia* (common greenshank), Migratory and Endangered;
- *Calidris melanotos* (pectoral sandpiper), Migratory; and
- *Tringa glareola* (wood sandpiper), Migratory

Lake Annean supports thousands of waterbirds when inundated (DCCEEW, 1995; MWH, 2017). As the lake playa contains no vegetation there will be no clearing in this habitat (Spectrum, 2020; GIS Database). However, samphire vegetation and islets that remain above the high-water mark support gull-billed tern and potentially red-capped plover breeding (DCCEEW, 1995; MWH, 2017).

Approximately 245 hectares of *Tecticornia* vegetation occurs within the application area, which may support waterbird breeding (MWH, 2015; 2017; Spectrum, 2020). Of this, approximately 50 hectares (20 percent) has been disturbed (Westgold, 2025a; Appendix A). Further clearing of the *Tecticornia* vegetation will be limited to 8.5 hectares, therefore limiting total impact to approximately 24 percent of the habitat area within the application area (Westgold, 2025b; Appendix A). As this habitat occurs around Lake Annean, outside of the application area, the impact to 24 percent of the habitat area within the application area is unlikely to be significant for waterbird conservation.

Other birds
Anthus novaeseelandiae (Australian pipit), Marine, inhabits a range of habitats including saltmarshes and open dry shrublands (Australian Museum, 2022). It was recorded within the application area in the stony plains habitat (MWH, 2015). As suitable habitat for this species is widely available, the surrounding areas remain uncleared and the species is widespread and relatively common, the proposed clearing is unlikely to significantly impact this species (ALA, n.d.a; Australian Museum, 2022; Birdlife Australia, 2025a; n.d.; Menkhorst et al., 2019; Simpson & Day, 2010).

Hirundo neoxena (welcome swallow), Marine, and *Falco peregrinus* (peregrine falcon), Other Specially Protected, occur over most habitats (Australian Museum, 2019; Birdlife Australia, 2025c). As habitat for these species is not limited, and these species are highly mobile and widely ranging, they are unlikely to be impacted by the proposed clearing (Australian Museum, 2019; Birdlife Australia, 2025c).

Apus pacificus (fork-tailed swift), Migratory, is an aerial species (Commonwealth of Australia, 2008). It may occur in the airspace above the application area. The fork-tailed swift is unlikely to impacted by the proposed clearing this species, as it does not utilise vegetation as habitat.

Falco hypoleucos (grey falcon), Vulnerable, has a wide distribution across much of arid Australia, occurring mainly on lightly wooded plains and along watercourses (Garnett & Crowley, 2000). Critical habitat consists of major drainage lines with suitably sized *Eucalypts* for breeding (Garnett & Crowley, 2000). Critical habitat does not occur within the application area, but the grey falcon may occur within the application when foraging (MWH, 2015; 2017; Spectrum, 2020). As suitable foraging habitat is widespread, and the grey falcon is widespread and mobile, the proposed clearing is unlikely to significantly impact the grey falcon (Garnett & Crowley, 2000).

West Coast mulga slider
Lerista eupoda (West Coast mulga slider), Priority 1, inhabits open mulga woodland on red loams and sandy loams, and has been frequently caught in leaf litter under mulga (Cogger, 2018; Ecologia, 2009; IUCN, 2017). The species is known from 28 records and is restricted to an area with a diameter of approximately 100 kilometres, south of Meekatharra, within the Murchison bioregion (ALA, n.d.c; IUCN, 2017; GIS Database). Within the application area, the West Coast mulga slider (also known as the Meekatharra slider) has been recorded in two locations within the dunefield habitat, described in Appendix F (MWH, 2015). Therefore, the dunefield habitat is of high significance, and impacts to this habitat can be managed through a restricted clearing condition (DMIRS, 2020; MWH, 2015).

Long-tailed dunnart
Sminthopsis longicaudata (long-tailed dunnart), Priority 4, occurs on rocky outcrops of central Western Australia (IUCN, 2025). The ironstone hills and quartz outcrop habitats located within the application area are likely to be suitable for the long-tailed dunnart, with stony plains providing marginal habitat (MWH, 2015; 2017; Spectrum, 2020).

Long-tailed dunnarts have high mobility and transiency, permitting them to opportunistically invade new habitats (Friend et al., 1997). As the suitable habitat is likely to occur in the local area, outside of the application area, and the long-tailed dunnart will be able to move to new habitat, the proposed clearing of habitat is unlikely to be significant to the conservation of this species (GIS Database). However, mechanical clearing poses the risk of injury or mortality to long-tailed dunnart individuals.

***Branchinella simplex* (a fairy shrimp)**
Branchinella simplex (fairy shrimp), Priority 1, inhabits saline lakes in inland Western Australia (Lawrie et al., 2021; Timms, 2008; 2009). A *Branchinella simplex* population can develop quickly in temporary waters following inundation, from resting eggs (La Trobe University, n.d.). Lake Annean provides suitable habitat for this species within the application area (MWH, 2017; Spectrum, 2020; GIS Database). As the mapped extent of Lake Annean is mostly bare (without vegetation cover) the proposed clearing is unlikely to have a significant impact on habitat for *Branchinella simplex* (Spectrum, 2020; GIS Database).

Conclusion

Waterbirds
As the applicant has committed to reducing impacts to waterbird breeding habitat to a further 8.5 hectares, the impact of habitat clearing is unlikely to be significant to waterbird conservation. This commitment will be conditioned on the permit.

The applicant may have notification responsibilities under the EPBC Act for impacts to waterbirds (species listed above) 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.

West Coast mulga slider
As the West Coast mulga slider is regionally restricted and has been recorded within the dunefield habitat of the application area, this habitat may be critical for the conservation of the West Coast mulga slider. Therefore, impacts to this habitat are to be managed with a restricted clearing condition.

Long-tailed dunnart
The proposed clearing is unlikely to significantly impact long-tailed dunnart via the removal of suitable habitat, however, mechanical clearing poses the risk of injury or mortality to long-tailed dunnart individuals, if they were to occur within the application area. Therefore, a condition to undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity will be imposed on the clearing permit.

Other birds and *Branchinella simplex* (a fairy shrimp)
The Australian pipit, welcome swallow, peregrine falcon, fork-tailed swift, grey falcon and *Branchinella simplex* are unlikely to be significantly impacted by the proposed clearing. Therefore, no fauna management conditions are required for these species.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:
- restricted clearing (must not clear more than 8.5 hectares within *Tecticornia* vegetation types);
- restricted clearing (shall not clear within dunefield habitat); and
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

3.2.3. Biological values (ecological communities) - Clearing principle (a)

Assessment

Austin LS
Approximately 277 hectares of the application area is mapped within the Austin Land System (Priority 3) Priority Ecological Community (PEC) (shown in Figure 1 of Section 1.5) (GIS Database). The Austin Land System PEC requires conservation of its saline stony plains with low rises and drainage foci supporting low halophytic shrublands with scattered mulga (DBCA, 2023c).

Of the 277 hectares of this PEC within the application area, approximately 22 hectares has been previously disturbed (Westgold, 2025a; Appendix A).

The applicant has committed to limit clearing within the mapped extent of this PEC to 35 hectares (Westgold, 2025b; Appendix A). The Lake Austin Land System PEC is mapped over approximately 22,590 hectares (GIS Database). The clearing of up to 35 hectares within the mapped extent of this PEC will result in the removal of 0.3 percent of the total Austin Land System PEC mapped area, and 5.7 percent of the extent of the intercepted occurrence, which is not considered a significant impact. However, any future expansions of this project need to consider cumulative impacts to the PEC.

Polelle Calcrete and Nowthanna Calcrete
As these communities are subterranean groundwater assemblages, these communities are unlikely to be impacted through the clearing of native vegetation, as the proposed clearing is not expected to have any impact on the quality of groundwater in the local area (DBCA, 2023c; DMIRS, 2020; Appendix C).

Yagahong LS
The Yagahong Land System (Priority 3) PEC has a mapped occurrence 1.8 kilometres west of the application area (shown in Figure 1 of Section 1.5) (GIS Database). This PEC is characterised as rough greenstone ridges, hills and cobble-strewn footslopes supporting mulga shrublands (DBCA, 2023c). This PEC is considered possibly occurring, as parts of the application area match this description (DPIRD, 2025; MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; Western Ecological, 2021). The Yagahong Land System PEC is defined as Priority 3(iii) (DBCA, 2023c). This status is applied to communities that have large or widespread occurrences, but where these occurrences are under threat through processes including clearing and over-grazing (DBCA, 2023b). As the Yagahong Land System PEC is known from 18 occurrences, with a total known area of approximately 16,545 hectares, and none of these occur within the application area, the proposed clearing is unlikely to result in a significant impact to the Yagahong Land System PEC (GIS Database).

Conclusion

As the application area occurs within the Austin Land System PEC, direct impacts of clearing within this PEC can be limited by implementing a restricted clearing condition.

The Polelle Calcrete, Nowthanna Calcrete and Yagahong Land System PECs are unlikely to be significantly impacted by the proposed clearing.

Conditions

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

- restricted clearing (must not clear more than 35 hectares within the mapped extent of the Austin Land System PEC);

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 25 July 2025 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There are two native title claims (WCD2017/007 - Wajarri Yamatji Part A and WCD2018/002 - Wajarri Yamatji Part B) over the area under application (DPLH, 2025). These claims have been registered with the determined by the Federal Court on behalf of the claimant groups. 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.

It is noted that the proposed clearing may impact on waterbirds (species listed in Section 3.2.2) 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 flora, vegetation and fauna survey by Western Ecological (2021) was provided following submission.	This survey was used to inform the site characteristics, and was used during the assessment of principles (a) and (b).
The applicant provided shapefiles of the existing and proposed disturbance envelopes (Westgold, 2025a).	This information was used in the assessment of the impacts of clearing to flora, fauna and ecological communities (Sections 3.2.1, 3.2.2 and 3.2.3).
Correspondence between DMPE and the applicant to discuss avoidance and minimisation measures (Westgold, 2025b).	The applicant agreed to reduce the clearing impact within *Tecticornia* vegetation and the Austin Land System PEC (see Section 3.1). This information was used in the assessment of the impacts of clearing to flora, fauna and ecological communities (Sections 3.2.1, 3.2.2 and 3.2.3).

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The application area is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia (GIS Database). It is located within the Western Murchison subregion of the Murchison bioregion (GIS Database). The application area is within the Annean Pastoral Lease (GIS Database). Approximately 99% of the local area (50 kilometre radius from the application area) remains uncleared (GIS Database).
Ecological linkage	The application area is not considered a significant ecological linkage. The vegetation immediately surrounding the application area and the majority of the region remains uncleared (GIS Database).
Conservation areas	The application area is not located within any DBCA legislated conservation areas (GIS Database). The nearest legislated conservation area is the Lakeside Conservation Park, approximately 85 kilometres southwest of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 18: Low woodland, open low woodland or sparse woodland (mulga and associated species); 39: Scrub, open scrub or sparse scrub (wattle, teatree and other species); 125: Salt lake, lagoon, clay pan; and 1128: Succulent steppe bluebush and saltbush / samphire (GIS Database). Several flora and vegetation surveys have been conducted within the application area between 2015 and 2020 (MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; Western Ecological, 2021). The vegetation associations recorded within the application area can be broadly described as (MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; Western Ecological, 2021): • *Acacia* shrublands; • *Hakea* open tall shrubland; • *Maireana* chenopod shrublands; • *Melaleuca* open tall shrublands; • *Salsola* low chenopod shrubland; • *Senna* plains vegetation; • *Tecticornia* vegetation; • bare lake areas; and • cleared areas. The full list and descriptions of vegetation associations is provided in Appendix E.
Vegetation condition	The vegetation surveys (MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; Western Ecological, 2021) indicate the vegetation within the proposed clearing area is in Excellent to Completely degraded (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 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);

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td></td><td>

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); and
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 D.
</td></tr>
<tr><td>Climate and landform</td><td>
The climate of the Murchison bioregion is described as arid, with the nearest weather station (Meekatharra) recording an average rainfall of approximately 233.1 millimetres per year (BoM, 2025; CALM, 2002).
The application area is mapped at elevations of 450-500 metres Australian height datum (GIS Database). Land system mapping broadly describes the application area plains with low hills and rises (DPIRD, 2025).
</td></tr>
<tr><td>Soil description</td><td>
The soils within the application area are mapped as the following land systems (DPIRD, 2025):
<table>
<tr><th>Land system</th><th>Description</th></tr>
<tr><td>Austin system (273Au)</td><td>Saline stony plains with low rises and drainage foci supporting low halophytic shrublands with scattered mulga and snakewood</td></tr>
<tr><td>Carnegie system (273Ca)</td><td>Salt lakes with fringing saline alluvial plains, kopi dunes and sandy banks, supporting halophytic shrublands and acacia tall shrublands</td></tr>
<tr><td>Carnegie Lake Bed subsystem (273CaLB)</td><td>Bare lake beds inundated for short periods after rain</td></tr>
<tr><td>Gabanintha system (272Ga)</td><td>Greenstone ridges, hills and footslopes supporting sparse acacia and other mainly non-halophytic shrublands</td></tr>
<tr><td>Wiluna system (272Wi)</td><td>Low greenstone hills with occasional lateritic breakaways and broad stony slopes, lower saline stony plains and broad drainage tracts; supporting sparse mulga and other acacia shrublands with patches of halophytic shrubs</td></tr>
<tr><td>Violet system (272Vi)</td><td>Gently undulating gravelly plains on greenstone, laterite and hardpan, with low stony rises and minor saline plains; supporting groved mulga and bowgada shrublands and occasionally chenopod shrublands</td></tr>
</table>
</td></tr>
<tr><td>Land degradation risk</td><td>
Within the Austin and Carnegie land systems, clearing of vegetation within drainage tracts can lead to increased erosion (Payne et al., 1998; Pringle, 1994). Clearing in the Carnegie land system also increases the likelihood of wind erosion (Pringle, 1994).
Narrow drainage tracts in the Wiluna land system are moderately susceptible to water erosion (Payne et al., 1998).
Within the Violet and Gabanintha land systems, abundant mantles provide effective protection against soil erosion over most of this land system, except where the soil surface has been disturbed. In such circumstances, the soil becomes moderately susceptible to water erosion. Narrow drainage tracts are mildly susceptible to water erosion (Mabbutt et al., 1963; Payne et al., 1998; Pringle, 1994).
</td></tr>
<tr><td>Waterbodies</td><td>
The desktop assessment and aerial imagery indicated that five minor, non-perennial watercourses transect the area proposed to be cleared, being Bubba Ngundi Creek and its tributaries (GIS Database).
The application area intercepts Lake Annean (Lake Nannine), which is an Environmentally Sensitive Area (ESA) and an ANCA (Australian Nature Conservation Agency) wetland listed under the Directory of Important Wetlands in Australia (Environment Australia, 2001; 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 Meekatharra Water Reserve located approximately 36 kilometres to the northeast of the application area (GIS Database).
The application area is located within the East Murchison Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914 (GIS Database).
</td></tr>
</table>

Characteristic	Details
	The groundwater salinity of the application area is mapped as being 3,000-7,000 total dissolved solids milligrams per litre, which is described as brackish water (NWGA, 2023; GIS Database).
Flora	There are records of 26 priority flora species within a 50 kilometre radius of the application area (GIS Database).
Ecological communities	No Threatened Ecological Communities (TECs) have been recorded within the application area (NVS, 2018; Spectrum, 2020; GIS Database). One TEC occurs in the Murchison bioregion, being the Depot Springs stygofauna community (DBCA, 2025). There are records of eleven priority ecological communities (PECs) (listed in Appendix B.5) within 50 kilometres of the application area (GIS Database). The Austin Land System PEC has a mapped occurrence within the application area (GIS Database). The Polelle Calcrete Priority 1 PEC and the Yagahong Land System Priority 3 PEC are located less than two kilometres from the application area (GIS Database).
Fauna	The desktop assessment identified 15 conservation significant fauna species with records within a 50 kilometre radius of the application area (GIS Database). Two species have been recorded within the application area, being the gull-billed tern (*Gelochelidon nilotica*) and the West Coast mulga slider (*Lerista eupoda*) (GIS Database). Additionally, four species listed under the EPBC Act as marine have been recorded within the application area (MWH, 2015).
Fauna habitat	Fauna habitat assessments were conducted within the application area by MWH (2015; 2017), Spectrum (2020) and Western Ecological (2021). The following eleven broad habitat types were identified within the application area (MWH, 2015; 2017; Spectrum, 2020; Western Ecological, 2021): • Chenopod shrubland; • Mulga woodland; • Dunefields (described in Appendix F); • Ironstone hills; • Lake playa; • Quartz outcrop; • Samphire; • Drainage areas; • Open plains; • Stony plain; and • Cleared areas

B.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre-European extent) (%)
IBRA Bioregion - Murchison	28,120,587	28,044,823	~99	293,505	1.04
Beard vegetation associations - State					
18	19,892,306	19,843,148	~99	1,317,179	6.62
39	6,613,418	424,642.41	~99	479,206	7.25
125	3,485,785	3,146,487	~90	265,740	7.62
1128	18,657.56	18,349.24	~98	-	-
Beard vegetation associations - Bioregion (Murchison)					
18	12,403,172	12,363,253	~99	45,094	0.36
39	1,148,400	1,138,064	~99	40,834	3.56
125	711,484	710,255	~99	51,223	7.20
1128	18,657.56	18,349.24	~98	-	-

B.3. Flora analysis table

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

The likelihood of occurrence for these species were determined by potentially suitable habitat within the application area, species distribution, biological survey information and known regional records (MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; WAH, 1998-; Western Ecological, 2021; GIS Database).

Species that have been recorded or potentially recorded within the application area, or that have a likelihood of occurrence of likely, are discussed in Section 3.2.1.

Species name	Conservation status	Suitable habitat occurs? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Acacia sclerosperma subsp. *glaucescens*	P3	Y	0	Recorded
Tecticornia cymbiformis	P3	Y	0	Recorded
Dodonaea amplisemina	P4	Y	0	Potentially recorded
Tecticornia sp. nov	Potentially undescribed species	Y	0	Recorded
Eremophila sp. nov	Potentially undescribed species	Y	0	Recorded
Hakea leucoptera subsp. *sericipes*	Range extension	Y	0	Recorded
Rhagodia drummondii	Range extension	Y	0	Recorded
Ptilotus lazaridis	P3	Y	<6	Likely
Eragrostis sp. Erect spikelets (P.K. Latz 2122)	P3	Y	<6	Likely
Acacia speckii	P4	Y	<10	Likely
Hemigenia virescens	P3	Y	<10	Likely
Calytrix verruculosa	P3	Y	<10	Unlikely – discussed in Section 3.2.1
Ptilotus luteolus	P3	Y	<20	Possible
Sida picklesiana	P3	Y	<20	Possible
Maireana prosthecochaeta	P3	Y	<20	Possible
Eremophila retropila	P1	Y	<25	Possible
Grevillea inconspicua	P4	Y	<25	Possible
Tribulus adelacanthus	P3	Y	<25	Possible
Eremophila fasciata	P3	Y	<25	Possible
Indigofera rotula	P3	Y	<30	Possible
Ptilotus beardii	P3	Y	<35	Possible
Menkea draboides	P3	Y	<35	Possible
Petrophile pauciflora	P3	Y	<40	Possible
Lepidium xylodes	P1	Y	<40	Possible
Beyeria lapidicola	P1	Y	<45	Possible
Stenanthemum mediale	P1	Y	<50	Possible
Verticordia jamiesonii	P3	Y	<50	Possible
Prostanthera petrophila	P3	N	<25	Unlikely
Euploca mitchellii	P1	N	<25	Unlikely
Drummondita miniata	P3	N	<30	Unlikely
Homalocalyx echinulatus	P3	N	<35	Unlikely

Species name	Conservation status	Suitable habitat occurs? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence

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

B.4. Fauna analysis table

The following conservation significant fauna species have been recorded within 50 kilometres of the application area (GIS Database).

The likelihood of occurrence for these species were determined by potentially suitable habitat within the application area, species distribution, biological survey information and known regional records (Australian Museum, 2019; 2022; Birdlife Australia, 2025b; 2025c; CALM, n.d.; Cogger, 2018; Commonwealth of Australia, 2008; 2020; DBCA, 2023a; Garnett & Crowley, 2000; MWH, 2015; 2017; Spectrum, 2020; Timms, 2008; TSSC, 2020; WAM, n.d.; Western Ecological, 2021; GIS Database).

Species that have been recorded within the application area, or that have a likelihood of occurrence of likely or possible, are discussed in Section 3.2.2.

Species name		Conservation status		Suitable habitat occurs? [Y/N]	Distance of closest record to application area (km)	Likelihood of occurrence
Common	Scientific	State	National			
Waterbirds						
Gull-billed tern	*Gelochelidon nilotica*	MI	MI	Y	0	Recorded
Red-capped plover	*Charadrius ruficapillus*	MA	MA	Y	0	Recorded
Australian pelican	*Pelecanus conspicillatus*	MA	MA	Y	0	Recorded
Sharp-tailed sandpiper*	*Calidris acuminata*	MI	MI	Y	7.6	Likely
Curlew sandpiper*	*Calidris ferruginea*	CR	CR & MI	Y	7.6	Likely
Common greenshank*	*Tringa nebularia*	MI	MI & EN	Y	7.6	Likely
Pectoral sandpiper*	*Calidris melanotos*	MI	MI	Y	9.3	Possible
Wood sandpiper*	*Tringa glareola*	MI	MI	Y	32.0	Likely
Other birds						
Australian pipit	*Anthus novaeseelandiae*	MA	MA	Y	0	Recorded
Welcome swallow	*Hirundo neoxena*	MA	MA	Y	0	Recorded
Peregrine falcon	*Falco peregrinus*	OS	-	Y	1.4	Possible
Fork-tailed swift*	*Apus pacificus*	MI	MI	Y	5.7	Possible
Grey falcon	*Falco hypoleucos*	VU	-	Y	17.0	Likely
Malleefowl	*Leipoa ocellata*	VU	VU	Y	31.9	Unlikely
Reptiles						
West Coast mulga slider	*Lerista eupoda*	P1	-	Y	0	Recorded
Mammals						
Long-tailed dunnart	*Antechinomys longicaudata*	P4	-	Y	23.6	Likely
Desert bettong	*Bettongia anhydra*	EX	EX	Y	7.9	Highly unlikely
Invertebrates						
A fairy shrimp (inland WA)	*Branchinella simplex*	P1	-	Y	4.3	Possible
Northern shield-backed trapdoor spider	*Idiosoma clypeatum*	P3	-	Y	42.0	Unlikely

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, MI: migratory, CD: conservation dependent, OS: other specially protected, P: priority, MA: marine, *: does not breed in Australia

B.5. Ecological community analysis table

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

The likelihood of occurrence for these communities were determined by potentially suitable habitat within the application area, community distribution, biological survey information and known regional records (DBCA, 2023c; MWH, 2015; 2017; NVS, 2018; Spectrum, 2020; Western Ecological, 2021; GIS Database).

Communities that have been recorded within the application area, or that have a likelihood of occurrence of possible, are discussed in Section 3.2.3.

Community name	Abbreviated community name	Conservation status	Description (DBCA, 2023c)	Distance of closest record to application area (km)	Likelihood of occurrence
Austin Land System	Austin LS	P3	Saline stony plains with low rises and drainage foci supporting low halophytic shrublands with scattered mulga; occurs mainly adjacent to lakes Austin and Annean below greenstone hill systems.	0	Recorded
Polelle calcrete groundwater assemblage type on Murchison palaeodrainage on Polelle Station	Polelle Calcrete	P1	Unique assemblages of invertebrates have been identified in the groundwater calcretes.	1.0	Likely
Yagahong Land System	Yagahong LS	P3	Rough greenstone ridges, hills and cobble-strewn footslopes supporting mulga shrublands.	1.8	Possible
Nowthanna Hill calcrete groundwater assemblage type on Murchison palaeodrainage on Yarrabubba Station	Nowthanna Calcrete	P1	Unique assemblages of invertebrates have been identified in the groundwater calcretes.	31.2	Possible
Trillbar Land System	Trillbar LS	P3	Gently sloping stony plains with low rises of metamorphic rocks and gilgaied drainage foci; supports more or less saline shrublands of snakewood, mulga, bluebush and samphire with patches of tussock grassland.	22.0	Unlikely
Yarrabubba west calcrete groundwater assemblage types on Murchison palaeodrainage on Yarrabubba Station	Yarrabubba West Calcrete	P1	Unique assemblages of invertebrates have been identified in the groundwater calcretes.	40.9	Unlikely
Weld Range vegetation complexes (banded ironstone formation)	Weld Range BIF	P1	All the vegetation units associated with the BIF and BIF colluvial flats and outwash geology of the Weld Range. Includes vegetation units identified on these geologies by Markey and Dillon (2008).	42.0	Unlikely
Belele calcrete groundwater assemblage type on Murchison palaeodrainage on Belele Station	Belele Calcrete	P1	Unique assemblages of invertebrates have been identified in the groundwater calcretes.	42.1	Unlikely
Hillview calcrete groundwater assemblage type on Murchison palaeodrainage on Hillview Station	Hillview Calcrete	P1	Unique assemblages of invertebrates have been identified in the groundwater calcretes.	44.4	Unlikely
Taincrow calcrete groundwater	Taincrow Calcrete	P1	Unique assemblages of invertebrates have been	46.7	Unlikely

Community name	Abbreviated community name	Conservation status	Description (DBCA, 2023c)	Distance of closest record to application area (km)	Likelihood of occurrence
assemblage type on Murchison palaeodrainage on Taincrow Station			identified in the groundwater calcretes.		
Yarrabubba east calcrete groundwater assemblage types on Murchison palaeodrainage on Yarrabubba Station	Yarrabubba East Calcrete	P1	Unique assemblages of invertebrates have been identified in the groundwater calcretes.	48.4	Unlikely

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

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared contains conservation significant flora and fauna, and a mapped occurrence of a Priority Ecological Community (PEC).	At variance (changed from CPS 9070/2)	Yes *Refer to Sections 3.2.1, 3.2.2 and 3.2.3, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The area proposed to be cleared contains breeding habitat for conservation significant waterbirds and critical habitat for the geographically restricted West Coast mulga slider.	At variance (changed from CPS 9070/2)	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: Given no threatened flora have been recorded within a 50 kilometre radius of the application area, the area proposed to be cleared is unlikely to contain flora species listed under the BC Act.	Not likely to be at variance (as per CPS 9070/2)	No
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: The vegetation surveys of the application area did not identify any vegetation communities considered to be a TEC within the application area (MWH, 2015, 2017; NVS, 2018; Spectrum, 2020; Western Ecological, 2021). Additionally, as the only TEC known from the Murchison bioregion, being the Depot Springs stygofauna community, is located approximately 200 kilometres from the application area, it is considered unlikely to occur (DBCA, 2025; GIS Database).	Not likely to be at variance (as per CPS 9070/2)	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99 percent of the pre-European vegetation still exists in the IBRA Murchison Bioregion (Government of Western Australia, 2019; Appendix B.2).	Not at variance (as per CPS 9070/2)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Over 90 percent of the pre-European extent of the Beard vegetation associations present within the application area remains uncleared at both the state and bioregional level (Government of Western Australia, 2019; GIS Database; Appendix B.2). The extent of the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001; Appendix B.2)		
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: Given the distance to the nearest conservation area (approximately 85 kilometres), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas (GIS Database).	Not likely to be at variance (as per CPS 9070/2)	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 the application area intercepts Lake Annean and Bubba Ngundi Creek and its tributaries, the proposed clearing will result in the clearing of vegetation growing in association with watercourses and wetlands (GIS Database). Condition: To address the above impact, the following management measures will be required as conditions on the clearing permit: • a watercourse management condition.	At variance (as per CPS 9070/2)	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 are susceptible to water erosion in drainage lines (DPIRD, 2025; Mabbutt et al., 1963; Payne et al., 1998; Pringle, 1994). Clearing in the Carnegie land system also increases the likelihood of wind erosion (Pringle, 1994). Noting the extent and location of the application area, the proposed clearing may have an appreciable impact on land degradation (GIS Database). Condition: To address the above impact, the following management measures will be required as conditions on the clearing permit: • a staged clearing condition to minimise erosion; and • a watercourse management condition.	May be at variance (as per CPS 9070/2)	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: **Surface water** Given the mapped soils of the application are susceptible to water erosion in drainage lines, and the application area intercepts Lake Annean and Bubba Ngundi Creek and its tributaries, the proposed clearing may result in increased sedimentation in these waterbodies (DPIRD, 2025; Mabbutt et al., 1963; Payne et al., 1998; Pringle, 1994; GIS Database). **Groundwater** The proposed clearing is not expected to have any impact on the quality of groundwater in the local area. Condition: To address the above impact, the following management measures will be required as conditions on the clearing permit: • a staged clearing condition to minimise erosion; and • a watercourse management condition.	May be at variance (changed from CPS 9070/2)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: With an average annual rainfall of 233.1 millimetres and an average annual evaporation rate of between 3,200 and 3,600 millimetres there is likely to be little surface flow during normal seasonal rains (BoM, 2006; 2025). Given the likelihood of little surface flow, the proposed clearing is not likely to cause or increase the incidence or intensity of flooding. The application area sits partially within Lake Annean, where temporary localised flooding may occur briefly following heavy rainfall events, with the whole lake filling from episodic flooding every five to ten years (DCCEEW, 1995; GIS Database). However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.	Not likely to be at variance (as per CPS 9070/2)	No

Appendix D. Vegetation condition rating scale

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

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E. Vegetation associations

Broad Floristic Formation	Vegetation association	Vegetation association code	Representative photograph	Source
Acacia scattered tall shrubland	Scattered tall shrubs of *Acacia pteraneura* and *Acacia tetragonophylla* over scattered mid shrubs of *Senna* sp. Meekatharra (E. Bailey 1-26) and *Senna artemisioides* subsp. *helmsii* over open low shrubland of *Maireana triptera, Eremophila* ? *jucunda* subsp. *jucunda* and *Ptilotus obovatus*	A1a		MWH, 2015

	over very open low tussock grassland of *Aristida contorta* on red/brown loamy sand with stony surface			
	Scattered tall shrubs of *Acacia pteraneura* over open low chenopod shrubland of *Maireana pyramidata, Maireana triptera* and *Rhagodia eremaea* over very open low tussock grassland of *Aristida contorta* on red/brown stony, loamy sand with stony surface	A1b		MWH, 2015
Acacia open tall shrubland	Open tall shrubland to scattered tall shrubs of *Acacia fuscaneura* and occasional *Acacia synchronicia* over open mid shrubland of *Eremophila latrobei* subsp. *latrobei*, *Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila* spp. over scattered low shrubs of *Ptilotus obovatus* and *Solanum lasiophyllum* over open low chenopod shrubland of *Maireana triptera* and *Sclerolaena* spp. over very open low tussock grassland of *Aristida contorta* and *Enneapogon caerulescens* on skeletal red/brown loamy sand with ironstone outcropping	A2		MWH, 2015
Acacia scattered low trees	Scattered low trees of *Acacia fuscaneura* over open tall shrubland to isolated patches of tall shrubs of *Acacia sclerosperma* subsp. *sclerosperma* and *Hakea preissii* over open mid shrubland of *Eremophila* sp. B, *Senna artemisioides* subsp. *filifolia* and *Senna artemisioides* subsp. *helmsii* over scattered low shrubs of *Ptilotus obovatus* on orange/red clayey, sand	A3a		MWH, 2015

	Scattered low trees of *Acacia pteraneura* over scattered tall shrubs of *Hakea preissii* over mid shrubland of *Senna* sp. Meekatharra (E. Bailey 1-26), *Senna* sp. Billabong (J.D. Alonzo 721) and *Eremophila* sp. A on red/orange loamy sand	A3b		MWH, 2015
	Open tall shrubland of *Acacia fuscaneura* over open mid shrubland of *Eremophila* sp. A over scattered mid chenopod shrubs of *Salsola australis*, *Maireana pyramidata* and *Maireana tomentosa* over scattered mid tussock grasses of *Eragrostis* sp. on red loamy sand	A3c		MWH, 2015
Acacia scattered tall shrubland	Isolated patches of mid shrubs of *Acacia sclerosperma subsp. sclerosperma* over scattered low shrubs to open low shrubland of *Frankenia laxiflora, Sclerolaena fimbriolata* and *Enchylaena tomentosa* var. *tomentosa* over open low tussock grassland of *Eragrostis eriopoda* and *Enneapogon caerulescens* on orange/red loamy sand with gypsum outcropping	A4		MWH, 2015
Acacia open tall shrubland	Open tall shrubland of Acacia fuscaneura over scattered mid shrubs to open mid shrubland of Eremophila macmillaniana and Eremophila latrobei subsp. latrobei over open low shrubland of Ptilotus obovatus, Solanum lasiophyllum and Maireana pyramidata over *very open low tussock grassland of* Aristida contorta *and* Enneapogon caerulescens *on red/orange/white skeletal sandy loam with quartz outcropping*	A5		MWH, 2015
Acacia tall shrubland	*Acacia paraneura* and *Acacia aptaneura* tall shrubland over *Eremophila glutinosa* and *Eremophila latrobei* subsp. *latrobei* mid open shrubland over *Cymbopogon ambiguus* isolated clumps of	A6		MWH, 2017

	tussock grasses in narrow drainage channels			
Acacia tall sparse shrubland	*Acacia fuscaneura* tall sparse shrubland over *Eremophila macmillaniana* and *Senna glutinosa* subsp. x *luerssenii* mid sparse shrubland over *Ptilotus obovatus* and *Senna artemisioides* subsp. *helmsii* low sparse shrubland on low stony hills	A7a		MWH, 2017
	Acacia fuscaneura tall sparse shrubland over *Eremophila spathulata* mid sparse shrubland over *Ptilotus obovatus* low sparse shrubland on quartz and ironstone stony low slopes and plains	A7b		MWH, 2017
	Acacia fuscaneura and *Acacia grasbyi* tall sparse shrubland over *Eremophila fraseri* subsp. fraseri and *Acacia tetragonophylla* mid sparse shrubland over *Ptilotus obovatus* low sparse shrubland on undulating stony plains	A7c		MWH, 2017
	Acacia fuscaneura and *Acacia grasbyi* tall sparse shrubland over *Eremophila latrobei* subsp. *latrobei*, *Senna* sp. Meekatharra (E. Bailey 1-26) and *Ptilotus obovatus* mid to low shrubland over *Maireana triptera* and *Sclerolaena diacantha* dwarf chenopod shrubland on rocky ironstone hill	A7d		MWH, 2017
	Acacia fuscsaneura tall sparse shrubland over *Eremophila glutinosa* and *Eremophila latrobei* subsp. *latrobe*i mid sparse shrubland over *Senna artemisioides* subsp. *helmsii* and *Ptilotus obovatus* on low rocky quartz hills	A7e		MWH, 2017
	Acacia aptaneura tall sparse shrubland, over *Senna artemisioides* and *Eremophila* macmillaniana mid sparse shrubland, over *Ptilotus obovatus* low sparse shrubland	A7f		Spectrum, 2020

BIF outcrop vegetation	*Acacia aneura, A. tetragonophylla, Psydrax rigidula, Ptilotus obovatus, Eremophila latrobei subsp. latrobei and Ptilotus rotundifolius*	A8		NVS, 2018
Mulga creekline vegetation	*Acacia quadrimarginea, A. tetragonophylla, A. pteraneura, Hibiscus coatesii, Eremophila forrestii subsp. forrestii, Boerhavia repleta, Iseilema membranaceum and Tragus australianus*	A9		NVS, 2018
Open mulga shrubland	*Acacia aneura, Acacia mulganeura, Acacia victoriae subsp. victoriae, Senna glutinosa subsp. chatelainiana and Eremophila fraseri subsp. fraseri*	A10		NVS, 2018
Acacia tall open shrubland	*Acacia sclerosperma* subsp. *sclerosperma*, *Acacia synchronicia* and *Acacia fuscanera* tall open shrubland over *Eremophila scoparia* and *Senna artemisioides* subsp. *helmsii* mid sparse shrubland over *Sclerolaena cuneata* and *Sclerolaena diacantha* sparse dwarf chenopod shrubland on stony undulating plains, with *Tecticornia disarticulata* (glaucous form) low sparse samphire shrubland in lower drainage areas	A11a		MWH, 2017
	Acacia aptaneura tall open shrubland over *Eremophila scoparia* and *Senna* sp. Meekatharra (E. Bailey 1-26) mid sparse shrubland on low stony rises	A11b		MWH, 2017

Acacia mid sparse shrubland	*Acacia fuscaneura*, *Acacia grasbyi* and *Acacia aptaneura* over *Senna* sp. Meekatharra (E. Bailey 1-26) mid sparse shrubland over *Sclerolaena diacantha* and *Sclerolaena cuneata* dwarf chenopod shrubland on undulating stony plains	A12		MWH, 2017
Acacia drainage line vegetation	*Acacia aptaneura, Acacia caesaneura* and *Acacia macraneura* tall open shrubland, over ± *Eremophila pantonii, ± Eremophila youngii* subsp. *youngii* and *Acacia tetragonophylla* mid sparse shrubland, over ± *Aristida contorta* and ± *Setaria dielsii* low sparse tussock grassland	A13		Spectrum, 2020
Acacia plains vegetation	*Acacia aptaneura, ± Hakea preissii* and ± *Acacia ?* demissa tall sparse shrubland, over ± *Eremophila fraseri* subsp. *fraseri, Acacia tetragonophylla* and ± *Santalum lanceolatum* mid sparse shrubland, over ± *Enneapogon caerulescens* and ± *Aristida contorta* low sparse tussock grassland	A14		Spectrum, 2020
Acacia tall shrubland on drainage lines	*Acacia tetragonophylla, A. caesaneura, A. aptaneura, A. fuscaneura, Eremophila longifolia* tall shrubland to tall open shrubland over *Acacia tetragonophylla, Eremophila forrestii* subsp. *forrestii, Ptilotus obovatus, Eremophila fraseri* subsp. *fraseri, E. lachnocalyx* open shrubland over *Cymbopogon ambiguus* and *Eriachne* flaccida low open tussock grassland <u>Associated species:</u> *Acacia craspedocarpa, A. synchronicia, Dactyloctenium radulans, Eremophila latrobei* subsp. *latrobei, Euphorbia drummondii, Maireana pyramidata, M. triptera, Sclerolaena cuneata, Enchylaena tomentosa* var. *tomentosa, Senna* sp. Meekatharra <u>Landform:</u> Drainage lines	A15		Western Ecological, 2021

	Yellowish red sandy clay loam			
Acacia isolated tall shrubs	*Acacia aptaneura, A. tetragonophylla, A. grasbyi* isolated tall shrubs or low trees over *Acacia grasbyi, Senna* sp. Meekatharra, *Senna artemisioides* subsp. *helmsii, Ptilotus obovatus, Maireana triptera, Sclerolaena cuneata* isolated low shrubs over *Dactyloctenium radulans, Aristida contorta, Ptilotus* aervoides dried grasses low open tussock grassland Associated species: *Eremophila longifolia, Eremophila fraseri* subsp. *fraseri, E. forrestii* subsp. *forrestii, Hakea preissii Rhagodia drummondii* Landform: Outwash slope with granite outcropping; gentle slope with mainly shallow reddish yellow shallow sandy loam; surface rock less than ten percent	A16		Western Ecological, 2021
Acacia isolated low trees	*Acacia synchronicia, A.* aptaneura isolated low trees over *Eremophila lachnocalyx, Senna* sp. Meekatharra, *A. synchronicia* open shrubland over *Dactyloctenium radulans, Aristida contorta* low isolated grass tussocks Associated species: *Acacia caesaneura, A. tetragonophylla, Atriplex vesicaria, Eremophila forrestii* subsp. *forrestii, E. latrobei* subsp. *latrobei, E. longifolia, Hakea recurva* subsp. *arida, Maireana pyramidata, M. triptera, Ptilotus aervoides, P. obovatus, Solanum lasiophyllum, Senna artemisioides* subsp. *helmsii, Tribulus asterocarpa* Landform: Alluvial plain; minor areas of outcropping gneiss/decomposed granitic rock; surface rock five to ten percent	A17a		Western Ecological, 2021

	Washed sand over reddish yellow sandy clay loam			
	Acacia aptaneura isolated low trees over *Eremophila galeata, Acacia synchronicia* isolated shrubs over *Eremophila galeata, Senna* sp. Meekatharra, *Senna artemisioides* subsp. *oligophylla low sparse shrubland* Associated species: *Ptilotus obovatus, Acacia caesaneura, Hakea preissii, Senna* sp. Meekatharra, *Maireana triptera, Sclerolaena diacantha, Salsola australis* Landform: Stony Plain on lower slopes of greenstone hill surface rock (2 to 10 cm; rounded quartz, blueish granite, ironstone, basalt) 50 to 70 percent	A17b		Western Ecological, 2021
Acacia tall sparse shrubland on stony plain	*Acacia synchronicia, A.* aptaneura isolated low trees over *Eremophila lachnocalyx, Senna* sp. Meekatharra, *A. synchronicia* open shrubland over *Dactyloctenium radulans, Aristida contorta* low isolated grass tussocks Associated species: *Acacia caesaneura, A. tetragonophylla, Atriplex vesicaria, Eremophila forrestii* subsp*. forrestii, E. latrobei* subsp. *latrobei, E. longifolia, Hakea recurva* subsp. *arida, Maireana pyramidata, M. triptera, Ptilotus aervoides, P. obovatus, Solanum lasiophyllum, Senna artemisioides* subsp. *helmsii, Tribulus asterocarpa*	A18		Western Ecological, 2021
Hakea open tall shrubland	Open tall shrubland to isolated patches of tall shrubs of *Hakea preissii* and *Acacia sclerosperma* subsp. *sclerosperma* over open mid shrubland to scattered mid shrubs of *Dodonaea viscosa* subsp. *angustissima, Maireana pyramidata* and *Cratystylis subspinescens* over scattered mid chenopod	H1a		MWH, 2015

	shrubs of *Maireana triptera* and *Atriplex vesicaria* over scattered low tussock grassland of *Aristida contorta* on red/orange loamy sand			
	Hakea preissii tall open shrubland over *Eremophila scoparia* mid sparse shrubland over *Atriplex codonocarpa*, *Sclerolaena diacantha* and *Sclerolaena cuneata* dwarf *chenopod shrubland* on stony undulating plains adjacent to drainage	H1b		MWH, 2017
Maireana chenopod shrubland	*Scattered shrubs of* Maireana pyramidata *and* Cratystylis subspinescens *over low chenopod shrubland of* Maireana tomentosa*,* Maireana triptera *and* Dissocarpus paradoxus *over scattered low tussock grassland of* Aristida contorta *on red/brown sandy, clay loam*	Ma1a		MWH, 2015
	Scattered mid shrubs of *Lawrencia helmsii* and *Maireana pyramidata* over low chenopod shrubland of *Atriplex vesicaria* and *Maireana amoena* on red/brown clayey sand	Ma1b		MWH, 2015
Melaleuca open tall shrubland	Open tall shrubland of *Melaleuca stereophloia* over open mid samphire shrubland of *Tecticornia* ? sp. Dennys Crossing (K.A. Shepherd & J. English KS 552) over scattered low shrubs of *Frankenia laxiflora* on red/orange clayey sand	Me1		MWH, 2015
Salsola low chenopod shrubland	Scattered mid shrubs of *Maireana pyramidata* and *Eremophila longifolia* over low chenopod shrubland to low open chenopod shrubland of *Salsola australis*, *Sclerolaena diacantha* and *Dissocarpus paradoxus* over scattered low herbs of *Swainsona paradoxa* on red/orange fine clayey loam	Sa1		MWH, 2015

Senna plains vegetation	*Senna glutinosa, Acacia synchronicia* and *Rhagodia drummondii* mid sparse shrubland, over *Ptilotus obovatus* and *Solanum lasiophyllum* low sparse shrubland, over *Aristida contorta* and *Enneapogon caerulescens* isolated tussock grasses	Se1		Spectrum, 2020
Tecticornia samphire shrubland	Mosaic of mid to tall samphire shrubland dominated by *Tecticornia* species on moist clay	T1		MWH, 2015 MWH, 2017
Tecticornia saltpan vegetation	*Tecticornia peltata, Tecticornia* sp. 1 and *Tecticornia pergranulata* subsp. *pergranulata* low sparse shrubland, over *Eragrostis pergracilis* low sparse tussock grassland, over *Heliotropium curassavicum* and *Dysphania plantaginella* low isolated clumps of forbs	T2		Spectrum, 2020
Bare lake bed (playa)	Bare lake bed (playa)	B1	No photo	MWH, 2015
Mine infrastructure/ Completely Degraded areas	Historical mining infrastructure, consisting of pits, waste rock landforms, tailings landforms, causeways	M1		MWH, 2015 MWH, 2017 Spectrum, 2020 Western Ecological, 2021

Appendix F. Dunefield habitat

Table adapted from MWH (2015):

Extent	Significance	Associated land system	Disturbance and condition	Description and value to fauna
Limited	Significant	Carnegie system	Very good Trudgen (1991) condition. Disturbances include: cattle grazing, rabbits and some limited historic exploration clearing for tracks and logging	This habitat tends to be confined in the region to salt lakes and is consequently of limited extent in the landscape. Vegetation consisted of an open Mulga (*Acacia aneura* sp. complex) woodland with *Hakea preissii* or *Senna artemisioides* over an open shrubland of *Eremophila, Maireana* and *Atriplex* species, over an open tussock grassland. Large trees containing hollows were absent, making this habitat unsuitable for hollow-nesting birds and mammals. The denser areas of vegetation would be

				suitable for supporting an abundance of small birds, reptiles and mammals. Substrate comprised of deep red sands suitable for burrowing species such as the West Coast mulga slider (Priority 1) which was recorded within this habitat during the Survey.

Appendix G. Sources of information

G.1. GIS datasets

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

- 10 metre contours (DPIRD-073)
- Cadastre (Polygon) (LGATE-217)
- Clearing Instruments Activities (Areas Approved to Clear) (DWER-076)
- Clearing Instruments Conditions (Areas Subject to Conditions) (DWER-077)
- Clearing Instruments Proposals (Areas Applied to Clear) (DWER-075)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Directory of Important Wetlands in Australia - Western Australia (DBCA-045)
- EPA Redbook Recommended Conservation Reserves 1976-1991 (DBCA-029)
- EPA Referred Schemes Pending (DWER-121)
- EPA Referred Significant Proposals (DWER-120)
- EPA Referred Significant Proposals Pending (DWER-103)
- Geographic Names (GEONOMA) (LGATE-013)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- IBSA Survey Details (DWER-118)
- 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)
- Ramsar Sites (DBCA-010)
- 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)

G.2. References

Atlas of Living Australia (ALA) (n.d.a) *Anthus (Anthus) novaeseelandiae* (Gmelin, 1789) Atlas of Living Australia. Anthus (Anthus) novaeseelandiae : Australasian Pipit | Atlas of Living Australia (Accessed 1 December 2025).

Atlas of Living Australia (ALA) (n.d.b) *Eragrostis* sp. Erect spikelets (P.K.Latz 2122) NT Herbarium. Atlas of Living Australia. Eragrostis sp. Erect spikelets (P.K.Latz 2122) | Atlas of Living Australia (Accessed 15 December 2025).

Atlas of Living Australia (ALA) (n.d.c) *Lerista eupoda* (Smith, 1996). Atlas of Living Australia. Lerista eupoda : West Coast Mulga Slider | Atlas of Living Australia (Accessed 1 December 2025).

Australian Museum (2019) Peregrine Falcon. Australian Museum, Sydney, 20 March 2019. Peregrine Falcon - The Australian Museum (Accessed 1 December 2025).

Australian Museum (2022) Australasian Pipit. Australian Museum, Sydney, 25 July 2022. Australasian Pipit - The Australian Museum (Accessed 1 December 2025).

Big Bell Gold Operations Pty Ltd (BBGO) (2024) Annual clearing report 2024, CPS 9070/2, received 24 September 2024.

Big Bell Gold Operations Pty Ltd (BBGO) (2025) Clearing permit application form, CPS 9070/3, received 5 May 2025.

Birdlife Australia (2025a) Australasian Pipit. DataZone by Birdlife Australia. Australasian Pipit Anthus Novaeseelandiae Species Factsheet | BirdLife DataZone (Accessed 1 December 2025).

Birdlife Australia (2025b) Red-capped plover. Birdlife Australia. Red-capped Plover - BirdLife Australia (Accessed 1 December 2025).

Birdlife Australia (2025c) Welcome swallow. Birdlife Australia. Welcome Swallow - BirdLife Australia (Accessed 1 December 2025).

Birdlife Australia (n.d.) Australasian Pipit. Birds in Backyards, Birdlife Australia. Australasian Pipit | BIRDS in BACKYARDS (Accessed 1 December 2025).

Board of Botanic Gardens and State Herbarium (BBGSH) (2025) Flora SA. *Eragrostis* sp. Erect spikelets (P.K.Latz 2122) NT Herbarium. Board of Botanic Gardens and State Herbarium, Adelaide. Eragrostis sp. Erect spikelets (P.K.Latz 2122) (Accessed 15 December 2025).

Bureau of Meteorology (BoM) (2006) Map of average pan evaporation – Annual. Bureau of Meteorology. Average annual, monthly and seasonal evaporation maps, Bureau of Meteorology (Accessed 16 December 2025).

Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Meekatharra. Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 26 November 2025).

Cogger, H. G. (2018) Reptiles and amphibians of Australia: Updated Seventh Edition. CSIRO Publishing, Victoria, Australia, 2018.

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

Commonwealth of Australia (2008) Species Profile and Threats Database. Department of Climate Change, Energy, the Environment and Water, Australia. https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl (Accessed 1 December 2025).

Commonwealth of Australia (2020) Wildlife Conservation Plan for Seabirds. Commonwealth of Australia. Wildlife Conservation Plan for Seabirds

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

Department of Biodiversity, Conservation and Attractions (DBCA) (2023b) Conservation category definitions for Western Australian ecological communities.

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

Department of Biodiversity, Conservation and Attractions (DBCA) (2025) Threatened Ecological Communities List November 2025. Department of Biodiversity, Conservation and Attractions. Threatened species and communities | Department of Biodiversity, Conservation and Attractions (Accessed 2 December 2025).

Department of Climate Change, Energy, the Environment and Water (DCCEEW) (1995) Directory of Important Wetlands in Australia – Information Sheet. Department of Climate Change, Energy, the Environment and Water, Canberra. Australian Wetlands Database - Directory Wetland Information Sheet (Accessed 1 December 2025).

Department of Conservation and Land Management (CALM) (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

Department of Conservation and Land Management (CALM) (n.d.) Malleefowl species factsheet. Department of Conservation and Land Management, Western Australia. Malleefowl

Department of Mines, Industry Regulation and Safety (DMIRS) (2020) Clearing permit decision report, CPS 9070/1, granted 3 December 2020. CPS 9070/1 - Big Bell Operations Pty Ltd - Decision Report

Department of Mines, Industry Regulation and Safety (DMIRS) (2021) Clearing permit decision report, CPS 9070/2, granted 30 April 2021. CPS 9070/2 - Big Bell Gold Operations Pty Ltd - Decision Report

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 26 November 2025).

Department of Primary Industries and Regional Development (DPIRD) (2025) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f (Accessed 27 November 2025).

Ecologia Environment (Ecologia) (2009) Weld Range Vertebrate Fauna Assessment. Prepared for Sinosteel Midwest Corporation Pty Ltd, by Ecologia Environment, November 2009. Weld_Range_Fauna_Survey_2009

Environment Australia (2001) A Directory of Important Wetlands in Australia, Third Edition. Environment Australia, Canberra. A Directory of Important Wetlands in Australia - Third Edition

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

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

Environmental Protection Authority (EPA) (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

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

Friend, G. R., Johnson, B. W., Mitchell, D. S. and Smith, G. T. (1997) Breeding, population dynamics and habitat relationships of *Sminthopsis dolichura* (Marsupialia : Dasyuridae) in semi-arid shrublands of Western Australia. Wildlife Research, 24(3), 245-262. https://doi.org/10.1071/WR96070

Garnett, S. T. and Crowley, G. M. (2000) Action Plan for Australian Birds 2000. Environment Australia, Canberra.

Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics

Government of Western Australia (GoWA) (2020) Clearing permit, CPS 9070/1, granted 3 December 2020. CPS 9070/1 - Big Bell Operations Pty Ltd - Permit

International Union for Conservation of Nature (IUCN) (2017) Lerista eupoda. The IUCN Red List of Threatened Species. International Union for Conservation of Nature. Lerista eupoda (Accessed 1 December 2025).

International Union for Conservation of Nature (IUCN) (2025) Long-tailed Dunnart. The IUCN Red List of Threatened Species. https://www.iucnredlist.org/species/40545/21948982 (Accessed 1 December 2025).

La Trobe University (n.d.) Anostraca (fairy shrimp). La Trobe University, Centre for Freshwater Ecosystems. https://www.mdfrc.org.au/bugguide/display.asp?type=9&class=18&subclass=36&couplet=0 (Accessed 1 December 2025).

Lawrie, A. D., Chaplin, J. and Pinder, A. (2021) Biology and conservation of the unique and diverse halophilic macroinvertebrates of Australian salt lakes. Marine and Freshwater Research, 72(11), 1553-1576. https://doi.org/10.1071/MF21088

Mabbutt, J. A., Litchfield, W. H., Speck, N. H., Sofoulis, J., Wilcox, D. G., Arnold, J. A., Brookfield, M. and Wright, R. L. (1963) General Report on Lands of the Wiluna-Meekatharra Area, Western Australia, 1958. Commonwealth Scientific and Industrial Research Organization, Australia, Melbourne, 1963.

Markey, A. S. and Dillon, S. J. (2008) Flora and vegetation of the banded iron formations of the Yilgarn Craton: the Weld Range. Conservation Science Western Australia, 7(1), 153-178. Flora and Vegetation of the banded iron formations of the Yilgarn Craton: the Weld Range

Menkhorst, P., Rogers, D., Clarke, R., Davies, J., Marsack, P., and Franklin, K. (2019) The Australian Bird Guide. CSIRO Publishing, Victoria, 2019.

MWH Australia Pty Ltd (MWH) (2015) Lake Annean flora and fauna assessment. Prepared for Metals X Limited, by MWH Australia Pty Ltd, September 2015.

MWH Australia Pty Ltd (MWH) (2017) Aladdin Project: Reconnaissance flora and fauna assessment. Prepared for Westgold Resources Limited, by MWH Australia Pty Ltd, March 2017.

National Water Grid Authority (NWGA) (2023) Crack the H2O code with our water science glossary. Department of Climate Change, Energy, the Environment and Water, Canberra. Crack the H2O code with our water science glossary | National Water Grid Authority (Accessed 1 December 2025).

Native Vegetation Solutions (NVS) (2018) Reconnaissance flora and vegetation survey: Golden Shamrock Prospect, Central Murchison Gold Project. Prepared for Westgold Resources Limited, by Native Vegetation Solutions, May 2018.

Northern Territory Government (NT Government) (2013) FloraNT – Northern Territory flora online. Northern Territory Government. NT Flora (Accessed 15 December 2025).

Payne, A. L., van Vreeswyk, A. M. E., Leighton, K. A., Pringle, H. J. and Hennig, P. (1998) An inventory and condition survey of the Sandstone-Yalgoo-Paynes Find area, Western Australia. Technical Bulletin 90. Department of Primary Industries and Regional Development, Western Australia, Perth. library.dpird.wa.gov.au/cgi/viewcontent.cgi?article=1005&context=tech_bull

Pringle, H. J. (1994) Pastoral resources and their management in the north-eastern goldfields, Western Australia. Report 22/94. Department of Primary Industries and Regional Development, Western Australia, Perth. https://library.dpird.wa.gov.au/misc_pbns/24

Simpson, K. and Day, N. (2010) Field Guide to the Birds of Australia: Eighth edition. Penguin Australia, 2010.

Spectrum Ecology Pty Ltd (Spectrum) (2020) Nannine Mining Area reconnaissance flora & level 1 fauna assessment. Prepared for Westgold Resources Limited, by Spectrum Ecology Pty Ltd, June 2020.

Threatened Species Scientific Committee (TSSC) (2020) Listing advice: *Bettongia anhydra*, desert bettong. Threatened Species Scientific Committee, established under the *Environment Protection and Biodiversity Conservation Act 1999*. Listing Advice - Bettongia anhydra

Timms, B. V. (2008) Further studies on the fairy shrimp genus Branchinella (Crustacea, Anostraca, Thamnocephalidae) in Western Australia, with descriptions of new species. Records of the Western Australian Museum, 24, 289-306. Timms, 2008

Timms, B. V. (2009) Biodiversity of large branchiopods of Australian saline lakes. Indian Academy of Science. http://www.ias.ac.in/currsci/jan102009/contents.htm

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

Western Australian Herbarium (WAH) (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dbca.wa.gov.au/ (Accessed 2 December 2025).

Western Australian Museum (WAM) (n.d.) Long-tailed dunnart. Western Australian Museum. Sminthopsis longicaudata | WA Museum Collections (Accessed 1 December 2025).

Western Ecological Pty Ltd (Western Ecological) (2021) Nannine Mining Area and Nannine Haul Road Reconnaissance Flora and Vegetation Survey and Basic Terrestrial Fauna Survey Final Report. Prepared for Westgold Resources Limited, by Western Ecological Pty Ltd, February 2021.

Westgold Resources Limited (Westgold) (2025a) Additional information received via email, 10 December 2025.

Westgold Resources Limited (Westgold) (2025b) Additional information received via email, 12 December 2025.

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.