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:	6832/5
Permit type:	Purpose
Applicant name:	Big Bell Gold Operations Pty Ltd
Application received:	8 September 2025
Application area:	12 hectares
Purpose of clearing:	Mineral exploration, mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 51/6, 51/12, 51/31, 51/33, 51/75, 51/96, 51/203, 51/321, 51/486, 51/496, 51/572, 51/575, 51/581, 51/793, 51/794 Prospecting Licence 51/3071
Location (LGA area/s):	Shire of Meekatharra
Colloquial name:	Nannine Gold Project

1.2. Description of clearing activities

Big Bell Gold Operations Pty Ltd proposes to clear 12 hectares of native vegetation within a boundary of approximately 1,009 hectares, for the purpose of mineral exploration, mineral production and associated activities. The project is located approximately 33 kilometres south-west of Meekatharra, within the Shire of Meekatharra.

The application is to allow for clearing to facilitate future mining operations.

Clearing permit CPS 6832/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Petroleum and Exploration) on 30 December 2015 and was valid from 22 January 2016 to 22 January 2021. The permit authorised the clearing of up to 2 hectares of native vegetation within a boundary of approximately 1,573.36 hectares, for the purpose of mineral exploration.

CPS 6832/2 was granted on 22 December 2016, amending the permit to increase the clearing authorised to 12 hectares, along with the removal of Miscellaneous Licence 51/18 due to the purpose of the licence being inconsistent with mineral exploration activities.

CPS 6832/3 was granted on 8 June 2017, amending the permit to include the authorised purpose of clearing to mineral exploration and pipeline.

CPS 6832/4 was granted on 21 January 2021, extending the duration by five years and amending the tenements covered by the permit including Prospecting Licence 51/3071 and removing two dead tenements (M51/523 and M51/652) resulting in the permit boundary being reduced by 474 hectares.

On 8 September 2025, the permit holder applied to amend CPS 6832/5 to extend the duration of the permit by five years. Following correspondence with the permit holder, they also requested that this amendment also include change in the authorised purpose to mineral production and associated activities. Following correspondence with permit holder, this was amended to ‘mineral exploration, mineral production and associated activities’.

Big Bell Gold Operations Pty Ltd also holds CPS 9070/2, granted on 21 April 2021, which allows for the clearing of up to 1,581.75 hectares of native vegetation within a boundary of approximately 1,691 hectares. CPS 6832/5 and CPS 9070/2 have an overlap of approximately 804 hectares.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	8 January 2026
Decision area:	12 hectares of native vegetation

1.4. Reasons for decision

This clearing permit amendment 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 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix B) and relevant datasets (Appendix E), the clearing principles set out in Schedule 5 of the EP Act (Appendix C), existing avoidance and minimisation measures (Section 3.1) and any other matters considered relevant to the assessment (Section 3.3). The Delegated Officer also took into consideration the purpose of the clearing to facilitate exploration, mineral production and assocaited activities.

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;
- impacts to conservation significant flora; and
- impacts to water quality.

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

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

After consideration of the available information, the assessment has not changed since the assessment for CPS 6832/4, however conditions around avoiding clearing riparian vegetation for consistency with CPS 9070/2. The Delegated Officer determined that the proposed change in purpose and extension is not likely to lead to an unacceptable risk to environmental values.

2. Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Mining Act 1978* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 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 evidence of avoidance or mitigation measures was provided to support the application. Review of annual reports (Big Bell, 2025) against CPS 6832/4 provided by Big Bell Gold Operations Pty Ltd indicate that control measures to avoid and minimise clearing and manage introduction or spread of weeds are being implemented (Big Bell, 2025).

3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles (Appendix C) identified the impacts of the proposed clearing are limited and able to be managed to be environmentally acceptable with standard hygiene and vegetation management conditions. Additional details on the factors considered are provided below.

The proposed extension of duration is unlikely to result in any significant change to the environmental impacts of the proposed clearing. The assessment against the clearing principles remains consistent with the assessment contained in decision report CPS 6832/4 and earlier permit revisions, notably CPS 6832/2 which assessed the increase in clearing from two hectares to 12 hectares.

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

Assessment

Priority Fauna

The permit boundary contains habitat for the Priority 1 skink species *Lerista eupoda* (MWH, 2015). This species is restricted to the Murchison region in an area between Meekatharra and Cue (Wilson & Swan, 2021). This skink was observed within dunefields habitat within the permit boundary (MWH, 2015). There is 161.61 hectares of dunefields habitat mapped within the application area during the fauna survey (MWH, 2015).

Priority Ecological Community

Approximately 154 hectares of application area is mapped as the 'Austin Land System' (Priority 3) priority ecological community (PEC). This PEC is mapped over approximately 22,590 hectares (GIS Database), and potential clearing of up to 8.0554 hectares constitutes potential removal of 0.03 percent of the PEC is not considered a significant impact.

A small section in the north of the application area is within the buffer of the Priority Ecological Community (PEC) 'Polelle calcrete groundwater assemblage type on Murchison palaeodrainage on Polelle Station' (GIS Database). Given this is a subterranean PEC, and there are no groundwater dependent ecosystems proposed to be cleared, the proposed clearing is unlikely to impact this community.

Conservation significant flora

No species of Threatened flora were recorded within the application area (MWH, 2015; GIS Database). The flora survey did not identify any species of Priority flora, however, the Priority 3 species *Tecticornia cymbiformis* has been identified in nearby areas of the lake and may be present within the application area (MWH, 2015), with the lake fringe forming suitable habitat (WAH, 1998).

Conclusion

Priority Fauna

The proposed clearing has the potential to reduce the habitat for *Lerista eupoda* in the local area, however, it is not anticipated to have a significant impact on this species as a whole.

Priority Ecological Community

The maximum potential removal of Austin Land System' PEC is limited to 0.03% of the mapped land system and is therefore not considered a significant impact.

Given the 'Polelle calcrete groundwater assemblage type on Murchison palaeodrainage on Polelle Station' is a subterranean PEC, the proposed clearing is unlikely to significantly impact this community.

Conservation significant flora

The proposed clearing may impact Tecticornia cymbiformis, if present, on a local scale. However, this specie has been recorded over other IBRA bioregions and suitable habitat occurs abundantly in the local and regional area.

3.3. Relevant planning instruments and other matters

The amendment was advertised on 7 October 2025 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

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

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

Other relevant authorisations required for the proposed land use include:

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

A Programme of Works 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
During assessment of the application, the environmental officer noted an inconsistency between the stated purpose of the amendment (facilitation of future mining operations) and the CPS 6832/4 permit purpose (mineral exploration and pipelines)	Applicant requested that the purpose for which clearing is authorised be changed to 'mineral production and associated activities. This change was included in the amendment advertisement published 7 October 2025.
During preparation of the decision report for CPS 6832/5, the environmental officer noted that as one tenement is a Prospecting Licence (P51/3071), the amended purpose may need to be revised again depending on the extent and scope of works planned for this tenement	Applicant requested that the purpose for which clearing is authorised be changed to 'mineral exploration, mineral production and associated activities. As this change was minor and the current permit covers mineral exploration, no readvertisement of this change was warranted

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by the landscape of the Western Murchison Bioregion and includes a portion of Lake Annean, which is a proposed environmentally sensitive area (ESA) and associated drainage lines (GIS Database). Aerial imagery indicates the local area has been subject to mining activities.
Ecological linkage	Based on aerial imagery, the application area does not form part of any formal or informal ecological linkages (GIS Database).
Conservation areas	The proposed Lake Annean ESA, as shown in the Department of Water and Environment Regulation dataset DWER-046 is mapped as intersecting the application area. Interrogation of other spatial data sets show that this listing reflects 'Anneen Lake (Lake Nannine) Wetland' being an Australian Nature Conservation Agency (ANCA) Important Wetland. The nearest conservation area is a former leasehold proposed for conservation ('ex Lakeside'), approximately 84 kilometres south-west of the application area (GIS Database).
Vegetation description	Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. The following four vegetation associations have been mapped within the application area (GIS Database): 18: Low woodland; mulga (*Acacia aneura*); 39: Shrublands; mulga scrub; 125: Bare areas; salt lakes; and 1128: Mosaic: Succulent steppe with open scrub; scattered *Acacia sclerosperma* and bowgada over saltbush and bluebush/Succulent steppe; samphire. A Level 1 flora survey of the application area was undertaken by MWH between 14 and 17 July 2015. The following vegetation associations were recorded within the permit area (MWH, 2015): **VA01:** 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. **VA02a:** 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* over very open low tussock grassland of *Aristida contorta* on red/brown loamy sand with stony surface. **VA02b:** 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. **VA03:** Mosaic of mid to tall samphire shrubland dominated by *Tecticornia* species on moist clay. **VA04:** Open tall shrubland to scattered tall shrubs of *Acacia fuscaneura* and occasional *Acacia*

Characteristic	Details
	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. **VA05:** 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 shrubs of *Maireana triptera* and *Atriplex vesicaria* over scattered low tussock grassland of *Aristida contorta* on red/orange loamy sand. **VA06:** 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. **VA07a:** 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. **VA07b:** 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. **VA07c:** 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. **VA08:** 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. **VA09:** 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. **VA10:** Scattered mid shrubs of *Lawrencia helmsii* and *Maireana pyramidata* over low chenopod shrubland of *Atriplex vesicaria* and *Maireana amoena* on red/brown clayey sand. **VA11:** 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.
Vegetation condition	The vegetation survey (MWH, 2015) indicate the vegetation within the proposed clearing area ranges from excellent to completely degraded (Keighery, 1994) condition, with the majority of vegetation considered to be very good to good. The full Keighery (1994) condition rating scale is provided in Appendix D. Since the application area is in the Eremaean Botanical Province of Western Australia, the vegetation is better described as being using Trudgen (1991), this rating scale is also provided in Appendix D.
Climate and landform	The application area is located in an arid zone of Western Australia (BoM, 2025) with an average annual rainfall of 231.7 millimetres (BoM, 2025).
Soil description	The soils within the application area are mapped as deep and shallow, red sandy duplexes and salt lake soils (DPIRD, 2025). The following systems are mapped with in the application area (GIS Database): • Gabanintha system: Greenstone ridges, hills and footslopes supporting sparse acacia and other mainly non-halophytic shrubland • Ausin system: Saline stony plains with low rises and drainage foci supporting low halophytic shrublands with scattered mulga and snakewood

Characteristic	Details
	• Carnegie system and sub-system: Salt lakes with fringing saline alluvial plains, kopi dunes and sandy banks, supporting halophytic shrublands and acacia tall shrublands including bare lake beds inundated for short periods after rain.
Land degradation risk	The application area has been mapped as being comprised of the Austin, Carnegie and Gabanintha land systems (GIS Database). The large majority of the application area is covered by the Carnegie land system (GIS Database). The majority of the Austin land system is generally not susceptible erosion, however the drainage tracts unit of this land system may be susceptible to erosion if perennial vegetation is degraded (Curry et al., 1994). There is only a small area of lakebed within the application area that is associated with this land system (GIS Database). The majority of the Carnegie land system has not been noted as normally being susceptible to accelerated erosion (Curry et al., 1994). The alluvial plains unit of this land system has been identified as having a mild to moderate susceptibility to accelerated erosion (Curry et al., 1994). Only a small percentage of the Carnegie land system within the application area consists of this unit (GIS Database). The Gabanintha land system is also generally not susceptible to erosion (Curry et al., 1994). The creeks and drainage tracts unit of this land system is mildly susceptible to water erosion where degraded (Curry et al., 1994). A small area of the lake bank within the application area is associated with this land system (GIS Database).
Waterbodies	In addition to Lake Annean, the desktop assessment and aerial imagery indicated that a minor, non-perennial watercourse named as Bubba Ngundi Creek transects the central portion of the area proposed to be cleared (GIS Database).
Hydrogeography	The application area is not mapped within a proclaimed public drinking water source area (GIS Database). The area is mapped within the East Murchison Groundwater Area, proclaimed under the *Rights in Water Irrigation Act 1914*. The mapped groundwater salinity is 3000-7000 milligrams per litre total dissolved solids (GIS Database).
Flora	Flora survey did not identify any threatened or priority flora within the application area (MWH, 2015). The permit boundary may contain habitat that supports the Priority 3 flora species *Tecticornia cymbiformis* (MWH, 2015).
Ecological communities	The application area intercepts the mapped area of the Austin Land System Priority 3 Priority Ecological Community (PEC) (GIS Database). This priority ecological community covers approximately 154 hectares of the application area (GIS Database).
Fauna	The Priority 1 species reported is the *Lerista eupoda* (Meekatharra slider) was recorded within the application area (MWH, 2015).
Fauna habitat	The Flora and Fauna Assessment by MWH Australia Pty Ltd (MWH) provided in support of the application identified five broad fauna habitat types and two minor habitat types. Broad habitats included: • dunefields • stony plains • samphire • ironstone hills • lake playa Minor habitats included: • quartz outcrop • chenopod shrubland

B.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix E.1), and the flora survey conducted by MWH (2015), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Tecticornia cymbiformis	P3	Y	Y	Y	1.09	16	N

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

B.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Lerista eupoda	P1	Y	Y	Within	2	N

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

B.4. Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Austin Land System	P3	Y	Y	Y	Within	NA	N

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 biodiversity value including a priority ecological community, an environmentally sensitive area and habitat for one species of priority flora (GIS Database).	At variance (changed from CPS 6832/4)	Yes Refer to Section 3.2.1, 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 habitat which is part of habitat for one species of priority fauna (MWH, 2015).	At variance (changed from CPS 6832/4)	Yes Refer to Section, Refer to Section 3.2.1, above.

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: According to available databases, there are no known records of any Threatened flora species within the application area (GIS Database). The flora survey of the application area did not identify any species of Threatened flora (MWH, 2015).	Not likely to be at variance (unchanged from CPS 6832/4)	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: According to available databases, there are no records of any Threatened Ecological Communities (TECs) within the application area (GIS Database). The vegetation survey of the application area did not identify any vegetation communities considered to be a TEC within the application area (MWH, 2015).	Not likely to be at variance (unchanged from CPS 6832/4)	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 lies within the Murchison Interim Biogeographical Regionalisation of Australia (IBRA) bioregion in which approximately 99 % of the pre-European vegetation remains (GIS Database). The vegetation of the application area has been broadly mapped as Beard vegetation associations 18, 39, 125 and 1128 (GIS Database). These vegetation associations have not been extensively cleared as over 90% remains at both a State and bioregional level (Government of Western Australia, 2019).	Not at variance (unchanged from CPS 6832/4)	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: Lake Annean is mapped as intersecting the application area. As per Appendix B.1, the ESA is linked to the status of the lake as an 'important wetland' (GIS Database). Clearing within the samphire habitat should be minimised to reduce any potential impacts on waterbirds.	Not likely to be at variance (unchanged from CPS 6832/4)	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: The application area is situated over part of Lake Annean (GIS Database). Lake Annean is dry a majority of the time and fills every five to ten years but is listed as an Australian Nature Conservation Agency (ANCA) Important Wetland (Directory of Important Wetlands in Australia) due to it being an important breeding area for waterbirds and a good example of a seasonal saline lake and marsh system (Department of the Environment, 2010). The samphire habitat within the permit area would provide foraging and breeding habitat for bird species when the lake is flooded. There is approximately 475.29 hectares of samphire habitat mapped within the permit area (MWH, 2015). Clearing within the samphire habitat should be minimised to reduce any potential impacts on waterbirds.	At variance (unchanged from CPS 6832/4)	No Refer to Section 3.2.1, above.
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: Given the small amount of clearing and that only a small proportion of the application area is likely to susceptible to erosion if cleared, the proposed clearing is not likely to cause appreciable land degradation (Curry et al., 1994; GIS Database).	Not likely to be at variance (unchanged from CPS 6832/4)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The proposed clearing is not expected to have any impact on the quality of groundwater in the local area. The application area is not mapped within a proclaimed public drinking water area (GIS Database).	Not likely to be at variance (unchanged from CPS 6832/4)	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: With an average annual rainfall of 237.2 millimetres and an average annual evaporation rate of 2,800 millimetres (BoM, 2025) there is likely to be little surface flow during normal seasonal rains. Therefore, the proposed amendment is not likely to cause, or exacerbate, the incidence or intensity of flooding.	Not likely to be at variance (unchanged from CPS 6832/4)	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.

The 'Lake Annean Flora and Fauna Assessment' report by MWH uses the scale below to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Considering its location, the scale below would be more applicable. 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.

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

Appendix E. Sources of information

E.1. GIS datasets

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

- Clearing Instruments Activities (Areas Approved to Clear) (DWER-076)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia - Western Australia (DBCA-045)
- IBRA Vegetation Statistics
- IBSA Survey Details (DWER-118)
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Native Title (Determination) (LGATE-066)
- Native Vegetation Extent (DPIRD-005)
- PEOF Project Areas (DWER-125)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- 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)
- Soil Landscape Mapping - Project Areas (DPIRD-070)
- Soil Landscape Mapping - Rangelands (DPIRD-063)
- Soil Landscape Mapping - Soil Sites (DPIRD-071)
- Soil Landscape Mapping - Systems (DPIRD-064)
- Soil Landscape Mapping - Western Australia attributed by WA Soil Group (DPIRD-076)
- Soil Landscape Mapping - Zones (DPIRD-017)
- Townsites (LGATE-248)
- WA Now Aerial Imagery
- WRIMS - Groundwater Areas (DWER-085)
- WRIMS - Surface Water Resources (DWER-081)

Restricted GIS Databases used:

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

E.2. References

Big Bell Gold Operations Pty Ltd (2025) CPS 6832/4 – 2024 Annual NVCP Report, received 08 September 2025.

Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Meekatharra Airport 007045. Bureau of Meteorology. https://reg.bom.gov.au/climate/data/ (Accessed 03 December 2025).

Curry, P J, Payne, A L, Leighton, K A, Hennig, P, and Blood, D A. (1994), *An inventory and condition survey of the Murchison River catchment, Western Australia*. Department of Agriculture, Perth. Technical Bulletin 84. https://library.dpird.wa.gov.au/tech_bull/4

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

Department of Planning, Lands and Heritage (DPLH) (2025) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS (Accessed 3 December 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 4 December 2025).

Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. https://www.wa.gov.au/system/files/2024-11/procedure-native-vegetation-clearing-permits.pdf

Environmental Protection Authority (EPA) (2016a) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf

Environmental Protection Authority (EPA) (2016b) Technical Guidance – Terrestrial Fauna Surveys. https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf

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

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

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

MWH (2015) Lake Annean Flora and Fauna Assessment. Report prepared for Metals X Limited, by MWH Australia Pty Ltd, September 2015.

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/ (11 December 2025).

Wilson, S., & Swan, G. (2021) *A complete guide to reptiles of Australia* (6th ed.). New Holland Publishers Pty Limited, Sydney

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.