



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

|                               |                                  |
|-------------------------------|----------------------------------|
| <b>Purpose Permit number:</b> | CPS 2404/5                       |
| <b>Permit Holder:</b>         | Northern Star (HBJ) Pty Ltd      |
| <b>Duration of Permit</b>     | From 29 June 2008 – 29 June 2035 |

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

### **PART I – CLEARING AUTHORISED**

**1. Purpose for which clearing may be done**

Clearing for the purpose of mineral exploration, mineral production and mining infrastructure.

**2. Land on which clearing is to be done**

Lot 50 on Deposited Plan 226299, Feysville  
Lot 62 on Deposited Plan 101674, Feysville  
Lot 15 on Deposited Plan 58833, Feysville  
Crown Reserve 2954, Feysville

**3. Clearing authorised**

The Permit Holder must not clear more than 215 hectares of native vegetation within the area cross-hatched yellow on Figure 1 of Schedule 1.

**4. Period in which clearing is authorised**

The Permit Holder shall not clear any native vegetation after 29 June 2030.

### **PART II – MANAGEMENT CONDITIONS**

**5. Avoid, minimise, and reduce impacts and extent of clearing**

In determining the amount of *native vegetation* to be cleared under this permit, the Permit holder must have regard to the following principles, set out in descending order of preference:

- avoid the clearing of *native vegetation*;
- minimise the amount of *native vegetation* to be cleared; and
- reduce the impact of clearing on any environmental value.

## 6. Fauna Management - Malleefowl

Prior to undertaking any clearing authorised under this permit, the permit holder shall engage a fauna specialist to undertake clearance surveys within the areas for *Leipoa ocellata* (malleefowl), including the identification and inspection of active and inactive mounds and malleefowl *critical habitat*;

- (a) The fauna survey report must include:
  - (i) the location of each *Leipoa ocellata* (malleefowl) mound, delineated as either an active mound or inactive mound, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees, to the CEO.
  - (ii) the location of the *Leipoa ocellata* (malleefowl) *critical habitat*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees, to the CEO.
  - (iii) the methodology used to survey the area cross-hatched yellow on Figure 1 of Schedule 1 to establish the *Leipoa ocellata* (malleefowl) *critical habitat* and identify the mound(s);
  - (iv) the extent of the critical habitat of *Leipoa ocellata* (malleefowl) shown on a map; and
  - (v) a description of the *critical habitat* found.
- (b) Where *Leipoa ocellata* (malleefowl) mounds are identified under Condition 6(a) of this Permit, the Permit Holder shall ensure that no clearing of *Leipoa ocellata* (malleefowl) active mounds, or *critical habitat* of the identified *Leipoa ocellata* (malleefowl) active mounds occurs, unless first approved by the CEO.
- (c) The malleefowl pre-clearance survey should also include searches for other conservation significant fauna.
- (d) Where mounds are identified under condition 6(a) of this permit, the permit holder shall:
  - (i) flag the location of the mound(s);
  - (ii) not clear within 50 metres of malleefowl mound(s).

## 7. Flora management

- (a) Prior to undertaking any clearing, the Permit Holder shall engage a *botanist* to undertake a Level 1 survey of the areas to be cleared in accordance with *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* to identify possible occurrences of, and habitat suitable for, Threatened and *priority flora*.
- (b) Prior to undertaking any clearing, where an area has been identified in accordance with condition 7(a) as containing possible occurrences of, and habitat suitable for, Threatened or *priority flora*, the Permit Holder shall engage a *botanist* to inspect that area for the presence of Threatened and *priority flora*.
- (c) Where Threatened flora or *priority flora* are identified in relation to condition 7(b) of this Permit, the Permit Holder shall ensure that:
  - (i) no clearing occurs within 50 metres of identified Threatened or priority 1 flora, unless approved by the CEO in writing;
  - (ii) no clearing of identified Threatened flora occurs unless approved under

- section 40 of the *Biodiversity Conservation Act 2016*
- (iii) no clearing occurs within 20 metres of identified priority 2, 3 and 4 flora, unless approved by the *CEO* in writing; and
- (iv) no clearing of identified *priority flora* occurs unless approved by the *CEO* in writing.

## 8. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) prior to 29 June 2030 *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this Permit by:
  - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
  - (ii) ripping the ground on the contour to remove soil compaction; and
  - (iii) ripping the pit floor and contour batters within the extraction site; and
  - (iv) laying the vegetative material and topsoil retained under condition 8(a) on the cleared area(s)
- (c) within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 8(b) of this Permit:
  - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
  - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 8(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
- (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 8(c)(ii) of this permit, the Permit Holder shall repeat condition 8(c)(i) and 8(c)(ii) within 18 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 8(c)(i) and (ii) of this permit, that determination shall be submitted for the *CEO*'s consideration. If the *CEO* does not agree with the determination made under condition 8(c)(ii), the *CEO* may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 8(c)(ii).

## 9. Weed management

When undertaking any clearing or other activity pursuant to this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (a) Clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) Ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) Restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

## **PART III - RECORD KEEPING AND REPORTING**

### 10. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1 below.

**Table 1: Records that must be kept**

| No. | Relevant matter   | Specifications   |
|-----|---|--|
| 1.  | In relation to the clearing of native vegetation authorised under this Permit:                                    | <ol style="list-style-type: none"><li>a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;</li><li>b) the date that the area was cleared; and</li><li>c) the size of the area cleared (in hectares).</li></ol>   |
| 3.  | In relation to fauna management pursuant to condition 6:  | <ol style="list-style-type: none"><li>a) The location of each Malleefowl mound in accordance with condition 6(a) recorded using Geocentric Datum Australia 2020 (GDA2020).</li></ol>   |
| 2.  | In relation to flora management pursuant to condition 7 of this Permit:   | <ol style="list-style-type: none"><li>a) the location of each Threatened and/or priority flora species recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;</li><li>b) the species name of each Threatened or priority flora species identified; and</li><li>c) a copy of the botanist's flora survey report</li></ol>                                    |
| 4.  | In relation to the <i>revegetation</i> and <i>rehabilitation</i> of areas pursuant to condition 8 of this Permit: | <ol style="list-style-type: none"><li>a) the location of any areas revegetated and rehabilitated, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;</li><li>b) a description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken;</li><li>c) the size of the area revegetated and <i>rehabilitated</i> (in hectares);</li></ol> |

|  |  |  |
|--|--|--|
|  |  | d) the species composition, structure and density of <i>revegetation</i> and <i>rehabilitation</i> , and<br>e) a copy of the <i>environmental specialist's</i> report. |
|--|--|--|

## 11. Reporting

- (a) The Permit Holder must provide to the *CEO* on or before 30 June of each year, a written report:
- (i) of records required under condition 10 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* on or before 31 December of each year.
- (c) Prior to 28 February 2030, the Permit Holder must provide to the *CEO* a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

## DEFINITIONS

In this permit, the terms in Table 2 have the meanings defined.

**Table 2: Definitions**

| Term                     | Definition   |
|--------------------------|--|
| botanist                 | means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience in identification and surveys of flora native to the bioregion being inspected or surveyed, or who is approved by the CEO as a suitable botanist for the bioregion;                                 |
| CEO                      | Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .   |
| clearing                 | has the meaning given under section 3(1) of the EP Act.  |
| condition                | a condition to which this clearing permit is subject under section 51H of the EP Act.  |
| critical habitat         | means any part of the Permit area comprising of habitat for <i>Leipoa ocellata</i> (malleefowl) and its population, that is critical for the health and long term survival of <i>Leipoa ocellata</i> (malleefowl) and its population.  |
| department               | means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.   |
| direct seeding           | means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;   |
| environmental specialist | means a person who holds a tertiary qualification in environmental science or equivalent and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the <i>CEO</i> as a suitable environmental specialist. |
| EP Act                   | <i>Environmental Protection Act 1986</i> (WA)  |

|  |  |
|--|--|
| fauna specialist   | means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the <i>CEO</i> as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> . |
| fill   | means material used to increase the ground level, or to fill a depression.   |
| <i>Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment</i> | means the Environmental Protection Authority’s Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment, December 2016.   |
| local provenance   | means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared.  |
| mulch  | means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.  |
| native vegetation  | has the meaning given under section 3(1) and section 51A of the EP Act.  |
| priority flora   | means those plant taxa described as priority flora classes 1, 2, 3, 4 or 5 in the <i>Department of Parks and Wildlife’s Threatened and Priority Flora List for Western Australia</i> (as amended);   |
| planting   | means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.   |
| rehabilitate, rehabilitated and rehabilitation   | means actively managing an area containing native vegetation in order to improve the ecological function of that area.   |
| revegetate, revegetated and revegetation   | means the re-establishment of a cover of native vegetation in an area such that the species composition, structure and density is similar to pre-clearing vegetation types in that area, and can involve regeneration, direct seeding and/or planting  |
| weeds  | means any plant –<br>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or<br>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or not indigenous to the area concerned.  |

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## END OF CONDITIONS



**Meenu Vitarana**

**Manager**

**NATIVE VEGETATION REGULATION**

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

27 November 2025



# Schedule 1

The boundary of the areas authorised to be cleared are shown in the map below (Figure 1)

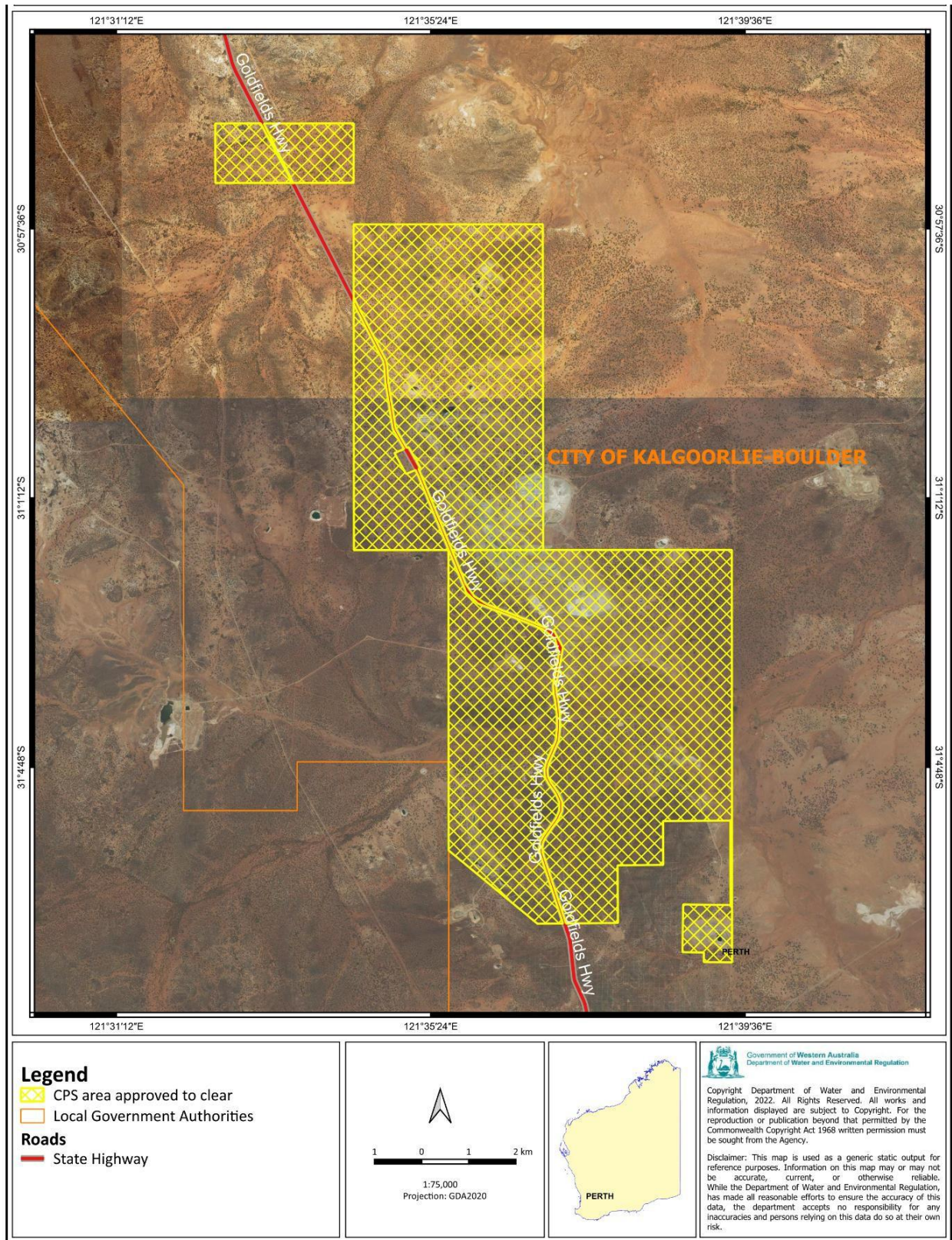


Figure 1: Map of the boundary of the area within which clearing may occur hashed yellow.



# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

|                               |  |
|-------------------------------|--|
| <b>Permit number:</b>         | CPS 2404/5   |
| <b>Permit type:</b>           | Purpose permit   |
| <b>Applicant name:</b>        | HBJ Minerals Pty Ltd   |
| <b>Application received:</b>  | 26 May 2025  |
| <b>Application area:</b>      | 215 hectares of native vegetation  |
| <b>Purpose of clearing:</b>   | Mineral exploration  |
| <b>Method of clearing:</b>    | Mechanical removal   |
| <b>Property:</b>              | Lot 50 on Deposited Plan 226299, Feysville<br>Lot 62 on Deposited Plan 101674, Feysville<br>Lot 15 on Deposited Plan 58833, Feysville<br>Crown Reserve 2954, Feysville |
| <b>Location (LGA area/s):</b> | City of Kalgoorlie-Boulder   |
| <b>Localities (suburb/s):</b> | Feysville  |

### 1.2. Description of clearing activities

This amendment to CPS 2404/4 is to extend the period in which the clearing is authorised (see Figure 1, Section 1.5).

The proposed extension date of the permit will allow for clearing undertaken as required for mineral exploration, mineral production and mining infrastructure activities to continue at Northern Star's South Kalgoorlie Operations. The area and location of clearing and total clearing allowance will remain unchanged.

Since the commencement of the permit in June 2008, approximately 96.99 hectares of the approved 215 hectares has been cleared.

### 1.3. Decision on application

|                       |   |
|-----------------------|---|
| <b>Decision:</b>      | Granted   |
| <b>Decision date:</b> | 27 November 2025  |
| <b>Decision area:</b> | 215 hectares of native vegetation, as depicted in Section 1.5, below. |

### 1.4. Reasons for decision

This clearing permit amendment application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 14 days and no submissions were received.



In making this decision to amend the permit, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix E.1), the findings of flora and vegetation surveys, the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3.3).

It is noted that other than a slight modification to remove road reserves and a town site which was erroneously included in the previous permit, no modifications to the clearing footprint or approved clearing area have been proposed. A reassessment of the application area identified that the assessment of environmental impacts of the proposed clearing remain largely unchanged since the assessment for CPS 2404/4.

In determining to amend the clearing permit subject to conditions, the Delegated Officer considered that the proposed amendments to extend the duration of the permit is not likely to lead to an unacceptable risk to the environment.

## 1.5. Site map

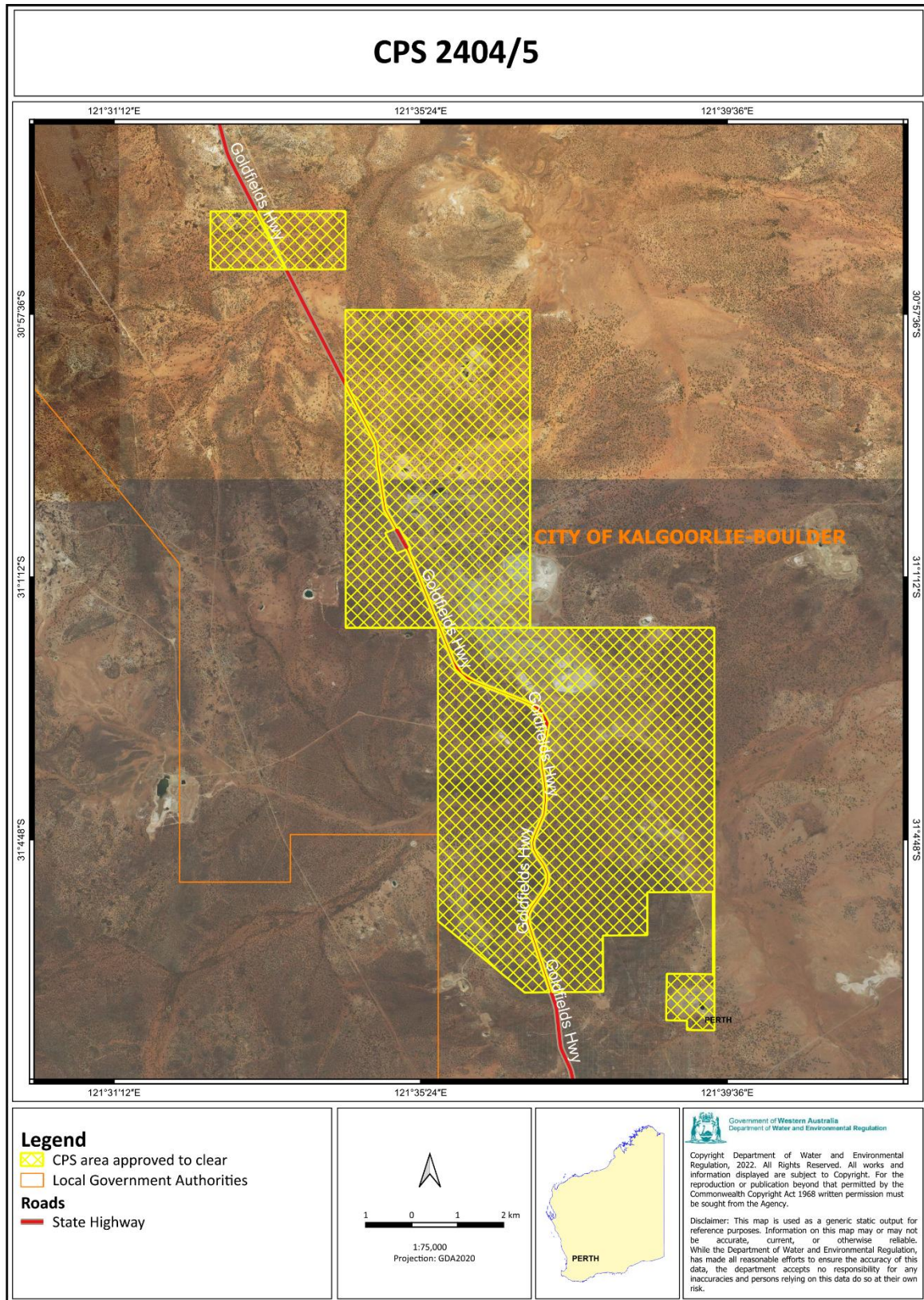


Figure 1 - Map of the application area

The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

## 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 (see 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 polluter pays principle
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Planning and Development Act 2005* (WA) (P&D Act)
- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Soil and Land Conservation Act 1945* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Reconnaissance Flora and Basic Fauna Survey*, Prepared for Northern Star Resources Ltd, (Botanica Consulting, January 2025)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

After assessment of the most recent supporting information, the avoidance and mitigation measures implemented by the permit holder are unchanged. Noting that no additional clearing is proposed under the amendment application CPS 2404/5, no additional avoidance and mitigation measures were considered necessary.

Actions taken to avoid and minimise were recorded between June 2008 until the present. These records indicate the following avoidance and minimisation measures:

- Minimises the risk of the introduction and spread of weeds by ensuring that vehicles and machinery are washed down and cleaned when entering and leaving sites.
- Exploration staff are trained in Malleefowl identification and conduct field inspections, as per internal procedures, for all mineral exploration programmes prior to clearing. Observed malleefowl activity and mounds are reported to the Environmental Department and exclusion zones are implemented.
- On completion of an exploration programme the site is completely rehabilitated as per DMIRS requirements for rehabilitating low impact exploration disturbance (Northern Star Resources Ltd, 2025).

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

### 3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 2404/4.

Consideration of impacts to fauna under the reassessment is set out below.

As a result, updates have been made to the permit conditions to align with DWER's current standard conditions. These updated conditions include:

- Condition 7, Fauna Management – Malleefowl
- Condition 9, Revegetation and rehabilitation temporary works
- Condition 11, Records to be kept



### 3.2.1. Biological values (significant fauna) - Clearing Principle b

#### Assessment

The desktop assessment indicates the application is likely to contain suitable habitat for two species of priority fauna and two species of threatened fauna. The desktop assessment along with the Reconnaissance Flora and Basic Fauna Survey 2025, Prepared by Botanica Consulting for Northern Star Resources Ltd (Botanica Consulting, 2025) identified the following habitat availability and possible impacts to fauna within the application area. A large portion of the application area was not included in the survey (see Appendix D).

#### ***Leipoa ocellata* (malleefowl) VU**

The malleefowl (*Leipoa ocellata*) is a stocky ground-dwelling Australian bird about the size of a domestic chicken (to which it is distantly related). It is notable for the large nesting mounds constructed by the males and lack of parental care after the chicks hatch (ALA, 2025). The desktop assessment found eight records of malleefowl within the application area, and another 12 recordings within the local area (QGIS database, 2025). In previous advice, DBCA (2023) suggested that malleefowl uses the local area for breeding, and potentially for foraging purposes. The 2025 flora and vegetation survey found no mounds or evidence of malleefowl activity within the survey area, suggesting no breeding activity is occurring, however non-breeding individuals may utilise the application area. Given the 2025 survey did not include all of the application area (see Appendix D), the presence of past recordings of malleefowl and the presence of past malleefowl mounds suggest it is possible that significant habitat may be present within the application area. The permit will require the applicant to follow condition 7 to minimise and avoid significant impacts to malleefowl.

#### ***Jalmenus aridus* (inland hairstreak, desert blue butterfly) P2**

This species prefers habitats of open woodland with mature *Senna artemisioides* ssp. *filifolia* as well as mixed flowering shrubs such as *Eremophila*, *Scaveola*, and *Maireana* with open areas of well drained exposed ground adjoining the hostplants (Botanica consulting, 2025). The species could possibly utilise the area, however surveys nearby have found no evidence of this butterfly in the area. The desktop assessment found 90 recordings of the species between the years 2021 and 2023, with the closest recordings located approximately 15 kilometres from the application area. A number of smooth bark Eucalyptus trees were inspected for *Froggattella kirbii*, the attendant ant of the *Jalmenus aridus*, and none were located (Botanica Consulting, 2025). Given the availability of habitat in the local area, and the lack of records of the attendant ant, it is unlikely that the further clearing of 118.01 hectares will contribute to a significant impact to the species.

#### ***Ogyris subterrestris petrina* (bronze azure butterfly) CR**

Many flowering plants of the lower, mid and upper storey are likely to be nectar sources for the adult butterfly. In woodlands, many plants such as Eucalyptus, Acacia, Grevillea, Hakea, and annual species would be probable nectar plants. This butterfly is dependent on a sugar ant species (*Camponotus* sp. nr. *terebrans*). Floristically diverse habitats are also needed to sustain high densities of the host ant which nests at the base of eucalypts. This species was recorded 14 times between 2021 and 2023 approximately 40 kilometres from the application area. No species were recorded during the 2025 flora and fauna survey. Given the recent recordings of the arid bronze azure butterfly, the possible presence and habitat use of the application area cannot be ruled out, however due to the distance of the records from the application area and lack of sightings during the 2025 flora and fauna survey, impacts of the proposed clearing are not likely to contribute to a significant impact to the species.

#### ***Idiosoma* sp. (trapdoor spider)**

Five records of the trapdoor spider were recorded approximately 13 kilometres from the application area. The trapdoor spider is found in vegetation habitats which are highly abundant in the local area (20km radius from the application area). Given the remaining clearing authorised under this permit is 118.01 hectares, the distance of the records from the application area and the remaining vegetation habitat available for the trapdoor spider in the local area is high, the proposed amendment is not likely to contribute to significant impacts to the species habitat availability.

#### Conclusion

Given the above, impacts to the *Jalmenus aridus* (inland hairstreak, desert blue butterfly) and *Ogyris subterrestris petrina* (arid bronze azure butterfly) and *Idiosoma* sp. (trapdoor spider) are not significant. Any further impacts can be minimised by adopting the avoidance and minimisation methods outlined in section 3.1. Significant impacts to

*Leipoa ocellata* (Mallefowl) may occur given the past recordings of the species habitat use within the application area.

#### Conditions

Updated fauna management identified within condition 7 will minimise and avoid significant impacts to *Leipoa ocellata* (Mallefowl).

### **3.3. Relevant planning instruments and other matters**

Several Aboriginal sites of significance have been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Contaminated Sites branch advised that the site contains landfill waste, tailings and contaminated materials. The proposed clearing is understood to be around the mine area itself, and tailings dusts, cyanide, metals, chlorinated/non-chlorinated substances and hydrocarbons may be encountered in soil during the proposed clearing activities. Advice from the contaminated sites branch concludes a site management plan should be developed and implemented to address any risks associated with potential exposure to contamination in soils (DWER, 2025).

**End**

## **Appendix A. Site characteristics**

### **A.1. Site characteristics**

| Characteristic         | Details  |
|------------------------|--|
| Local context          | <p>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 located in Shire of Kalgoorlie-Boulder within the Coolgardie Bioregion. Surrounding the application area are rural sites and mining tenures.</p> <p>Spatial data indicates the local area (20-kilometre radius from the centre of the area proposed to be cleared) retains approximately 96.94 per cent of the original native vegetation cover.</p>  |
| Ecological linkage     | There are no mapped ecological linkages within the application area.   |
| Conservation areas     | Kalamunda Nature reserve is located approximately 3 kilometres south-west of the application area.   |
| Vegetation description | <p>The mapped vegetation types intersecting the application area:</p> <ul style="list-style-type: none"> <li>COOLGARDIE_9, BINNERINGE_9, BINNERINGE_468 and COOLGARDIE_468 which are all described as Wheatbelt; York gum, salmon gum etc. Eucalyptus loxophleba, E. salmonophloia. Goldfields; gimlet, redwood etc. E. salubris, E. oleosa. Riverine; rivergum E. camaldulensis. Tropical; messmate, woolyb</li> <li>BINNERINGE_221 which is described as Atriplex spp. Maireana spp. communities on alkaline soils</li> </ul> <p>The mapped vegetation types retain approximately 96.94 per cent of the original extent (Government of Western Australia, 2019).</p> |
| Vegetation condition   | The condition rating scale within the survey area was rated as 'Degraded' to 'Very Good' (Botanica Consulting, 2025).  |

| Characteristic        | Details   |
|-----------------------|---|
|                       | The full Trudgen (1991) condition rating scale is provided in Appendix C. The full survey descriptions and mapping are available in Appendix D.   |
| Climate and landform  | The Coolgardie bioregion experiences an arid to semi-arid climate, with an average rainfall between 200-300 mm, sometimes in summer but usually in winter (BOM, 2025). The nearest Bureau of Meteorology (BoM) weather station is the Kalgoorlie-Boulder Airport weather station (#12038), located approximately 22 km north of the survey area (Botanica Consulting, 2025).  |
| Soil description      | <p>The soil is mapped as 7 different soil systems (QGIS database, 2025):</p> <ul style="list-style-type: none"> <li>Graves System, 265Gr, Basalt and greenstone rises and low hills supporting eucalypt woodlands with prominent saltbush and bluebush understoreys.</li> <li>Gumland System, 265Gm, Extensive pedepains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys.</li> <li>GundockertaSystem, 265Gu, Extensive, gently undulating calcareous stony plains supporting bluebush shrublands.</li> <li>Lefroy System, 265Lf, Salt lakes and fringing saline plains, sandy plains and dunes with chenopod low shrublands.</li> <li>Mine, 265GmX_MIN, Disturbed area, mines, mullock dumps etc</li> <li>Moriarty System, 265Mo, Low greenstone rises and stony plains supporting chenopod shrublands with patchy eucalypt overstoreys.</li> <li>Red Hill System, 265Rh, Basalt hills and ridges supporting acacia shrublands and patchy eucalypt woodlands with mainly non-halophytic undershrubs</li> </ul> <p>The 2025 flora and fauna survey noted that the soils consist of calcareous loamy earths and red loamy earths with salt lakes soils and some red brown hardpan shallow loams and red sandy duplexes.</p> |
| Land degradation risk | <p>Approximately 0.4 per cent of the application area is mapped within the soil system Mine, 265GmX_MIN, Disturbed area, mines, mullock dumps etc.</p> <p>Calcareous loamy earths are susceptible to wind erosion. Being in the arid zone, the risk of water erosion is low.</p>  |
| Waterbodies           | <p>Reconnaissance flora and basic fauna survey 2025 identified there are no wetlands of international importance (Ramsar Wetlands) or national importance (Australian Nature Conservation Agency Wetlands) within the survey area nor any proposed or gazetted conservation reserves (Botanica consulting, 2025).</p> <p>This is consistent with the QGIS database, indicating no wetlands/waterbodies within the application area.</p>   |
| Hydrogeography        | <p>The desktop assessment and aerial imagery indicated that there are multiple non-perennial waterlines intersecting the application area. The application area is not mapped within a surface water area (QGIS database, 2025).</p> <p>According to the reconnaissance flora and basic fauna survey 2025, The survey area is located approximately 7 km from Lake Lefroy, one of the larger salt lakes in the Coolgardie bioregion. There are no permanent/perennial inland waters or drainage lines within the survey area.</p> <p>The application area is not within a Clearing control Catchment (CAWSA).</p>   |
| Flora                 | <p>During the Reconnaissance flora and basic fauna survey 2025, no Threatened Flora listed under the Western Australian <i>Biodiversity Conservation Act 2016</i> (BC Act) or Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) were found within the survey area. Two Priority flora, <i>Eremophila praecox</i> (P2) and <i>Melaleuca coccinea</i> (P3), as listed by DBCA were identified in the survey area.</p> <p>Special data indicate 28 priority flora records within the same vegetation types in local area (57km).</p>  |



| Characteristic         | Details  |
|------------------------|--|
| Ecological communities | There are no threatened ecological communities within the local area (20km radius of the application area).  |
| Fauna                  | <p>No Threatened fauna listed under the EPBC Act or BC Act, or Priority fauna as listed by DBCA were identified within the reconnaissance flora and basic fauna survey 2025 survey area (Botanica Consulting, 2025).</p> <p>According to the special data desktop survey, 8 fauna records in local area (50km of the application area), the nearest records of fauna which may utilise the present habitat are <i>Leipoa ocellata</i> (Mallefowl) (VU) recorded within the application area, <i>Jalmenus aridus</i> (inland hairstreak, desert blue butterfly) (P2) 15km from the application area, <i>Ogyris subterrestris petrina</i> (bronze azure butterfly) (CR) new records found 40km from the application area and <i>Idiosoma</i> sp. (trapdoor spider) 13km from the application area.</p> |

## A.2. Vegetation extent

|                    | Pre-European extent (ha) | Current extent (ha) | Extent remaining (%) | Current extent in all DBCA managed land (ha) | Current proportion (%) of pre-European extent in all DBCA managed land |
|--------------------|--------------------------|---------------------|----------------------|--|--|
| IBRA bioregion     |                          |                     |                      |  |  |
| COOLGARDIE         | 12,912,204.35            | 12,648,491.39       | 97.96                | 2,114,349.37                                 | 16.71621783  |
| Vegetation complex |                          |                     |                      |  |  |
| COOLGARDIE_9       | 240442.0                 | 235101.0            | 97.8                 | 18984.3                                      | 8.1  |
| BINNERINGE_9       | 104235.5                 | 103041.5            | 98.9                 | 4041.8                                       | 3.9  |
| BINNERINGE_468     | 34671.7                  | 34619.2             | 99.9                 | n/a  | n/a  |
| BINNERINGE_221     | 7713.3                   | 7541.1              | 97.8                 | n/a  | n/a  |
| COOLGARDIE_468     | 583357.7                 | 575360.6            | 98.6                 | 130719.2                                     | 22.7   |
| Local area         |                          |                     |                      |  |  |
| 20km radius        | 275,798.00               | 275,798.00          | 96.94                | -  | -  |

\*Government of Western Australia (2019a)

\*\*Government of Western Australia (2019b)

## Appendix B. Assessment against the clearing principles

The assessment against the clearing principles remained unchanged from CPS 2404/4 assessed in 2015.

| Assessment against the clearing principles | Variance level | Is further consideration required? |
|--|----------------|------------------------------------|
| Environmental value: biological values     |                |                                    |

| Assessment against the clearing principles  | Variance level               | Is further consideration required?   |
|---|------------------------------|--------------------------------------|
| <p><u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p><u>Assessment:</u></p> <p>The application area does comprise of a high level of biological diversity, supporting habitat for conservation significant fauna species and five vegetation complexes.</p> <p>According to spatial data, within the local area (20km radius) there are 28 priority flora within the same vegetation types as the application area. The nearest records are <i>Austrostipa turbinata</i> (P3) and <i>Frankenia glomerata</i> (P4), both within 3km of the application area.</p> <p>The 2025 flora and fauna survey identified two priority flora species within the survey area, being <i>Eremophila praecox</i> (P2) and <i>Melaleuca coccinea</i> (P3).</p> <p>The proposed clearing of the remaining 118.01 hectares may not be a significant impact on the biodiversity of the application area given the surrounding areas are highly vegetated. However may impact individual priority flora species. Condition 8 flora management has not changed since the past amendment 2404/4. The condition will assist in avoiding the clearing of priority flora species.</p>                    | Not likely to be at variance | No                                   |
| <p><u>Principle (b):</u> “Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</p> <p><u>Assessment:</u></p> <p>The desktop assessment identifies that the area proposed to be cleared may contain significant habitat for conservation significant fauna. Records of the following conservation significant fauna were mapped within the available QGIS database;</p> <ul style="list-style-type: none"> <li>- <i>Leipoa ocellata</i> (Mallefowl) (VU) recorded within the application area,</li> <li>- <i>Jalmenus aridus</i> (inland hairstreak, desert blue butterfly) (P2) 15km from the application area,</li> <li>- <i>Ogyris subterrestris petrina</i> (bronze azure butterfly) (CR) new records found 40km from the application area and</li> <li>- <i>Idiosoma</i> sp. (trapdoor spider) 13km from the application area</li> </ul> <p>the 2025 Reconnaissance Flora and Basic Fauna Survey did not record the above species, however is possible they may be present within the application areas not surveyed, or utilising the application area to move between habitat. The species are considered further in section 3.1.1</p> | May be at variance           | Yes<br><i>Refer to section 3.1.1</i> |
| <p><u>Principle (c):</u> “Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</p> <p><u>Assessment:</u></p> <p>There is no mapped flora listed as threatened under the EPBC act within the application area, or within the local area (20km buffer) (QGIS database, 2025). No threatened flora were recorded within the 2025 flora and fauna survey (Botanica Consulting, 2025)</p>  | Not likely to be at variance | No.                                  |
| <p><u>Principle (d):</u> “Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</p> <p><u>Assessment:</u></p> <p>No Threatened Ecological Communities (TECs) listed under the Commonwealth EPBC Act or the Western Australian BC Act are known to</p>   | Not at variance              | No                                   |

| Assessment against the clearing principles   | Variance level               | Is further consideration required? |
|--|------------------------------|------------------------------------|
| <p>occur within the survey area or within 40 km of the survey area (Botanica Consulting, 2025).</p> <p>The nearest threatened ecological community is Emu Land System, mapped 41 kilometres north-east of the application area, and Mount <i>Belches Acacia quadrimarginea</i>/<i>Ptilotus obovatus</i> (banded ironstone formation) located 47 kilometres east of the application area (QGIS database, 2025).</p>   |                              |                                    |
| <b>Environmental value: significant remnant vegetation and conservation areas</b>  |                              |                                    |
| <p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of native vegetation in the local area, being 96.94% is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>   | Not likely to be at variance | No.                                |
| <p><u>Principle (h):</u> <i>“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></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area is 3 kilometres from the application area, and with no linkages or waterbodies in the application area associated with the conservation area, the proposed clearing is not likely to have an impact on the environmental values of adjacent conservation areas.</p>  | Not at variance              | No                                 |
| <b>Environmental value: land and water resources</b>   |                              |                                    |
| <p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>The application area intersects multiple non-perennial watercourses in the form of ephemeral creeks that cross under the application area. It is possible that vegetation within the application is growing in association with the watercourses, however given the non-perennial nature of the water courses, the proposed clearing is not expected to significantly impact these non-perennial watercourses.</p>  | Not likely to be at variance | No                                 |
| <p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The calcareous loamy soils of the application area are prone to wind erosion when ground cover vegetation is removed. Given the high remnant vegetation within the local area, the proposed clearing is not likely to exacerbate wind erosion risks.</p> <p>Approximately 8 per cent of the survey area has been extensively cleared. given the high remnant vegetation within the local area, further clearing within the surveyed area is unlikely to lead to land degradation issues such as salinity, water logging or acidic soils (Botanica Consulting, 2025).</p> | Not likely to be at variance | No                                 |

| Assessment against the clearing principles  | Variance level               | Is further consideration required? |
|---|------------------------------|------------------------------------|
| <p><u>Principle (i):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</p> <p><u>Assessment:</u></p> <p>Given no wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.</p> <p>The application area intersects multiple non-perennial waterlines, however noting the purpose of the clearing, any impacts surface water quality are likely to be localised and short term.</p>                                      | Not likely to be at variance | No                                 |
| <p><u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><u>Assessment</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding (QGIS database).</p> <p>Rainfall in the Eastern Goldfields subregion has an average rainfall of 200 to 300mm. Rainfall events are unlikely to result in localised flooding (Botanica Consulting, 2025).</p> | Not likely to be at variance | No                                 |

## Appendix C. Vegetation condition rating scale

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

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

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

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

| Condition | Description  |
|-----------|--|
| Excellent | Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.  |
| Very good | Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks. |
| 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.                                      |

| Condition           | Description  |
|---------------------|--|
| Very poor           | Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species. |
| Completely degraded | Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.                                       |



## Appendix D. Biological survey information excerpts

Northern Star Resources Ltd  
CPS2404 – Reconnaissance Flora and Basic Fauna Survey

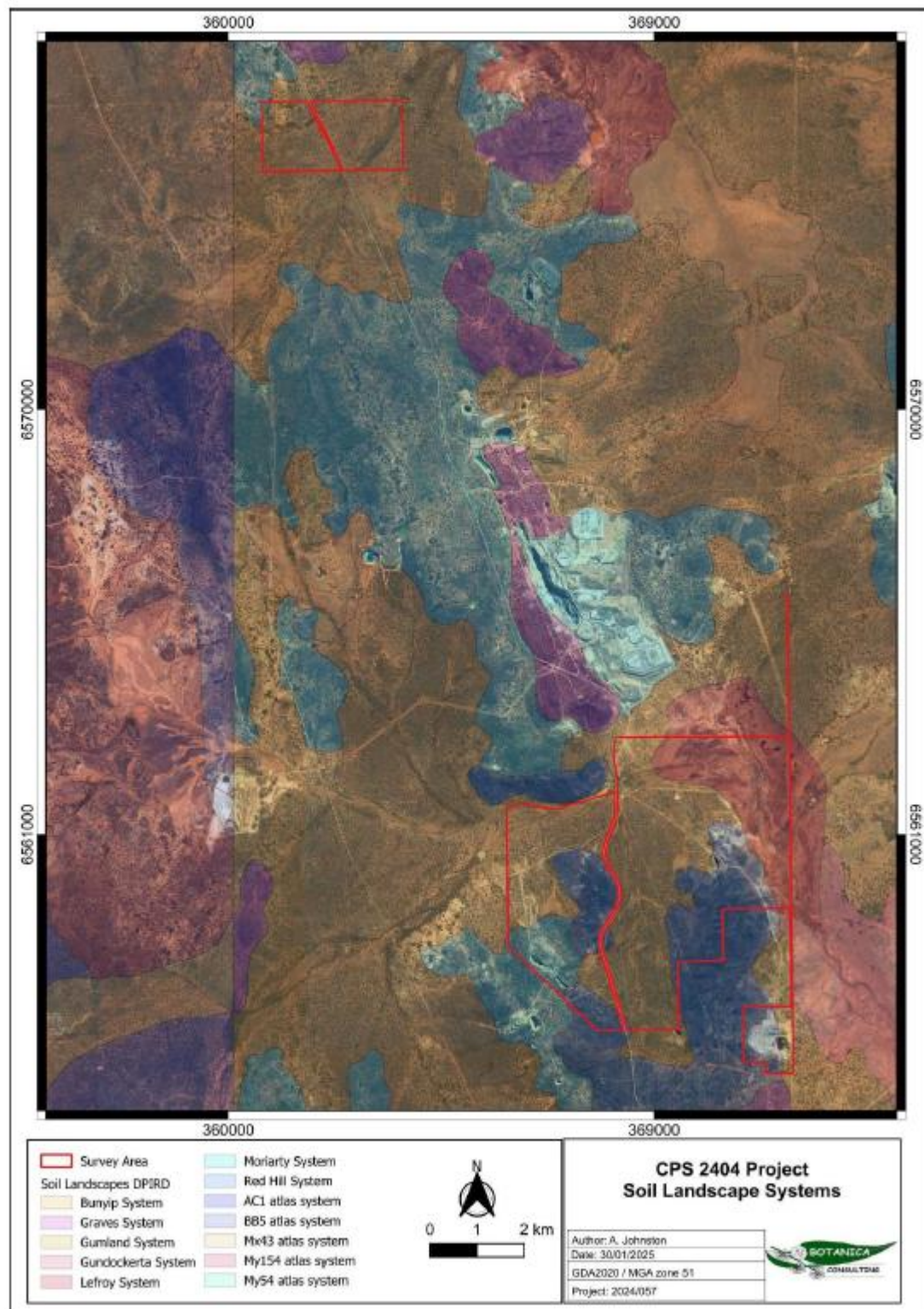


Figure 2-2: Map of soil landscape systems within the survey area

Figure 2 - Map of the soil landscape systems and Survey area (Botanica Consulting, 2025)



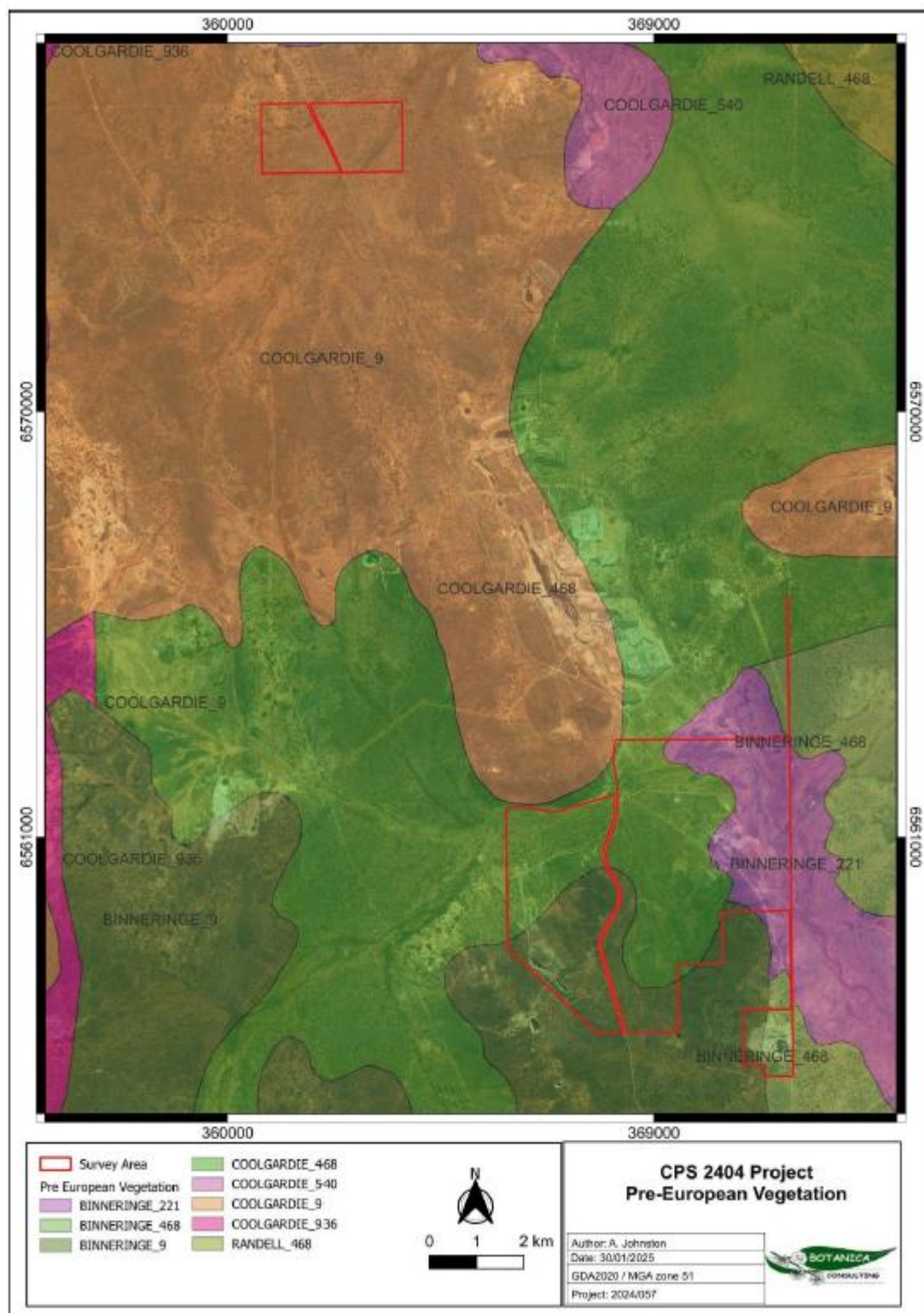


Figure 2-3: Pre-European vegetation associations within the survey area

Figure 3 - Map of the vegetation associations (Botanica Consulting, 2025)



**Figure 4-4: Priority flora within the Survey Area**

Figure 4 - Map of the Priority flora within the survey area (Botanica Consulting, 2025)



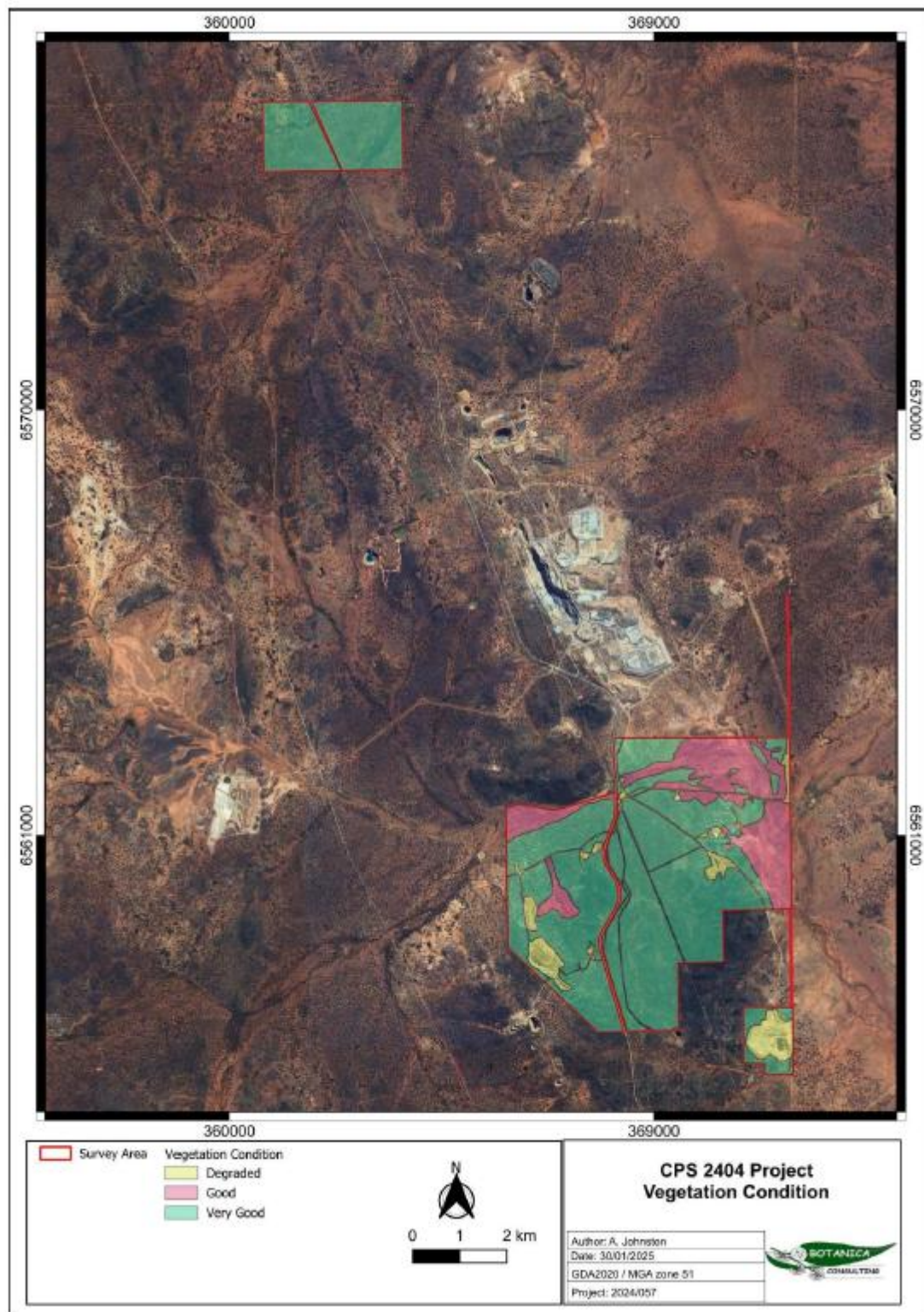


Figure 4-5: Vegetation condition within the survey area

Figure 5 - Surveyed vegetation conditions (Botanica Consulting, 2025)

## Appendix E. Sources of information

### E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

### E.2. References

Bureau of Meteorology (2025) Latest Weather Observations for Kalgoorlie-Boulder, Kalgoorlie-Boulder Airport, accessed November 2025

Botanica Consulting (2025) CPS2404 project, Reconnaissance Flora and Basic Fauna Survey, Prepared for Northern Star Resources Ltd.

- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: [https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2\\_assessment\\_native\\_veg.pdf](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf).
- Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: [https://dwer.wa.gov.au/sites/default/files/Procedure\\_Native\\_vegetation\\_clearing\\_permits\\_v1.PDF](https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF).
- Department of Water and Environmental Regulation (DWER) (2025) Advise from the contaminated sites branch for CPS 2404/5. Received on 8 October 2025 (DWERDT1235703).
- Environmental Protection Authority (EPA) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: [http://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey\\_Dec13.pdf](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) (2016). *Technical Guidance – Terrestrial Fauna Surveys*. Available from: [https://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf](https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.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>
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) *Atlas of Australian Soils*, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- Northern Star Resources Ltd (2025) *Clearing permit amendment application CPS 2404/5*, received 26 May 2025 (DWER Ref: DWERDT1178490).
- Northern Star Resources Ltd (2025) *Supporting information for clearing permit application CPS 2404/5*, received 26 May 2025 (DWER Ref: DWERDT1185762).
- Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs* Resource Management Technical Report No. 280. Department of Agriculture.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed August 2025)