GOVERNMENT OF
WESTERN AUSTRALIA

# CLEARING PERMIT

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

| | |
|---|---|
| **Purpose Permit number:** | CPS 3391/3 |
| **Permit Holder:** | Dioro Exploration NL |
| **Duration of Permit:** | From 07 February 2010 to 07 February 2035 |

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

## PART I – CLEARING AUTHORISED

### 1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of mineral exploration, drilling and production.

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

Lot 102 on Deposited Plan 40393, Coolgardie
Lot 103 on Deposited Plan 40395, Londonderry
Lot 104 on Deposited Plan 40394, Londonderry
Lot 141 on Deposited Plan 1240, Karramindie
Lot 142 on Deposited Plan 1240, Karramindie
Lot 143 on Deposited Plan 1240, Karramindie
Lot 144 on Deposited Plan 1240, Karramindie
Lot 145 on Deposited Plan 1240, Karramindie
Lot 146 on Deposited Plan 1240, Karramindie
Lot 147 on Deposited Plan 1240, Karramindie
Lot 148 on Deposited Plan 1240, Karramindie
Lot 149 on Deposited Plan 1240, Karramindie
Lot 150 on Deposited Plan 1240, Karramindie
Lot 151 on Deposited Plan 1240, Karramindie
Lot 152 on Deposited Plan 1240, Karramindie
Lot 153 on Deposited Plan 1240, Karramindie
Lot 154 on Deposited Plan 1240, Karramindie
Lot 155 on Deposited Plan 1240, Karramindie
Lot 156 on Deposited Plan 1240, Karramindie
Lot 157 on Deposited Plan 1240, Karramindie

Lot 158 on Deposited Plan 1240, Karramindie
Lot 159 on Deposited Plan 1240, Karramindie
Lot 161 on Deposited Plan 1095, Karramindie
Lot 162 on Deposited Plan 1095, Karramindie
Lot 163 on Deposited Plan 1095, Karramindie
Lot 164 on Deposited Plan 1095, Karramindie
Lot 165 on Deposited Plan 1095, Karramindie
Lot 166 on Deposited Plan 1095, Karramindie
Lot 167 on Deposited Plan 1095, Karramindie
Lot 168 on Deposited Plan 1095, Karramindie
Lot 169 on Deposited Plan 1095, Karramindie
Lot 170 on Deposited Plan 1095, Karramindie
Lot 171 on Deposited Plan 1095, Karramindie
Lot 172 on Deposited Plan 1095, Karramindie
Lot 50 on Deposited Plan 1621, Karramindie
Lot 61 on Deposited Plan 226332, Karramindie

**3. Clearing authorised**

The permit holder must not clear more than 345 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

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

The permit holder must not clear any *native vegetation* after 07 February 2030.

## PART II – MANAGEMENT CONDITIONS

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

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

(a) avoid the clearing of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of clearing on any environmental value.

**6. Weed management**

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of 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 known 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.

**7. Vegetation management**

(a) where practicable, the permit holder shall avoid clearing *riparian vegetation*; and

(b) where a watercourse is to be impacted by clearing, the permit holder shall maintain the existing surface flow by use of culverts.

**8. Fauna management – habitat trees**

The permit holder shall not clear *habitat trees* found within the area cross hatched yellow in Figure 1 of Schedule 1 unless approved by the *CEO*.

**9. Directional clearing**

The permit holder must:

(a) conduct clearing activities in a slow, progressive manner towards adjacent *native vegetation*; and

(b) allow a reasonable time for fauna present within the area being cleared to move into adjacent *native vegetation* ahead of the clearing activity.

**10. Fauna management – Shield-backed trapdoor spider**

(a) Prior to undertaking any clearing authorised under this Permit, the permit holder shall engage a fauna *specialist* to undertake pre-clearance surveys within the area cross-hatched red in Figure 2 of Schedule 1 of this Permit to identify Shield-backed trapdoor spider species (*Idiosoma* sp.), including burrows;

(b) Prior to undertaking any clearing authorised under this Permit, the permit holder shall provide the results of the fauna survey in a report to the *CEO*.

(c) Where burrows are identified under condition 10(a) of this permit, the permit holder shall;

(i) flag the location of the burrow(s);

(ii) not clear within 50 metres of single Shield-backed trapdoor spider burrow(s), unless approved by the CEO;

(iii) not clear within 200 metres of matriarchal clusters of Shield-backed trapdoor spider burrow(s), unless approved by the CEO;

**11. Fauna management - Malleefowl management**

(a) Prior to undertaking any clearing authorised under this Permit, the permit holder shall engage a *fauna specialist* to inspect the area cross-hatched yellow in Figure 1 of Schedule 1 to identify *Leipoa ocellata* (malleefowl) active mounds.

(b) Where *Leipoa ocellata* (malleefowl) mounds are identified in relation to condition 11(a) of this permit, the permit holder shall ensure that no clearing occurs within 50 metres of the identified *Leipoa ocellata* (malleefowl) mounds, unless approved by the *CEO*.

**12. Revegetation and rehabilitation (temporary works)**

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) *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;

(ii) ripping the ground on the contour to remove soil compaction; and

(iii) laying the vegetative material and topsoil retained under condition 12(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 12(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 12(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 12(c)(ii) of this permit, the permit holder shall repeat condition 12(c)(i) and 12(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 12(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 12(c)(ii), the *CEO* may require the permit holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 12(c)(ii).

## PART III - RECORD KEEPING AND REPORTING

### 13. 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.

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

| No. | Relevant matter | Specifications |
|---|---|---|
| 1. | In relation to the authorised clearing activities generally | (a) the species composition, structure, and density of the cleared area;<br>(b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings;<br>(c) the date that the area was cleared; |

| No. | Relevant matter | Specifications |
|---|---|---|
| | | (d) direction of clearing;<br>(e) the size of the area cleared (in hectares);<br>(f) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5;<br>(g) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 6;<br>(h) actions taken in accordance with condition 7; and<br>(i) actions taken in accordance with condition 8. |
| 2. | In relation to fauna management pursuant to condition 10. | (a) the time (s) and date(s) that the survey was undertaken;<br>(b) the name and qualification of the *fauna specialist* performing the survey;<br>(c) the methodology used to survey the Permit Area and to identify the burrows;<br>(d) the location of *Idiosoma* sp. burrow, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings. |
| 3. | In relation to fauna management pursuant to condition 11. | (a) the time (s) and date(s) that the inspection was undertaken;<br>(b) the name and qualification of the *fauna specialist* performing the inspection;<br>(c) the location of each *Leipoa ocellata* (Malleefowl) mound, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; |
| 4. | In relation to *revegetation*/*rehabilitation* management pursuant to condition 12. | (a) the location of any areas *revegetated* and *rehabilitated,* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA20), expressing the geographical coordinates in Eastings and Northings or decimal degrees;<br>(b) a description of the *revegetation* and *rehabilitation* activities undertaken;<br>(c) the date that the area was *revegetated* and *rehabilitated*;<br>(d) the size of the area *revegetated* and |

| No. | Relevant matter | Specifications |
|---|---|---|
| | | *rehabilitated* (in hectares);<br>(e) the species composition, structure and density of *revegetation* and *rehabilitation*, and<br>(f) a copy of the *environmental specialist's* report. |

**14. 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 13 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 30 June of each year.

(c) The permit holder must provide to the *CEO*, no later than 90 calendar days prior to the expiry date of the permit, a written report of records required under condition 13, where these records have not already been provided under condition 14(a).

## DEFINITIONS

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

**Table 2: Definitions**

| Term | Definition |
|---|---|
| active mound/s | means malleefowl mounds which appear to exhibit characteristics associated with normal nesting/breeding activity. This may include a nest mounded up, litter trails leading to mound, extensive soil and litter disturbance, and/or birds seen actively digging. |
| CEO | Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*. |
| 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. |
| department | means the department established under section 35 of the *Public Sector Management Act 1994* (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; |
| EP Act | *Environmental Protection Act 1986* (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 |

| Term | Definition |
|---|---|
| | experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the *CEO* as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Biodiversity Conservation Act 2016*. |
| fill | means material used to increase the ground level, or to fill a depression. |
| habitat tree | means trees that have a diameter, measured at 150 centimetres from the base of the tree, of 50 centimetres or greater. |
| local provenance | means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same Interim Biogeographic Regionalisation for Australia (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. |
| planting | means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species. |
| regenerate/ed/ion | means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*. |
| rehabilitate/ed/ion | means actively managing an area containing native vegetation in order to improve the ecological function of that area. |
| riparian vegetation | has the meaning given to it in Regulation 3 of the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004.* |
| weeds | means any plant –<br>(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or<br>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or<br>(c) not indigenous to the area concerned. |

**END OF CONDITIONS**

C Robertson
16.09.2025
2.45PM

**Caron Robertson**
**MANAGER**
NATIVE VEGETATION REGULATION

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

16 September 2025

# Schedule 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).

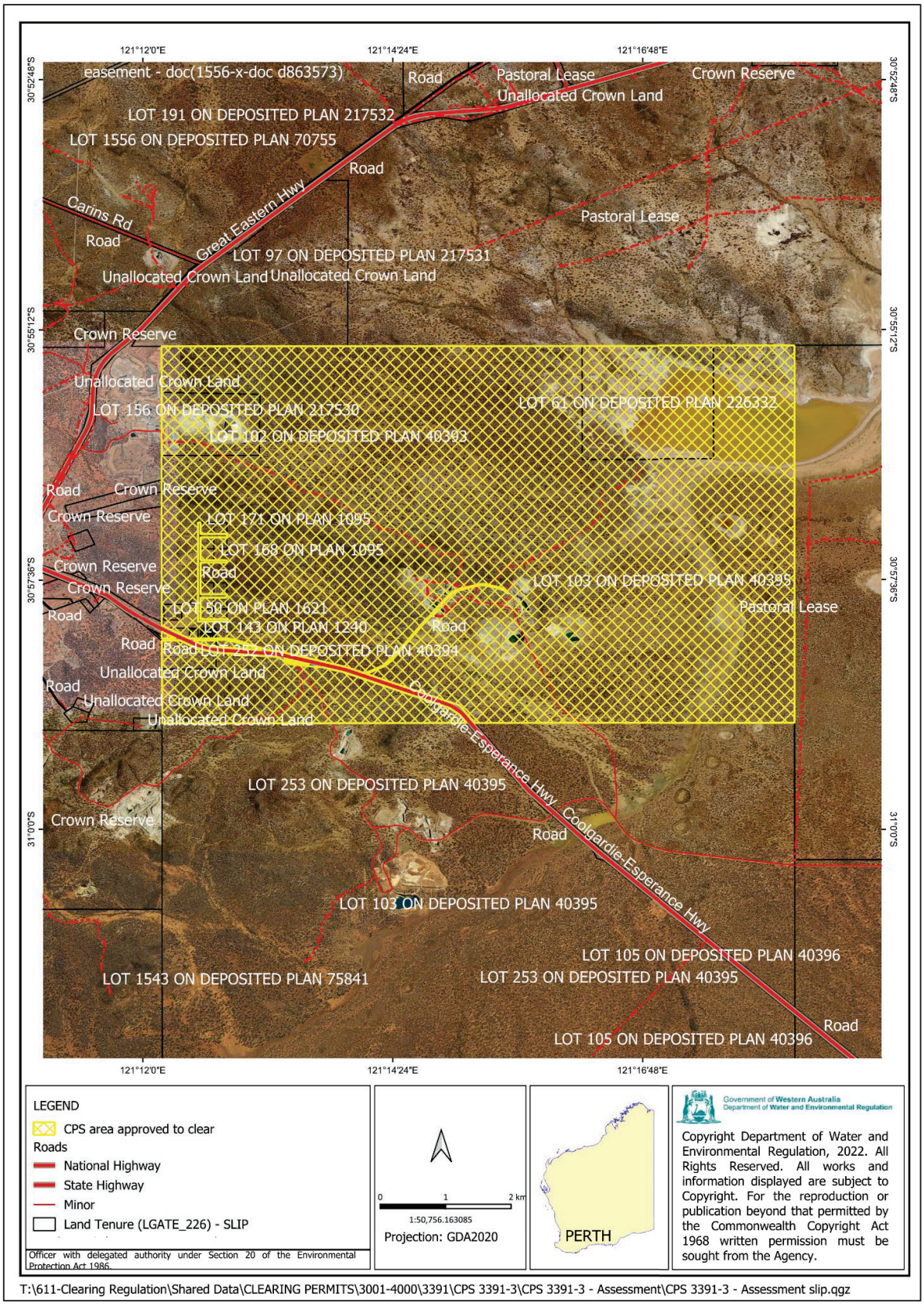


**Figure 1: Map of the boundary of the area within which clearing may occur**

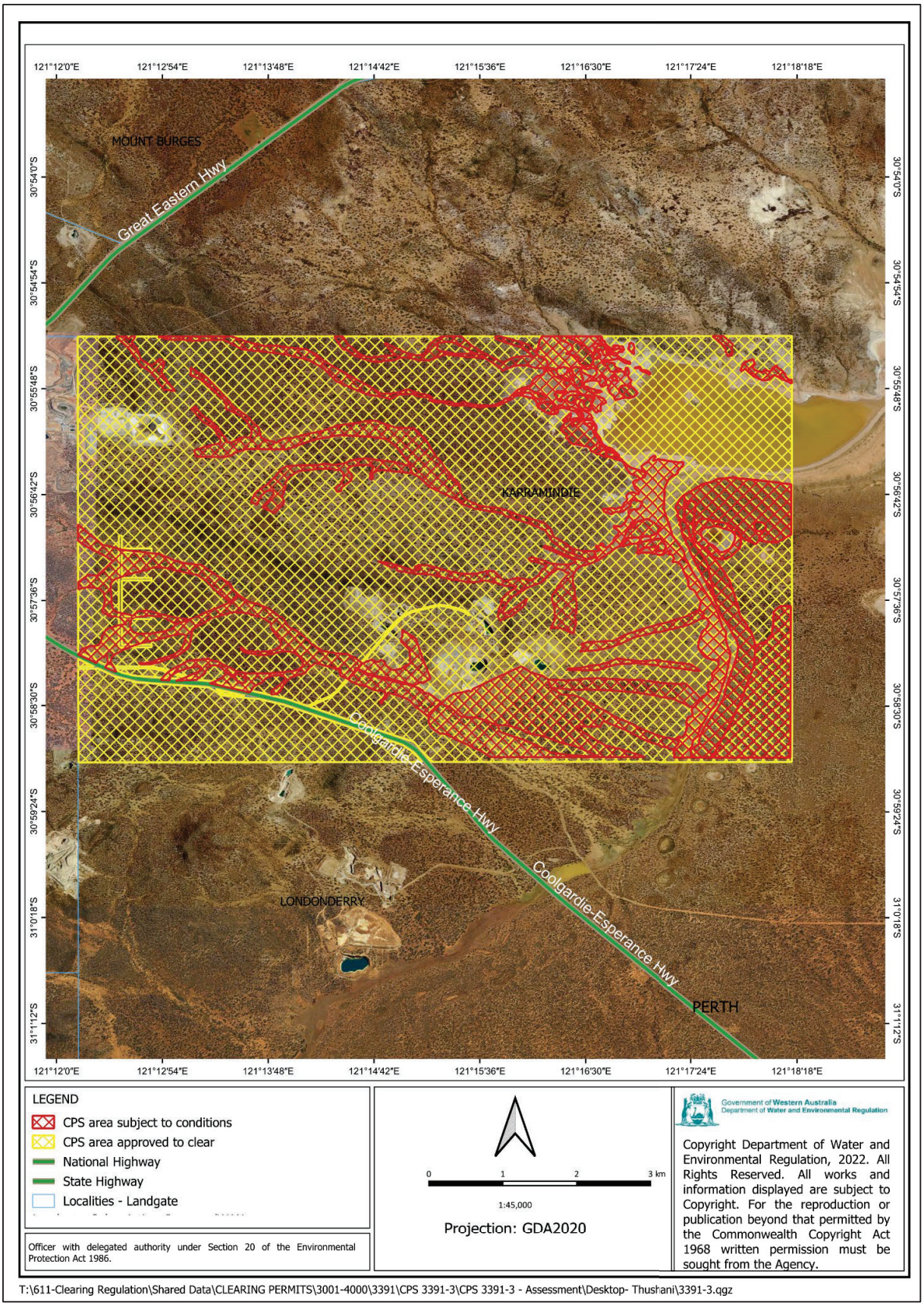


**Figure 2: Map of the boundary of the area subject to conditions.**

Government of Western Australia
Department of Water and Environmental Regulation

# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

| | |
|---|---|
| **Permit number:** | CPS 3391/3 |
| **Permit type:** | Purpose permit |
| **Applicant name:** | Northern Star (South Kalgoorlie) Pty Ltd (Permit holder Dioro Exploration NL) |
| **Application received:** | 10 February 2025 |
| **Application area:** | 345 hectares of native vegetation |
| **Purpose of clearing:** | Mineral production |
| **Method of clearing:** | Mechanical |
| **Property:** | Lot 102 on Deposited Plan 40393, Coolgardie<br>Lot 103 on Deposited Plan 40395, Londonderry<br>Lot 104 on Deposited Plan 40394, Londonderry<br>Lot 141 on Deposited Plan 1240, Karramindie<br>Lot 142 on Deposited Plan 1240, Karramindie<br>Lot 143 on Deposited Plan 1240, Karramindie<br>Lot 144 on Deposited Plan 1240, Karramindie<br>Lot 145 on Deposited Plan 1240, Karramindie<br>Lot 146 on Deposited Plan 1240, Karramindie<br>Lot 147 on Deposited Plan 1240, Karramindie<br>Lot 148 on Deposited Plan 1240, Karramindie<br>Lot 149 on Deposited Plan 1240, Karramindie<br>Lot 150 on Deposited Plan 1240, Karramindie<br>Lot 151 on Deposited Plan 1240, Karramindie<br>Lot 152 on Deposited Plan 1240, Karramindie<br>Lot 153 on Deposited Plan 1240, Karramindie<br>Lot 154 on Deposited Plan 1240, Karramindie<br>Lot 155 on Deposited Plan 1240, Karramindie<br>Lot 156 on Deposited Plan 1240, Karramindie<br>Lot 157 on Deposited Plan 1240, Karramindie<br>Lot 158 on Deposited Plan 1240, Karramindie<br>Lot 159 on Deposited Plan 1240, Karramindie<br>Lot 161 on Deposited Plan 1095, Karramindie<br>Lot 162 on Deposited Plan 1095, Karramindie<br>Lot 163 on Deposited Plan 1095, Karramindie |

| | |
|---|---|
| | Lot 164 on Deposited Plan 1095, Karramindie |
| | Lot 165 on Deposited Plan 1095, Karramindie |
| | Lot 166 on Deposited Plan 1095, Karramindie |
| | Lot 167 on Deposited Plan 1095, Karramindie |
| | Lot 168 on Deposited Plan 1095, Karramindie |
| | Lot 169 on Deposited Plan 1095, Karramindie |
| | Lot 170 on Deposited Plan 1095, Karramindie |
| | Lot 171 on Deposited Plan 1095, Karramindie |
| | Lot 172 on Deposited Plan 1095, Karramindie |
| | Lot 50 on Deposited Plan 1621, Karramindie |
| | Lot 61 on Deposited Plan 226332, Karramindie |
| **Location (LGA area/s):** | Shire of Coolgardie |
| **Localities (suburb/s):** | Coolgardie, Karramindie and Londonderry |

## 1.2. Description of clearing activities

This amendment to CPS 3391/2 seeks to extend the authorised clearing period by five years, now ending on 07 February 2030. Accordingly, the permit duration will also be extended by five years, until 07 February 2035. The proposed extent of the clearing and the purpose for which the clearing is authorised is unchanged, which allowed the clearing of 345 hectares of native vegetation.

The applicant advised that 75 hectares of clearing has been undertaken under CPS 3391/1 and 3391/2, since the commencement of the original permit (Northern Star, 2025).

## 1.3. Decision

| | |
|---|---|
| **Decision:** | Granted |
| **Decision date:** | 16 September 2025 |
| **Decision area:** | 345 hectares 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 (department) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix F.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), findings from the biological report conducted by the Botanical Consulting (2024), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

A review of current environmental databases and updated biological survey information (Biological, 2024) identified that the assessment of impacts to biological values (fauna) has changed since the previous assessment for CPS 3391/2. The application area under amendment comprises the following additional environmental values:

- Potential habitat for conservation significant fauna species including *Idiosoma* sp (shield-backed trapdoor spider), *Jalmenus aridus* (desert hairstreak butterfly), *Nyctophilus major tor* (central long-eared bat), and *Ogyris subterrestris petrina* (arid bronze azure butterfly); and
- the clearing of riparian vegetation growing in association with watercourses and drainage lines.

The remaining environmental values within the permit area remain largely unchanged since the previous assessment and clearing under the proposed amendment will continue to result in:

- the loss of suitable habitat for the *Leipoa ocellata* (malleefowl);
- short-term water quality impacts, such as sedimentation;
- potential land degradation in the form of erosion; and
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

In considering the above, the Delegated Officer considered that the proposed amendment is not likely to lead to an unacceptable risk to environmental values, subject to conditions to:

- avoid, minimise, and reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds,
- avoid clearing riparian vegetation where possible or, where a watercourse is to be impacted by clearing, maintain the existing surface flow by use of culverts,
- engage a fauna specialist to undertake a survey to identify malleefowl mounds and shield-backed trapdoor spider burrows to be flagged and avoided from clearing, along with their relevant buffers;
- ensure no clearing occurs within 50 metres of known locations of shield-backed trapdoor spider burrows and within 200 metres of known locations of matriarchal clusters,
- ensure all habitat trees within the application area are retained,
- undertake slow directional clearing to allow fauna to move into adjacent vegetation ahead of the clearing activity, and
- revegetate cleared areas no longer required for the purpose for which they were cleared with stockpiled vegetative material and topsoil from cleared vegetation and undertake remedial actions if vegetation is not restored to pre-clearing composition, structure and density

Alongside the extension of the permit duration, the Delegated Officer determined that the inclusion of additional conditions such as those relating to protecting riparian vegetation, fauna management, and directional clearing was necessary. Minor amendments to existing conditions were also made to better manage environmental risks and ensure alignment with current departmental policies and procedures.

## 1.5. Site map

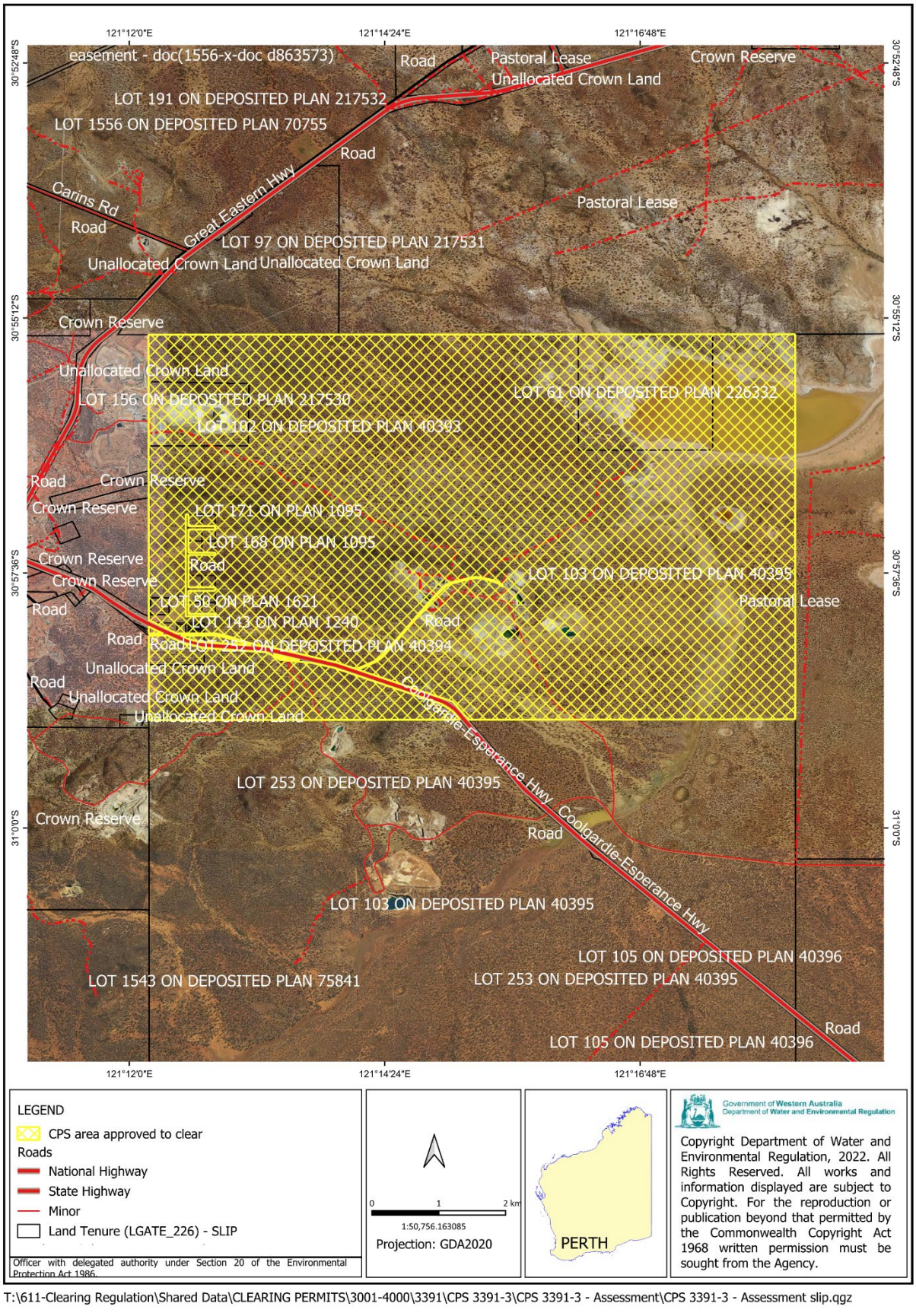


**Figure 1: The area crosshatched yellow indicate the area authorised to be cleared under the granted clearing permit.**

## 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 principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

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

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

No evidence of avoidance or mitigation measures was provided to support the application. However, the department notes that the application to amend the clearing permit does not propose an additional clearing area from that previously authorised under clearing permits CPS 3391/1 and CPS 3391/2.

### 3.2. Assessment of impacts on environmental values

Given the previous assessment of this area was in 2015, the department undertook a re-assessment of the environmental values of this area including a flora and a fauna desktop assessment.

A review of current environmental information (Appendix B and F) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 3391/1 or 3391/2.

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing present a risk to biological values (flora and fauna). The consideration of these impacts, changes from the previous assessments of the permit, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

#### *3.2.1. Biological values (flora) - Clearing Principle (a)*

Assessment

The applicant commissioned Botanica Consulting to conduct a reconnaissance-level flora and vegetation survey to inform the application for the clearing permit. The survey was undertaken across the designated area from 16 to 18 October 2024 (Botanica, 2024). In accordance with the EPA's technical guidance, October is considered a suitable period for conducting flora surveys in this region of Western Australia.

The survey (Botanical, 2024) recorded a total of 226 vascular flora taxa, representing 109 genera across 30 families. Twenty-seven distinct vegetation types were identified, with the community type *CLP-EW1* being the most widespread. Detailed descriptions of these vegetation types are provided in the Reconnaissance Flora/Vegetation and Basic Fauna Assessment (2024).

Based on the survey findings, approximately 92.4 per cent of the survey area was mapped as being in 'Very Good' condition, as defined by Keighery (1994). Areas of disturbance were primarily attributed to historical mining and exploration activities, pastoral land use, the presence of occasional weeds, and vehicle tracks (Botanica, 2024). No conservation significant flora species or significant ecological communities were identified in the survey area (Botanica, 2024). Sixteen introduced taxa (weeds) were recorded within the survey area, none of which are listed as a Declared Pest under the *Biosecurity and Agriculture Management Act 2007.*

According to the desktop assessment, 29 conservation significant flora species were identified from the local area which include one threatened flora species and 28 priority flora species. Of these 73 flora species, 23 species were considered to occur on the same soil and vegetation type as the application area.

The department notes that the flora and vegetation survey has considered all 23 relevant species in its assessment. According to the survey report, six flora species were identified as having the potential to occur within the application area, based on habitat similarities between the site and the known habitat preferences of these species (Botanica, 2024). These species are further considered in the department's assessment below.

- *Eremophila caerulea* subsp. *Merrallii* – Priority 4: The Florabase website indicates that this species is known from 23 recorded populations (some records may overlap) in the local government areas of Bruce Rock, Coolgardie, Kulin and Yilgarn. At many of these locations, over 1000 individuals of this species was recorded. The Florabase website describes this species as a spreading or sprawling shrub growing up to 0.35 metres in height and 0.8 metres wide; flowers are blue-purple in October to December; growing in sand, clay or loam and is associated with undulating plains (WA Herb, 1998-). The nearest record is approximately 6.2 kilometres from the application area. This flora species was listed as having potential to occur in the flora survey however was not identified within the application area at the time of the survey (Botanica, 2024). Based on this, it is highly unlikely that *Eremophila caerulea* subsp. *Merrallii* will occur within the application area. The department notes that this species was also considered in the previous assessment of CPS 3391/1 and CPS 3391/2.

- *Eremophila praecox* – Priority 2: The Florabase website indicates that this species is known from 52 recorded populations (some records may overlap) in the local government areas of Coolgardie and Kalgoorlie-Boulder. At many of these locations, only 1 plant of this species was recorded. The Florabase website describes this species as a broom-like shrub that is 1.5-3 metres in height; flowers are purple in October to December; growing in red/brown sandy loam and is associated with woodland dominated by Eucalyptus spp. or Casuarina spp., over open shrubland of Acacia spp., Eremophila spp., Olearia spp., Rhagodia spp (WA Herb, 1998-). The nearest record is approximately 11.82 kilometres from the application area. This flora species was identified in the survey as having the potential to occur within the application area due to suitable habitat conditions; however, it was not recorded during the field assessment (Botanica, 2024). Based on this, it is highly unlikely that *Eremophila praecox* will occur within the application area. The department notes that this species was also considered in the previous assessments of CPS 3391/1 and CPS 3391/2.

- *Eucalyptus websteriana* subsp. *Norsemanica* – Priority 1: The Florabase website indicates that this species is known from 15 recorded populations (some records may overlap) in the local government areas of Coolgardie and Dundas. The frequency of this species at these locations varies between two plants to over 1500 plants. The Florabase website describes this species as a spreading mallee growing up to three metres height; flowers are yellow in September to November; growing in rocky rises associated with mallee over heath vegetation (WA Herb, 1998-). The nearest record is approximately 12.33 kilometres from the application area. This flora species was identified in the survey as having the potential to occur within the application area due to suitable habitat conditions; however, it was not recorded during the field assessment (Botanica, 2024). Based on this, it is highly unlikely that *Eucalyptus websteriana subsp. Norsemanica* will occur within the application area. The department notes that this species was also considered in the previous assessment of CPS 3391.

- *Goodenia salina* – Priority 2: The Florabase website indicates that this species is known from 14 recorded populations (some records may overlap) in the local government areas of Esperance, Kalgoorlie-Boulder, Kent and Lake Grace. At many of these locations, over 1000 individuals of this species was recorded. The Florabase website describes this species as an annual herb growing up to 0.02-0.2 metred in height; growing in well drained, saline and grey or brown loamy clay. This species is associated with open woodland or scrubland including Eucalyptus spp., Frankenia spp., Disphyma spp., Callitris spp., Halosarcia spp., Austrostipa spp., Rhagodia spp., and halophyte vegetation. The nearest record is approximately 15.21 kilometres from the application area. This flora species was identified in the survey as having the potential to occur within the application area due to suitable habitat conditions; however, it was not recorded during the field assessment (Botanica, 2024). Based on this, it is highly unlikely that *Goodenia salina* will occur within the application area. The department notes that this species was not considered in the previous assessment of CPS 3391/1 and CPS 3391/2 and is a new species that has appeared in the desktop assessment for CPS 3391/3.

- *Notisia intonsa* – Priority 3: The Florabase website indicates that this species is known from 29 recorded populations (some records may overlap) in the local government areas of Coolgardie, Dundas, Kalgoorlie-Boulder, Kondinin, Menzies, Ravensthorpe and Yilgarn. At many of these locations, the frequency of this species of described as either isolated or occasional. The Florabase website describes this species as a prostrate annual herb with white/grey hair and should have been detected if present during the October survey. This species is associated with disturbed area and drainage lines in clay loam plains (WA Herb, 1998-). The

nearest record is approximately 6.79 kilometres from the application area. This flora species was identified in the survey as having the potential to occur within the application area due to suitable habitat conditions; however, it was not recorded during the field assessment (Botanica, 2024). Based on this, it is highly unlikely that *Notisia intonsa* will occur within the application area. The department notes that this species was also considered in the previous assessment of CPS 3391/1 and CPS 3391/2.

- *Thryptomene* sp. *Coolgardie* (E. Kelso s.n. 1902) – Priority 1: The Florabase website indicates that this species is known from 2 recorded populations in the local government area of Coolgardie. Both these records are from 2004 with the closest record 3.98 kilometres from the application area (WA Herb, 1998-). There is very limited information available regarding this species and is a new species that has appeared in the desktop assessment for CPS 3391/3. This flora species was listed as having potential to occur in the flora survey, however, was not identified within the application area at the time of the survey (Botanica, 2024). Based on this, it is highly unlikely that *Thryptomene* sp. *Coolgardie* (E. Kelso s.n. 1902) will occur within the application area.

Conclusion
No conservation significant flora species were recorded from the survey area. Some species are reported as potentially occurring based on there being suitable habitat (quality and extent) within the survey area or immediately adjacent. Noting the above, and in addition to the large extent of native vegetation remaining in the local area and beyond, the proposed clearing is unlikely to have significant impact on the conservation and environmental values of the flora and vegetation in the local and regional areas.

Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the introduction and spread of weeds may be minimised by the implementation of a weed management condition.

Condition
To ensure that no impacts flora that may occur beyond the application area is impacted from the clearing and to protect the adjacent vegetation from weed invasion, the following management measures will be required as conditions on the clearing permit:

- Avoid and minimise the clearing; and
- Implementation of weed management measures

### *3.2.2. Biological values (fauna) - Clearing Principle (b)*

Assessment
Significant fauna species identified by the desktop review were assessed with regards to their distribution and preferred habitat to determine their likelihood of occurrence within the survey area.

Botanica (2024) undertook a basic fauna survey within the designated survey area, conducted concurrently with a reconnaissance-level flora and vegetation assessment from 16 to 18 October 2024. The primary objective of the fauna habitat assessment was to evaluate the potential presence of conservation-significant species within the survey area. Opportunistic fauna observations were recorded throughout the survey. Based on the vegetation types and associated landforms identified during the flora and vegetation survey, twelve broad terrestrial fauna habitats were identified within the survey area (Botanica, 2024). A further description of these fauna habitats are provided within the Reconnaissance Flora/Vegetation and Basic Fauna Assessment (2024). During the fauna survey, central long-eared bat was identified. No other conservation significant species was found within the survey area (Botanica, 2024).

A review of current environmental information (Appendix B) and recent fauna survey undertaken over the application area (Botanica, 2024) indicate that it is likely to provide habitat for the following five conservation significant fauna species:

- *Idiosoma* sp. (shield-backed trapdoor spider) (listed as Priority by DBCA)
- *Jalmenus aridus* (desert hairstreak butterfly) (listed as Priority 1 by DBCA)
- *Leipoa ocellata* (malleefowl) (listed as Vulnerable under the BC Act and EPBC Act)
- *Nyctophilus major tor* (central long-eared bat) (listed as Priority 3 by DBCA)
- *Ogyris subterrestris petrina* (arid bronze azure butterfly) (listed as Critically Endangered under the BC Act and EPBC Act)

**Malleefowl**

A previous assessment of the Clearing Permit CPS 3391/1 and CPS 3391/2 recognised that the application area provides important transitional habitat for local fauna, including the Malleefowl. As a result, pre-clearance surveys and the avoidance of active mounds were included as permit conditions. The 2024 fauna survey conducted by Botanica (2024) did not identify any active Malleefowl mounds within the survey area. Furthermore, the majority of the habitat was deemed unsuitable for Malleefowl breeding due to the low density of leaf litter. No evidence of Malleefowl, in the form of mounds or tracks, was recorded during the survey (Botanica, 2024). According to the desktop assessment, the nearest record is approximately 1.59 kilometres from the application area, with 85 records in the local area. To further protect any Malleefowl that may visit the area, the department has implemented a directional clearing condition under the amendment application. Consequently, the potential impacts to Malleefowl are considered minimal and remain consistent with the findings of previous assessments.

The National Recovery Plan for Malleefowl describes the preferred habitat of this species as 'semi-arid to arid shrublands and low woodlands, especially those dominated by mallee and/or acacias (Benshemesh, 2007). Based on this, the application area does consist of this vegetation habitat typically preferred by Malleefowl. Therefore, it is considered that the species may use the site intermittently. Adjacent vegetation may also offer suitable habitat.

Given the above, the proposed clearing is not expected to impact critical Malleefowl habitat. However, noting this species is listed as critically endangered, and there is still a likelihood of this species using the application area, the department has implemented a pre-clearance condition requiring targeted searches for Malleefowl mounds prior to any clearing activities.

**Shield-backed trapdoor spider**

The desktop assessment identified five records of the Shield-backed trapdoor spider from the local area, with the nearest occurrence located approximately 11.17 kilometres from the application area. This species was not specifically considered during the 2024 fauna survey conducted by Botanica (2024). However, the department notes that the survey did assess whether the fauna habitats within the application area were moderately or well-suited to burrowing species. Based on this assessment, several habitat types within the survey area were determined to offer moderate to high suitability for burrowing fauna and these habitat types are outlined below.

- Drainage Depression: Eucalypt Woodland – 4.04 per cent
- Drainage Depression: Shrubland -13.6 per cent
- Sand Dunes: Woodlands - 2.2 per cent
- Sand Dunes: Shrubland – 0.52 per cent
- Sand Loam Plain: Woodland – 3.84 per cent

Based on the advice received from the Department of Biodiversity, Conservation and Attractions (DBCA), the ecology and current distribution of the Shield-backed trapdoor spider in Western Australia remain poorly understood. A key conservation priority for listed *Idiosoma* species is to minimise adverse impacts from land use activities, particularly mining, at known locations (DBCA, 2023). Given the species' limited dispersal ability, reliance on fragmented habitats, and low reproductive rates, the clearing of burrows and surrounding vegetation is likely to result in the death of individuals and may lead to significant impacts on the population of this species.

The department notes that previous assessments under CPS 3391/1 and CPS 3391/2 did not consider *Idiosoma* species in its assessments. As a result, no specific conditions were included in those permits to mitigate potential impacts on this species. Considering current findings (Botanica, 2024), it is important that areas identified as suitable for burrowing fauna are thoroughly surveyed for trapdoor spider burrows prior to any clearing. Where burrows are identified, a minimum buffer of 50 metres should be maintained, and no clearing should occur within this exclusion zone.

**Desert hairstreak butterfly**

Based on the desktop assessment, this species was identified from 15 locations within the local area, with records as recent as 2023. The closest record was approximately 11.92 kilometres from the application area. Based on the findings from the Botanica survey (2024), The application area provides suitable habitat for the desert hairstreak butterfly noting existing records in the local area and the presence of preferred host plants (*Senna artemisioides* subsp. *filifolia*) within the DD-MW1, DD-EW1, CD-EW1, CLP-EW1, CLP-EW2, CLP-EW5 and RH-MW1 vegetation types (Botanical, 2024). As mentioned above, vegetation description related to these vegetation type codes are provided within the Reconnaissance Flora/Vegetation and Basic Fauna Assessment (2024).

A total of 2,633 hectares of the vegetation type with the host plant occurs within the survey area of 6,396 hectares, which is 41 per cent of the survey area. Of that, the proposed clearing area is 345 hectares, that may include the removal of the host plant. Noting the extent of suitable habitat containing preferred host plants within the survey area, it is not likely that the clearing of up to 345 hectares (13 per cent of available habitat) under the amended permit will result in significant impacts to the species. However, preferred host plants should be avoided from clearing, where possible, to minimise direct impacts.

**Central long-eared bat**
Based on findings from the fauna survey (Biological, 2024), there is potential for the Priority Three Central Long-eared Bat to occur within the application area. Appendix E of the *Kalgoorlie Nickel Smelter – Reconnaissance Flora/Vegetation and Basic Fauna Assessment* lists fauna species identified during the survey, including the Central Long-eared Bat. Desktop data indicates that this species was previously recorded only once in the vicinity, in 1981, approximately 3.63 kilometres from the application area. The Central Long-eared Bat typically roosts in hollows of old trees and beneath loose bark, and its diet consists primarily of moths and beetles. The large to very tall eucalypt trees are the habitat of this species (Australian Museum, 2024).

Based on the photographs and the vegetation descriptions, majority of the application area consisted of mallee woodlands and shrublands (Botanica, 2024). It does not appear that there is a high occurrence of large trees within the application area which can develop hollows. Noting the proposed clearing is within a much larger footprint, the applicant should be able to retain any large habitat trees within the application area. The previous assessments of the application area did not consider this species in its assessment. The implementation of a permit condition requiring the retention of habitat trees will mitigate the risk of significant impact to the central long-eared bat and its habitat.

**Arid bronze azure butterfly (ABAB)**
Based on the desktop assessment, this species was identified from 16 locations with the most recent record in 2023 at approximately 11.05 kilometres from the application area. The survey by Botanica (2024) did not target search for these ant colonies in its assessment (Botanica, 2024).

This species is associated with ant species *Camponotus terebrans* for reproduction, survival of Arid bronze azure butterfly depends on a strong population of these ants. The presence of large colonies of the host ant is the most crucial factor influencing habitat suitability for the ABAB butterfly. As a parasitic species, it relies on a substantial number of host ants for survival, making only large colonies capable of supporting its lifecycle (DBCA, 2020). These ants are found in nests established at the base of mature, smooth-barked eucalypts in the Goldfields and Wheatbelt regions of WA (Botanica, 2024). The implementation of the permit condition requiring the retention of habitat trees will likely mitigate the risk of significant impacts to ABAB, if present within the application area. The department notes that this species was considered in the previous assessments of this area.

Conclusion

Based on the above assessment, the application area supports suitable habitat for several conservation-significant fauna species, including the malleefowl, shield-backed trapdoor spider, desert hairstreak butterfly, central long-eared bat, and arid bronze azure butterfly. As a result, the potential impacts to these species are considered to have changed since the previous assessments documented in the Decision Reports for Clearing Permits 3391/1 and 3391/2.

For the reasons set out above, it is considered that the impacts of the proposed clearing can be managed through the amended and additional permit conditions and will not result in significant residual impacts to these species.

The department also notes that the fauna habitats recorded within the application area are considered to be well represented throughout the region, and the local area retains large amounts of native vegetation (GIS Database). Based on this, the vegetation proposed to be cleared is unlikely to represent significant habitat for fauna in a regional context.

Conditions

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

- Fauna management – requiring all habitat trees within the application area to be retained,
- Directional clearing, requiring the permit holder to undertake slow directional clearing to allow fauna to move into adjacent vegetation ahead of the clearing activity;

- Revegetation and rehabilitation – retain vegetative material and topsoil, requiring the permit holder to revegetate cleared areas no longer required for the purpose for which they were cleared with stockpiled vegetative material and topsoil from cleared vegetation and undertake remedial actions if vegetation is not restored to pre-clearing composition, structure and density;
- Fauna management – pre-clearance survey, requiring the permit holder to engage a fauna specialist to undertake surveys to identify shield-backed trapdoor spider burrows to be flagged and avoided from clearing, along with relevant buffers; and
- Fauna management – malleefowl, requiring the permit holder to engage a fauna specialist to inspect the area for active malleefowl mounds and to ensure no clearing occurs within 50 metres of known locations of active malleefowl mounds.

### *3.2.3. Land and water resources - Clearing Principle (f), (g) and (i)*

Assessment

Previous assessments of the permit identified that the application area intersects several minor perennial watercourses, including Italian Gully, as well as a non-perennial salt lake, which is the Brown Lake located within the area. The drainage from these non-perennial watercourses are received at the Brown Lake. The loamy plan landscape would increase the rate of erosion. The flora and vegetation survey also mapped vegetation groups associated with drainage depression landforms. Consequently, the proposed clearing may affect riparian vegetation linked to these watercourses within the application area**.**

The removal of vegetation along watercourses within the application area has the potential to cause short-term soil erosion, which lead to sediment runoff into Brown Lake. Such disturbances can temporarily alter surface stability and increase the likelihood of sediment being mobilised during rainfall events. However, considering the non-perennial nature of these watercourses, meaning they only flow intermittently and the distance between the application area and the receiving waterbodies, it is unlikely that the proposed clearing will result in significant or lasting impacts on water quality within those waterbodies. The department notes that the Brown lake is also non perennial and therefore significant impact on water quality of this lake is unlikely to occur from the proposed clearing activities.

The existing permit includes a revegetation condition that is considered adequate for mitigating erosion-related impacts resulting from vegetation removal. For watercourses subject to clearing, any effects on water quality are expected to be temporary and will likely diminish as the cleared areas are progressively revegetated in accordance with the permit requirements. To further minimise potential impacts, the applicant is encouraged to avoid the clearing of riparian vegetation wherever practicable.

Conclusion

Based on the above assessment, the proposed clearing may result in the loss of riparian vegetation and an increased risk of land degradation and short-term water quality impacts. However, given the revegetation conditions implemented on the clearing permit, the impact on removing riparian vegetation is not likely to be significant.

The assessment for clearing principal (f) has changed to at variance from maybe at variance as assessed by the previous version of the assessment.

Condition

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

- vegetation management, requiring the permit holder to avoid clearing riparian vegetation where possible or, where a watercourse is to be impacted by clearing, maintain the existing surface flow by use of culverts, and
- retain vegetative material and topsoil, requiring the permit holder to revegetate cleared areas no longer required for the purpose for which they were cleared with stockpiled vegetative material and topsoil from cleared vegetation and undertake remedial actions if vegetation is not restored to pre-clearing composition, structure, and density.

### 3.3. Relevant planning instruments and other matters

The Shire of Coolgardie were invited to comment on the requested amendment to CPS 3391/2. The Shire did not provide a response to this request.

The application area is within the Proclaimed Groundwater Area of Goldfields. The applicant has a current groundwater licence from the Department, that expires in 04 March 2035.

Two 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.

**End**

## Appendix A: Additional information provided by the applicant

| Information | Description |
|---|---|
| Reconnaissance Flora/ Vegetation and Basic Fauna Survey (Botanica, 2024) | Botanica Consulting was commissioned by Northern Star Resources Limited to undertake a reconnaissance flora/ vegetation survey and basic fauna assessment of the application area. The survey area encompasses an area of 6,396 hectares.<br><br>The survey was conducted from the 16th - 18th October 2024. The flora assessment was conducted in accordance with the requirements of a reconnaissance flora survey as defined in *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016). The fauna assessment was conducted in accordance with the requirements of a basic terrestrial fauna survey as defined in Technical Guidance - Terrestrial Fauna Surveys for Environmental Impact Assessment (EPA, 2020). |

## Appendix B: Site characteristics

### B.1. Site characteristics

The information provided below describes the key characteristics of the application area and is based on the best information available to the department at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

| Characteristic | Details |
|---|---|
| Local context | The application area is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by remnant native vegetation.<br><br>Spatial data indicates the local area (20-kilometre radius from the centre of the area proposed to be cleared) retains approximately 98 per cent of the original native vegetation cover. |
| Ecological linkage | No formal linkages are mapped within the clearing footprint. Noting the extent of native vegetation surrounding the application area and in the local area, the application area is unlikely to be significantly contributing to ecological linkage values. |
| Conservation areas | No conservation significant areas are mapped within one kilometre of the application area. The closest conservation area is the Kangaroo Hills Timber Reserve, that is located approximately 4.7 kilometres from the application area. |
| Vegetation description | Vegetation survey (Biological, 2024) indicates the vegetation within the application area consist of 27 vegetation types and an area defined as salt lake and areas that were disturbed of native vegetation. Vegetation descriptions and the extent of the mapped vegetation type within the survey area are provided within the Reconnaissance Flora/Vegetation and Basic Fauna Assessment (2024).<br><br>The broad scale vegetation mapped within the application area are:<br>• Coolgardie vegetation association (9), which is described in the Goldfields as; gimlet, redwood etc. *Eucalyptus salubris*, *E. oleosa*. (Shepherd et al, 2001)<br>• Coolgardie vegetation association (123), which is described as saltbush and/or bluebush with scattered low trees<br><br>The mapped vegetation types retain over 93 per cent of the original extent (Government of Western Australia, 2019). |
| Vegetation condition | Vegetation survey (Biological, 2024) indicates the vegetation within the application area is in Very Good and Disturbed (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix D. |
| Climate and landform | The climate of the Eastern Goldfield subregion is characterised as arid to semi-arid with 200-300 mm of rainfall. |

| Characteristic | Details |
|---|---|
| | Annual average pan evaporation: 2800mm (BoM, 2025) |
| Soil description | The survey area is located within the Norseman zone in the Kalgoorlie province.<br><br>Land systems within the clearing footprint are mapped as (DPIRD, 2019):<br>• 266BB5, described as rocky ranges and hills of greenstones-basic igneous rocks,<br>• 266Mx43, described as gently undulating valley plains and pediments; some outcrop of basic rock,<br>• 266SV15, described as salt lakes and their associated areas. |
| Land degradation risk | Land degradation risk mapping is not available for soil mapping from DPIRD (2025) in the area of the clearing footprint. The soils in the local area are prone to water and wind erosion. Given the low rainfall in the region, and lack of major watercourses or wetlands within the application area, the water erosion risk is minimal. The wind erosion risk is more prominent, particularly on bare soils. |
| Waterbodies | The desktop assessment and aerial imagery indicated that multiple non perennial minor watercourses intercept the application area. A non-perennial Salt Lake named Brown Lake is also present within the application area. Multiple smaller non-perennial lakes are present to the eastern edge of application area. |
| Hydrogeography | Groundwater salinity within the clearing footprint is mapped as saline. (>35,000 Mg/L RDS and a smaller portion mapped as 14,000-35,000 Mg/L TDS).<br><br>The application area is within the Goldfields Groundwater Area proclaimed under the RIWI Act 1914. |
| Flora | According to the desktop assessment, 29 conservation significant flora species were recorded from the local area, comprising 28 priority flora and one threatened flora species. None of these existing records occur within the application area, with the closest record being an occurrence of *Chrysocephalum apiculatum* subsp. *norsemanense* (P3) approximately 3.47 kilometres of the application area.<br><br>In forming a view on the likelihood of these species occurring within the application area, the preferred habitat types of these species and their recorded proximity to the application area were considered, along with the vegetation/soil types and landforms within the application area. 23 priority flora species have been recorded within the same vegetation and soil type as the application area. Of these 23 flora species, taking into consideration the findings of the flora and vegetation report, six priority flora needed further consideration (see Appendix B.2.). |
| Ecological communities | There are no conservation significant ecological communities recorded within the local area. |
| Fauna | According to the desktop assessment, nine conservation significant fauna species are recorded from the local area. This includes two priority, three threatened and four migratory species protected under international agreement. The closest record to the application area is an occurrence of common greenshank and the common sandpiper recorded approximately 0.7 kilometres from the application area.<br><br>Based on the site characteristics outlined above, relevant datasets (see Appendix F.1), the habitat preferences of the aforementioned species, and the findings of the basic fauna survey (Biological, 2024), likely impacts to five conservation significant fauna species required further consideration (see Appendix B.3.). |

## B.2. Flora analysis table

| Species name | Conservation code | Distance of closest record to application area (km) | Suitable vegetation type? [Y/N] | Suitable soil type? [Y/N] | Number of known records (total) | Did surveys identify? [Y, N, N/A] |
|---|---|---|---|---|---|---|
| *Eremophila caerulea* subsp. *merrallii* | 4 | 6.20 | Y | Y | 3 | N |
| *Eremophila praecox* | 2 | 11.82 | Y | Y | 59 | N |
| *Eucalyptus websteriana* subsp. *norsemanica* | 1 | 12.33 | Y | Y | 2 | N |
| *Goodenia salina* | 2 | 15.21 | Y | Y | 1 | N |
| *Notisia intonsa* | 3 | 6.79 | Y | Y | 7 | N |
| *Thryptomene* sp. Coolgardie (E. Kelso s.n. 1902) | 1 | 3.98 | Y | Y | 2 | N |

## B.3. Fauna analysis table

| Species name | Common name | Conservation status | Suitable habitat type? [Y/N] | Distance of closest record to application area (km) | Number of known records (total) | Year of most recent record | Did survey identify? [Y, N, N/A] |
|---|---|---|---|---|---|---|---|
| *Leipoa ocellata* | malleefowl | CR | Y | 11.05 | 26 | 2023 | N |
| *Nyctophilus major tor* | central long-eared bat | P3 | Y | 3.47 | 1 | 1981 | Y |
| *Idiosoma* sp. | Idiosoma sp. | EN or P | Y | 10.90 | 5 | 2021 | N/A |
| *Jalmenus aridus* | inland hairstreak, desert blue butterfly | P1/P2 | Y | 3.46 | 15 | 2023 | N/A |
| *Ogyris subterrestris petrina* | arid bronze azure butterfly | VU | Y | 1.77 | 16 | 2023 | N/A |

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."*<br><br>Assessment:<br><br>The biological survey did not identify any priority or threatened flora within the application area (Biological, 2024). Potential habitat for conservation significant fauna species occurs within the application area, but impacts to individuals and significant habitat will be restricted through permit conditions.<br><br>No priority or threatened ecological communities occurs within the application area. | May be at variance<br><br>(as per CPS 3391/2) | No<br><br>*Refer to sections 3.2.1 and 3.2.2 above* |

| Assessment against the clearing principles | Variance level | Is further consideration required? |
|---|---|---|
| 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."*<br>Assessment:<br>The application area provides suitable habitat for five conservation significant fauna species. During the biological assessment, the central long-eared bat was identified from the survey area. Significant impact to these individuals are unlikely to occur given the permit conditions and the extensive remnant vegetation that is present in the local area. | At variance<br>(changed from CPS 3391/2) | No<br>*Refer to section 3.2.2 above* |
| Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."*<br>Assessment:<br>The area proposed to be cleared is unlikely to contain habitat for flora species listed under the BC Act. | Not likely to be at variance<br>(as per CPS 3391/2) | No |
| Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."*<br>Assessment:<br>The area proposed to be cleared does not contain species that can indicate a threatened ecological community. | Not likely to be at variance<br>(as per CPS 3391/2) | No |
| **Environmental value: significant remnant vegetation and conservation areas** | | |
| Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."*<br>Assessment:<br>The extent of the mapped vegetation type and native vegetation in the local area 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. | Not likely to be at variance<br>(as per CPS 3391/2) | 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."*<br>Assessment:<br>Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of any conservation areas. | Not likely to be at variance<br>(as per CPS 3391/2) | No |
| **Environmental value: land and water resources** | | |
| Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."*<br>Assessment:<br>There are numerous minor non-perennial watercourses, including Italian Gully, and a non-perennial salt lake, Brown Lake, located within the ~6,500 hectare project area as assessed under CPS 3391/1.<br>The proposed clearing may include the removal of riparian vegetation. | At variance<br>(changed from CPS 3391/2) | Yes<br>*Refer to section 3.2.3 above* |

| Assessment against the clearing principles | Variance level | Is further consideration required? |
|---|---|---|
| Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."*<br><br>Assessment:<br><br>As assessed under CPS 3391/1, there is a risk of erosion associated with the removal of native vegetation. To minimise the impacts resulting from the proposed clearing, revegetation management conditions is in place on the permit. | At variance<br><br>(changed from CPS 3391/2) | No<br><br>*Refer to section 3.2.3 above* |
| 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."*<br><br>Assessment:<br><br>As assessed under CPS 3391/1, there is a risk of erosion associated with the removal of native vegetation and numerous minor non perennial watercourses and a salt lake occur within the clearing area. To minimise the impacts resulting from the proposed clearing, revegetation management conditions is in place on the permit. | May be at variance<br><br>(as per CPS 3391/2) | No<br><br>*Refer to section 3.2.3 above* |
| 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."*<br><br>Assessment:<br><br>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. | Not likely to be at variance<br><br>(as per CPS 3391/2) | No |

## Appendix D. Vegetation condition rating scale

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

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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

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

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

## Appendix E. Biological survey information excerpts and photographs of the vegetation (Biological, 2024)

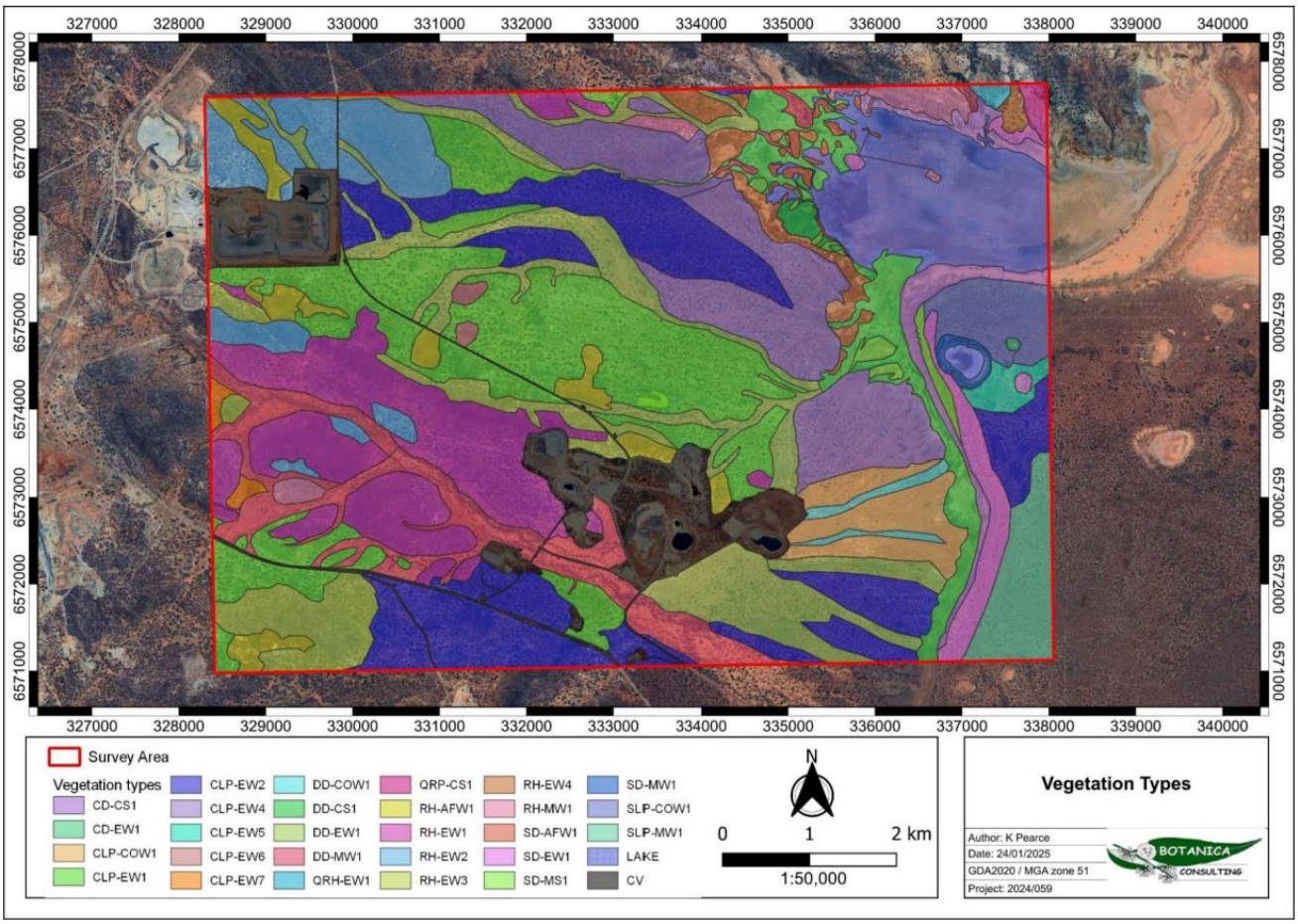


**Figure 2: A map representing the vegetation types within the survey area.**

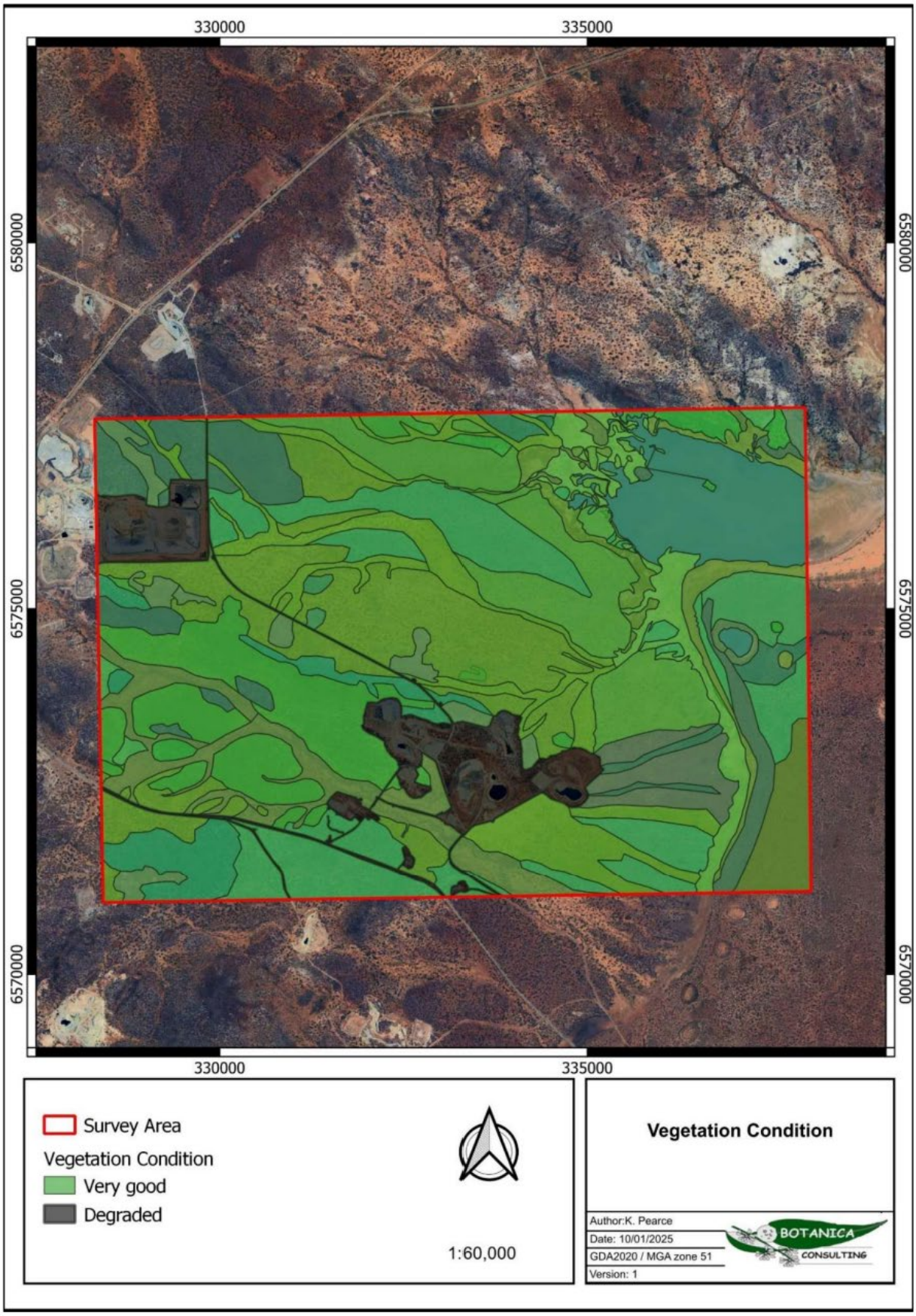


**Figure 3: Vegetation condition within the survey area.**

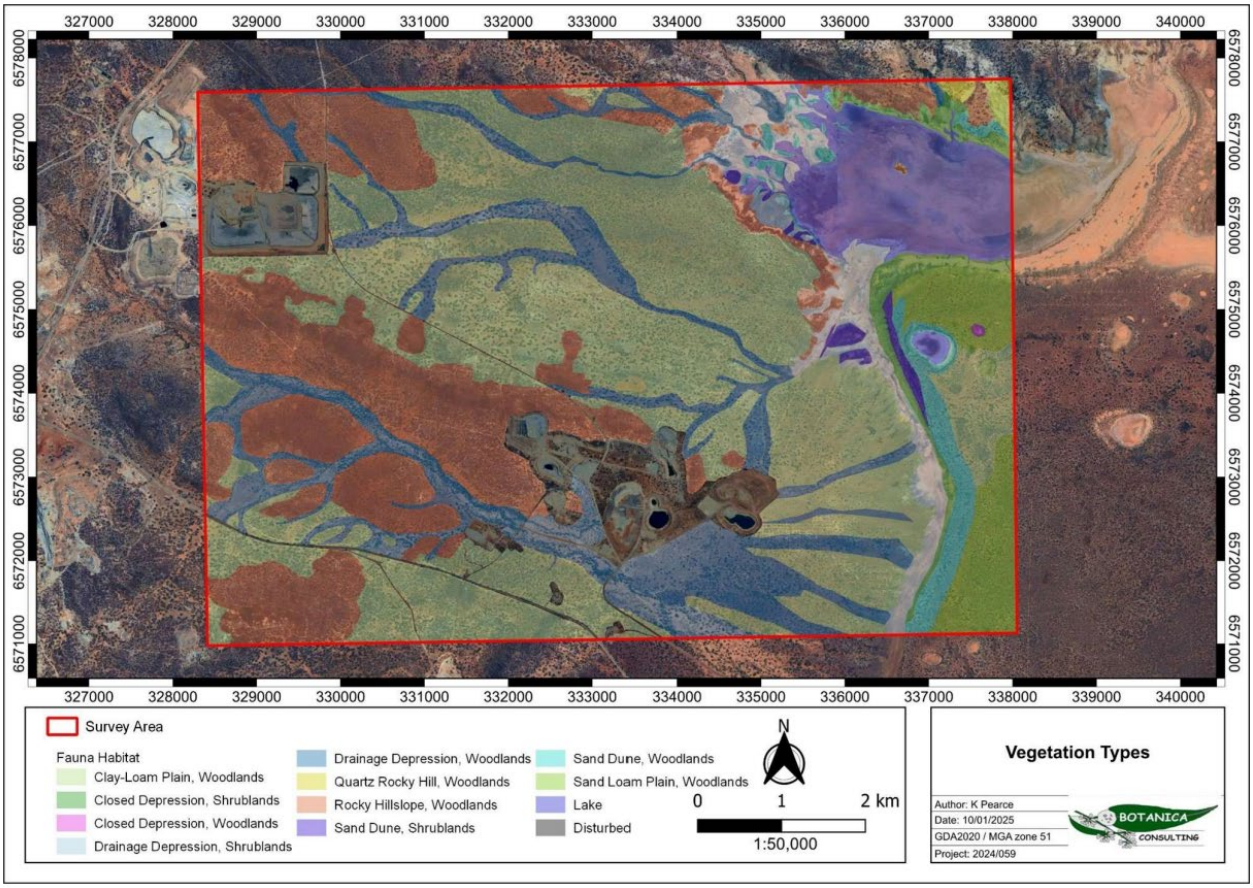


**Figure 4: Fauna habitat types within the survey area.**

# Appendix F. Sources of information

## H.1. GIS databases

Publicly available GIS Databases used (sourced from 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)

## F.2. References

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