



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8232/1
Permit Holder:	Northern Star (HBJ) Pty Ltd
Duration of Permit:	26 September 2019 to 26 September 2029

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.

2. Land on which clearing is to be done

Lot 45 on Plan 226298, Feysville

3. Area of Clearing

The Permit Holder must not clear more than 200 hectares of native vegetation within the area hatched yellow on attached Plan 8232/1.

4. Type of clearing authorised

The Permit Holder shall not clear any native vegetation after 26 September 2024.

5. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II – MANAGEMENT CONDITIONS

6. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in 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.

7. Weed control

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

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

8. Flora management

The Permit Holder shall ensure that no clearing of *critical habitat* for threatened or *priority* flora occurs, unless first approved by the CEO.

9. Fauna management

The Permit Holder shall ensure that no clearing of *critical habitat* for threatened or *priority* fauna occurs, unless first approved by the CEO.

10. Vegetation management

(a) The Permit Holder shall not clear native vegetation within 50 metres of the *riparian vegetation* of any *watercourse*, *drainage line* or *wetland*, except for the purpose of a crossing, unless first approved by the CEO.

(b) Where a *watercourse*, *drainage line* or *wetland* is to be impacted by clearing, the Permit Holder shall ensure that surface flow is maintained, or is reinstated downstream into existing natural drainage lines.

11. 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) at an *optimal time* following clearing authorised under this Permit, *revegetate* and *rehabilitate* the area(s) that are no longer required for mineral exploration by:

(i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;

(ii) laying the vegetative material and topsoil retained under condition 11(a) on the cleared area(s);

(iii) 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

(iv) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.

(c) within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 11(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 11(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 11(c)(ii) of this permit, the Permit Holder shall repeat condition 11(c)(i) and 11(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 11(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 11(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 11(c)(ii).

PART III - RECORD KEEPING AND REPORTING

12. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) 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;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).

- (b) In relation to flora management pursuant to condition 8 of this Permit:
 - (i) the location of *critical habitat* for threatened or priority flora 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;
 - (ii) a description of the species composition, structure and density of any *critical habitat* identified; and
 - (iii) a copy of any *botanist's* report relating to any *critical habitat* identified.

- (c) In relation to fauna management pursuant to condition 9 of this Permit:
 - (i) the location of *critical habitat* for threatened or priority fauna 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;
 - (ii) a description of the species composition, structure and density of any *critical habitat* identified; and
 - (iii) a copy of any fauna specialist's report relating to any *critical habitat* identified.

- (d) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 11 of this Permit:
 - (i) the location of any areas *revegetated* and *rehabilitated*, 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;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares);
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
 - (v) a copy of the environmental specialist's report.

13. Reporting

The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:

- (a) of records required under condition 12 (records to be kept) of this Permit;
- (b) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year;
- (c) 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; and
- (d) prior to 26 June 2029, the Permit Holder must provide to the CEO a written report of records required under condition 12 of this Permit where these records have not already been provided under condition 13(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

critical habitat means any part of the Permit Area comprising of the habitat of flora or fauna species and its population, that is critical for the health and long term survival of the flora or fauna species and its population;

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;

drainage line means a natural depression that carries surface water runoff;

environmental specialist means a person who holds a tertiary qualification in environmental science or equivalent, and has 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 CEO as a suitable environmental specialist.

fauna specialist means a person who holds a tertiary qualification specializing 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 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 fill a hollow;

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;

optimal time means the period from April to May for undertaking *direct seeding*.

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

priority flora means those plant taxa described as priority flora classes 1, 2, 3, 4 or 5 in the Department of Biodiversity Conservation and Attractions *Threatened and Priority Flora List for Western Australia* (as amended);

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;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

riparian vegetation has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

watercourse has the meaning given to it in section 3 of the *Rights in Water and Irrigation Act 1914*;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*;
or
- (b) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

wetland/s means an area of seasonally, intermittently or permanently waterlogged or inundated land, whether natural or otherwise, and includes a lake, swamp, marsh, spring, dampland, tidal flat or estuary.



Ryan Mincham

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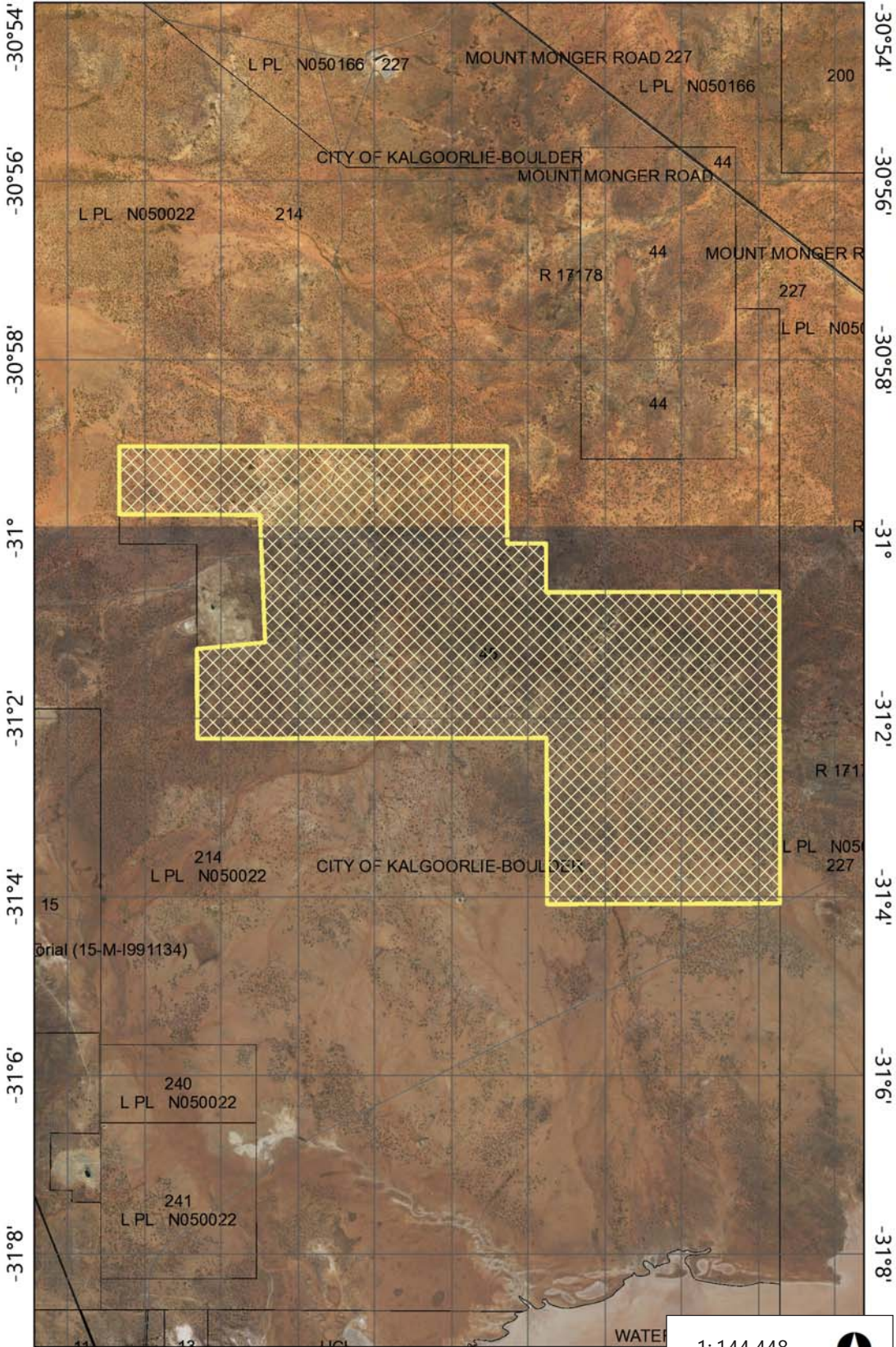
Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

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

27 August 2019



121°39' 121°40' 121°41' 121°42' 121°43' 121°44' 121°45' 121°46' 121°47' 121°48' 121°49'



Legend

- CPS areas approved to clear
- Land Tenure (LGATE_226) - SLII
- Local Government Authorities
- Roads - State Roads
- Roads - Major Roads
- Roads - Minor Roads

121°39' 121°40' 121°41' 121°42' 121°43' 121°44' 121°45' 121°46' 121°47' 121°48' 121°49'

1: 144,448



3.7 0 1.83 3.7 Kilometers



WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

Notes

R. Mincham
Ryan Mincham
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Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Author: R Mincham

Recipient:



1. Application details

1.1. Permit application details

Permit application No.: 8232/1
Permit type: Purpose

1.2. Applicant details

Applicant's name: Northern Star (HBJ) Pty Ltd
Application received date: 26 October 2018

1.3. Property details

Property: Lot 45 on Plan 226298, Feysville
Local Government Authority: City of Kalgoorlie - Boulder
Localities: Feysville

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
200		Mechanical	Mineral Exploration

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 27 August 2019

Reasons for Decision: The clearing permit application was received on 26 October 2018 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that clearing of the application area is at variance to clearing principle (f), may be at variance to clearing principles (a) and (b), not at variance to principle (e) and is not likely to be at variance to the remaining clearing principles.

In determining to grant a clearing permit subject to conditions, the Delegated Officer considered that the environmental impacts of the proposed clearing can be managed through onsite avoidance and mitigation measures.

2. Site Information

Clearing Description The application is to clear 200 hectares of native vegetation within Lot 45 on Deposited Plan 226298, Feysville, for the purpose of mineral exploration (figure 1).

Vegetation Description A flora survey of Lot 45, undertaken by GHD (2018) identified seven vegetation associations within the application area:

- *Eucalyptus salmonophloia*, *E. lesouefii* and *E. transcontinentalis* open woodland over Chenopodiaceae open shrubland (VT01);
- Occasional *Eucalyptus salmonophloia* with *E. lesouefii*, *E. oleosa subsp. oleosa* and *E. torquata* woodland over *Eremophila* spp. shrubland (VT02);
- Mosaic *Eucalyptus* spp. woodland (VT03);
- *Eucalyptus salmonophloia* and *E. griffithsii* open woodland over a tall sparse shrubland (VT04);
- *Eucalyptus oleosa subsp. oleosa* and *E. griffithsii* woodland over *Triodia* sp. Open hummock grassland (VT05);
- *Eucalyptus salmonophloia*, *E. stricklandii* and *E. celastroides subsp. celastroides* over variable open shrubland (VT06); and
- Variable shrubland/herbland (VT07).

Vegetation Condition Vegetation condition within this assessment has been assessed using the vegetation condition scale developed by Keighery (1994). All references to vegetation condition throughout this assessment therefore, reference this scale.

The flora survey of Lot 45, undertaken by GHD (2018) mapped the vegetation in an excellent to good condition, described as;

- Excellent - Vegetation structure intact; disturbance affecting individual species; weeds are non-aggressive species.
- 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 frequent fires; the presence of some very aggressive weeds at high density; partial clearing; dieback; grazing.

Local area The local area is defined as 20 kilometres from the edge of the application area (Figure 2).

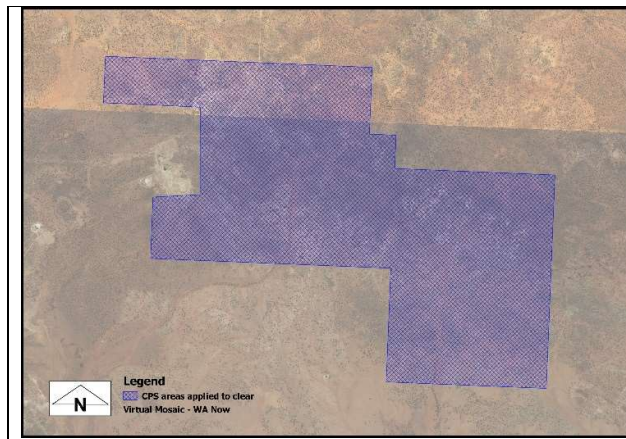


Figure 1: CPS 8232/1 application area

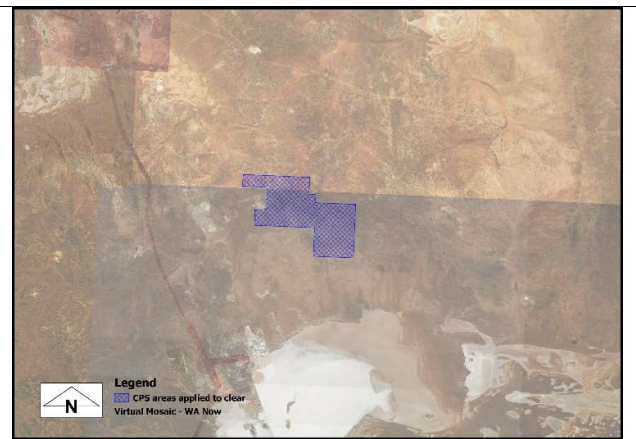


Figure 2: CPS 8232/1 Application area - context

1. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Proposed clearing may be at variance to this Principle

As assessed within Principle (e), the local area is highly vegetated retaining approximately 99 per cent native vegetation. A flora and fauna assessment undertaken by GHD (2018) determined that the vegetation under application is consistent with surrounding vegetation.

No threatened flora have been recorded within the local area or within a 20 kilometre radius of the application area. No threatened (TEC) or priority (PEC) ecological communities have been recorded within the local area. The flora survey of Lot 45 (GHD, 2018) did not identify any threatened flora or vegetation consistent with a TEC or PEC. Given this, the application area is not likely to contain these environmental values.

No flora species listed as Priority by the Department of Biodiversity Conservation and Attractions (DBCA) have been mapped within the local area. The flora survey of Lot 45 (GHD, 2018) did not identify any Priority flora however, a likelihood of occurrence assessment (GHD, 2018) determined that three Priority 1 species, *Eremophila arachnoides* subsp. *tenera*, *Calandrinia lefroyensis* *Obbens* and *Cyathostemon divaricatus*, may occur within the application area.

Eremophila arachnoides subsp. *tenera* is known from two records (Western Australian Herbarium (1998-). One record is of a single individual and the other is listed as infrequent. As the habitat types for these records are present within the application area, the species may be present within the application area. Given the limited records of this species, an occurrence within the application area may be significant.

Calandrinia lefroyensis *Obbens* is known from five records, with a majority associated with saline flats (Western Australian Herbarium (1998-). As this habitat type has not been recorded within the application area, it is not likely to be impacted by the proposed clearing.

Cyathostemon divaricatus is known from six records with a majority associated with rocky hill tops/slopes (Western Australian Herbarium (1998-). As this habitat type has been recorded within the application area (GHD, 2018), it may be impacted by the proposed clearing. Given the limited records of this species, an occurrence within the application area may be significant.

As assessed within Principle (b), the proposed clearing may contain habitat for the Malleefowl (*Leipoa ocellata*), listed as threatened under the *Biodiversity Conservation Act 2018*, within the Wildlife Conservation (Specially Protected Fauna) Notice 2018. As suitable habitat for this species is present within the application area and the species is known from the local area, it may be impacted by the proposed clearing. If breeding within the application area, impacts to this species may be significant.

As the proposed clearing area may contain Priority 1 flora species and Malleefowl breeding habitat, the proposed clearing may be at variance to this 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 indigenous to Western Australia.

Proposed clearing may be at variance to this Principle

Two conservation significant fauna species have been recorded within 20 kilometres of the application area; Chuditch (*Dasyurus geoffroii*) and Malleefowl (*Leipoa ocellata*). Both of these species are listed as threatened under the *Biodiversity Conservation Act 2018*, within the Wildlife Conservation (Specially Protected Fauna) Notice 2018.

GHD (2018) undertook a fauna assessment of the application area. It was determined that:

- seven broad habitat types were identified within the survey area;
- no habitat type recorded was considered to be exclusive to the survey area;
- the habitat within the survey area is well connected to the habitat in surrounding areas and the broader region;

- no conservation significant fauna were recorded within the survey area during the field survey; and
- a likelihood of occurrence assessment determined that one conservation significant fauna species is likely to occur within the survey area, that being the Malleefowl.

Chuditch occur within the South West of Western Australia. The record within the local area is an outlier, with no recent records within the local area. Given this, the species is not likely to be present within the application area or impacted by the proposed clearing.

Malleefowl generally occurs in semi-arid areas of Western Australia's South West. They nest in a large mound of sand or soil and organic matter, prefer vegetation with a dense understorey of shrubs and their breeding habitat is characterised by light soil and an abundant leaf litter, which is used in the construction of nesting mounds. Density of the canopy cover is an important feature associated with high breeding densities, with grazed areas generally having much lower densities. In the WA Wheatbelt, Malleefowl distribution is associated with landscapes with lower rainfall, greater amounts of mallee and shrubland that occur as large remnants, and lighter soil surface textures. As suitable habitat for this species is present within the application area and the species is known from the local area, it may be impacted by the proposed clearing. If breeding within the application area, impacts to this species may be significant. Conditioning a clearing permit to ensure that no critical habitat (including nests) is impacted by the proposed clearing is likely to limit the potential impact to this species.

Given the above, the proposed clearing may be at variance to this Principle. Malleefowl management conditions are likely to minimise the risk to this species.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Proposed clearing is not likely to be at variance to this Principle

No threatened flora have been recorded within the local area or within a 20 kilometre radius of the application area. A flora survey of Lot 45, undertaken by GHD (2018) did not identify any threatened flora.

Given the above, the proposed clearing is not likely to be at variance to this 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.

Proposed clearing is not likely to be at variance to this Principle

No State TEC's have been recorded within the local area. The closest known TEC is Federally listed Mount Belches *Acacia quadrimarginea* / *Ptilotus obovatus* (banded ironstone formation) which occurs 35 kilometres from the application area. This TEC is listed as a priority 3 ecological community at a State level.

A flora survey of Lot 45, undertaken by GHD (2018) did not identify any vegetation consistent with a State listed TEC.

Given the above, the proposed clearing is not likely to be at variance to this 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.

Proposed clearing is not at variance to this Principle

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The mapped Interim Biogeographic Region of Australia (IBRA) bioregion, Coolgardie, retains 97.7 per cent native vegetation. Mapped Beard vegetation associations, 9 and 468, retain 97.8 per cent and 98.6 per cent native vegetation within the Coolgardie IBRA Bioregion respectively. The local area retains approximately 99 per cent native vegetation. As the mapped vegetation associations and the local area occur significantly above the 30 per cent threshold, the proposed clearing does not occur within a highly cleared landscape.

Given the above, the proposed clearing is not at variance to this Principle.

Table 1: Vegetation extents.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Coolgardie	12,912,204.4	12,648,491.4	97.7	16.7
Beard Vegetation Association in Bioregion*				
9	240,442.0	235,101.0	97.8	8.1
468	583,357.7	575,360.6	98.6	22.7

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Proposed clearing is at variance this Principle

Minor non-perennial watercourses are mapped within the application area. Each of these originates within or in close proximity to the application area. GHD (2018) assessed the vegetation along the minor watercourses and determined it to be consistent with vegetation type 4 *Eucalyptus salmonophloia* and *E.griffithsii* open woodland over a tall sparse shrubland. The flora taxa recorded within VT04 was not considered to contain wetland or dampland species (GHD, 2018).

Creeklines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (Kern, 1995). Given the lack of identified riparian vegetation, the mapped watercourses are likely to represent these minor creeklines.

Although minor in nature, the proposed clearing includes vegetation growing in association with a watercourse and is at variance to this Principle. Watercourse management conditions are likely to minimise the impacts to watercourses.

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Proposed clearing is not likely to be at variance to this Principle

The application area is mapped within the following rangeland soil systems:

- Gumland Land System - Extensive pedepains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys;
- Gundockerta Land System - Extensive, gently undulating calcareous stony plains supporting bluebush shrublands.
- Graves Land System - Basalt and greenstone rises and low hills supporting eucalypt woodlands with prominent saltbush and bluebush understoreys;
- Moriarty Land System - Low greenstone rises and stony plains supporting chenopod shrublands with patchy eucalypt overstoreys; and
- Bevon Land System - Irregular low ironstone hills with stony lower slopes supporting mulga shrublands.

Minor non-perennial watercourses are mapped within the application area. Each of these originates within or in close proximity to the application area. Rainfall is mapped as 300 millimetres per year with an evapotranspiration rate of 300 millimetres per year.

As assessed within Principle (f), creeklines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. No significant watercourses or wetlands are present within the application area.

The proposed clearing is for mineral exploration and therefore it is unlikely that the clearing will leave large areas of exposed soils. Given the above, the proposed clearing is not likely to be at variance to this Principle.

Further, the applicant has agreed to revegetate temporarily cleared areas reducing any potential impacts associated with land degradation from the exposure of soils through vegetation clearing.

(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.

Proposed clearing is not likely to be at variance to this Principle

No Department of Biodiversity Conservation and Attractions managed reserves have been recorded within the local area. The closest unmanaged reserve occurs 5.5 kilometres from the application area. Given this and the extent of vegetation within the local area, the proposed clearing is not likely to be at variance to this 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.

Proposed clearing is not likely to be at variance to this Principle

As assessed within Principle (e), the local area is extensively vegetated retaining approximately 99 per cent native vegetation. As assessed within Principle (f), creeklines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. No significant watercourses or wetlands are present within the application area.

Given the extent of native vegetation within the local area, the proposed clearing is not likely to deteriorate the quality of underground water.

Given the minor nature of the watercourses within the application area, the proposed clearing is not likely to impact on the quality of surface water.

Given the above, the proposed clearing is not likely to be at variance to this clearing Principle.

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Proposed clearing is not likely to be a variance to this Principle

As assessed within Principles (e), (f) and (g), the local area is extensively vegetated retaining approximately 99 per cent native vegetation, creeklines in the region are dry for most of the year only flowing briefly immediately following significant rainfall, no significant watercourses or wetlands are present within the application area and rainfall within the region is low at 300 millimetres per year.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Planning instruments and other relevant matters.

No Aboriginal sites of significance have been mapped within the application area.

The clearing permit application was advertised on the DWER website on 30 November 2018 with a 21 day submission period. One submission has been received in relation to this application. Concerns raised relate to potential limitations of the flora and fauna survey submitted including:

- A lack of information on invertebrate fauna species;
- The timing of the surveys;
- A lack of information on the impact the loss of habitat trees may have within the local area;
- The potential impact to Priority flora species; and
- A lack of fauna data and assessment against the clearing principles.

The concerns raised have been addressed through the assessment against the clearing Principles. It is noted that the assessment against the clearing Principles determined that the proposed clearing is at variance to clearing principle (f), may be at variance to Principles (a) and (b) and is not, or is not likely to be at variance to the remaining clearing principles.

The applicant amended the clearing permit application during assessment to be for the purpose of mineral exploration only.

2. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Government of Western Australia (2018) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of February 2018. WA Department of Parks and Wildlife, Perth.
- GHD (2018) West Gold Location 45 Flora and Fauna Assessment, May 2018. DWER ref:A1732917.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Kern, A.M. (1995) Hydrogeology of the Kalgoorlie 1:250 000 Sheet. Geological Survey of Western Australia, 1:250 000 Hydrogeological Series Explanatory Notes, 16p, Western Australia.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed February 2019).

GIS Database List

- SAC Bio datasets (February 2019)
- Hydrography, linear
- Aboriginal Sites of Significance
- RIWI Areas
- Hydrography, linear
- Groundwater Salinity
- Pre-European vegetation
- DPaW Estate
- Soils, statewide
- Salinity Risk