



GOVERNMENT OF  
WESTERN AUSTRALIA

## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 5255/1
<b>Permit Holder:</b>	Hamersley Iron Pty Ltd
<b>Duration of Permit:</b>	15 March 2013 – 30 September 2023

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 geotechnical investigations, sterilisation drilling, environmental and heritage studies.

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

Unallocated Crown land (Chichester, PIN 1017624)  
Unallocated Crown land (Chichester, PIN 1180830)  
Unallocated Crown land (Chichester, PIN 1017626)  
Unallocated Crown land (Mount Sheila, PIN 1016569)  
Road Reserve (Chichester, PIN 11732082)  
Lot 9 on Plan 47815 (Chichester)  
Lot 100 on Plan 47815 (Chichester)  
Lot 83 on Plan 238012 (Chichester)  
Lot 82 on Plan 220191 (Chichester)  
Lot 116 on Plan 220191 (Chichester)  
Lot 206 on Plan 221014 (Chichester)  
Lot 114 on Plan 220376 (Nanutarra Mulga Downs)

**3. Area of Clearing**

The Permit Holder must not clear more than 250 hectares of native vegetation within the area hatched yellow on attached Plan 5255/1.

**4. 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.

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

The Permit Holder shall not clear any native vegetation after 15 March 2018.

**6. Type of clearing authorised**

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the, *Land Administration Act 1997* or any other written law.

**7. Compliance with Assessment Sequence and Management Procedures**

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

**PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES**

**8. Avoid, minimise etc 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:

- (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.

**9. 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*:

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

**10. 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 within 12 months following clearing authorised under this permit, *revegetate* and *rehabilitate* areas no longer required for the purpose for which they were cleared under this Permit, by:
  - (i) ripping the ground on the contour to remove soil compaction; and
  - (ii) laying the vegetative material and topsoil retained under condition 10(a) on the cleared area(s).
- (c) Within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 10(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 10(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 10(c)(ii) of this permit, the Permit Holder shall repeat condition 10(c)(i) and 10(c)(ii) within 24 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 10(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 10(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 10(c)(ii).

#### **11. Vegetation management**

- (a) Where practicable the Permit Holder shall avoid clearing riparian vegetation.
- (b) Where a watercourse is to be impacted by clearing, the Permit Holder shall maintain the existing surface flow by use of culverts.

#### **12. Fauna management**

- (a) Prior to undertaking any clearing authorised under this Permit, the areas shall be inspected by a *fauna specialist* who shall identify habitat suitable to be utilised by fauna species listed below:
  - (i) Western Pebble-mound Mouse (*Pseudomys chapmani*);
  - (ii) Rainbow Bee-eater (*Merops ornatus*);
- (b) Prior to clearing, any habitat identified by condition 12(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in condition 12(a).
- (c) Where fauna are identified in relation to condition 12(b) of this Permit, the Permit Holder shall ensure that:
  - (i) no clearing of the identified habitat occurs, unless first approved by the CEO
  - (ii) no clearing occurs within 50 metres of the identified habitat unless first approved by the CEO.

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

#### **13. 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 the *revegetation* and *rehabilitation* of areas pursuant to condition 10 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.

- (c) In relation to fauna management pursuant to condition 12 of this Permit:
  - (i) the location of each habitat identified 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) the species name of fauna reasonably likely to utilise, or that have been observed utilising, the habitat; and
  - (iii) a copy of the fauna 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 and 31 December of the previous calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January and 31 December of the previous 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) Prior to 30 June 2023, the Permit Holder must provide to the CEO a written report of records required under condition 13 of this Permit where these records have not already been provided under condition 14(a) of this Permit.

#### **DEFINITIONS**

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

*botanist* means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora;

*direct seeding* means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

*environmental specialist* means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, 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;

*fauna specialist* means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

*fill* means material used to increase the ground level, or fill a hollow;

*impacts* means any impact of clearing on environmental values;

*local provenance* means native vegetation seeds and propagating material from natural sources within 100 kilometres 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;

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

**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 *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 declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*; or
- (b) published in the Department of Environment and Conservation Regional Weed Assessments, 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.

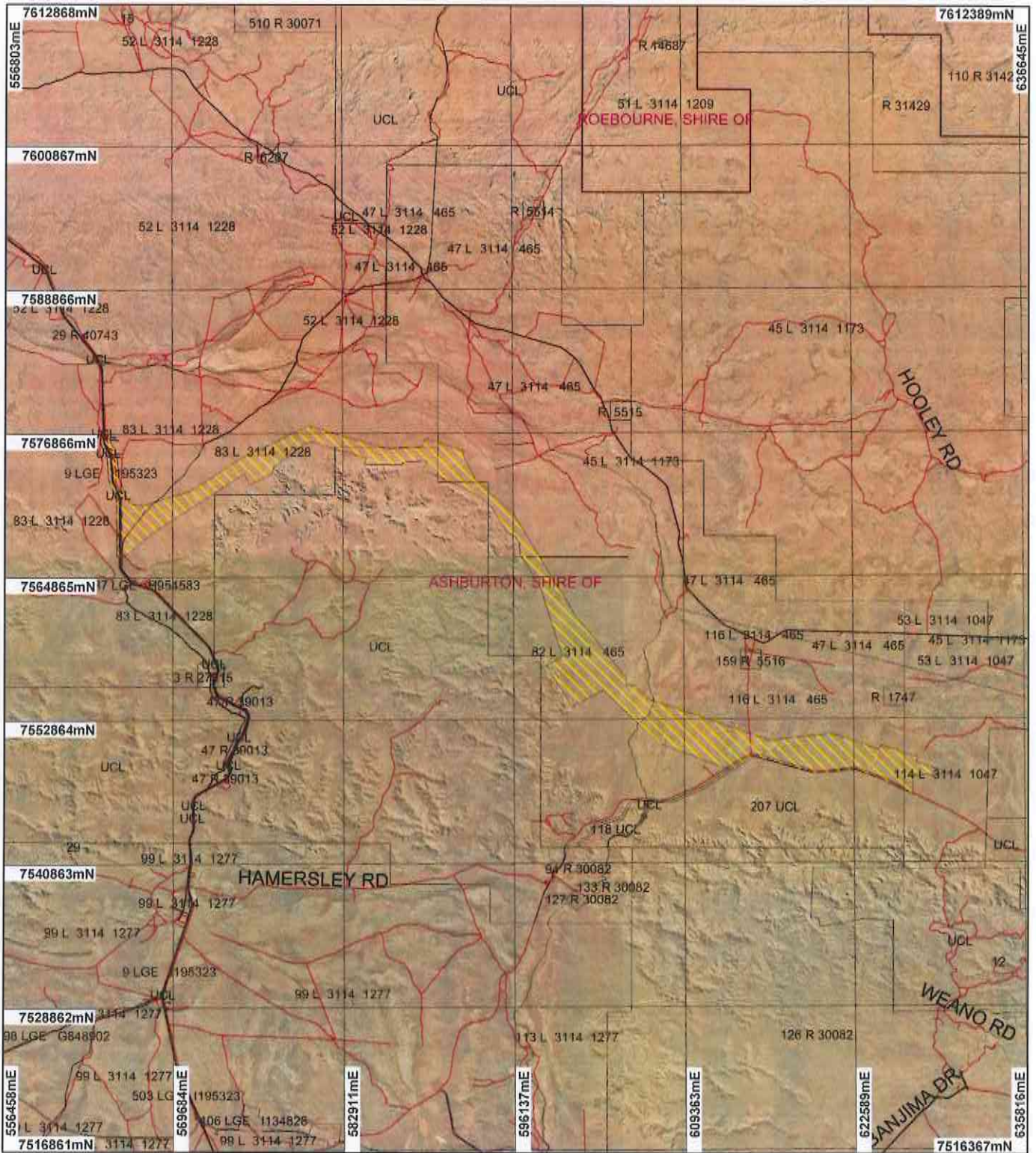


M Warnock  
A/MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

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

21 February 2013

# Plan 5255/1



## LEGEND

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li> Road Centrelines</li> <li> Local Government Authorities</li> <li> Clearing Instruments</li> <li> Areas Approved to Clear</li> </ul> | <p><b>Cadastral Labelling</b></p> <ul style="list-style-type: none"> <li>Wittenoom 50cm Orthomosaic - Landgate 2004</li> <li>Merae 50cm Orthomosaic - Landgate 2004</li> </ul> | <ul style="list-style-type: none"> <li>Hooley 1.4m Orthomosaic - Landgate 2000</li> <li>Mount Billroth 1.4m Orthomosaic - Landgate 2000</li> </ul> |
|---|--|--|



Scale 1:440833  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

*M Warnock* Date 21/3/13

M Warnock  
Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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\* Project Data. This data has not been quality assured. Please contact map author for details.



## 1. Application details

### 1.1. Permit application details

Permit application No.: 5255/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

### 1.3. Property details

Property:  
 LOT 83 ON PLAN 238012 ( CHICHESTER 6751)  
 LOT 9 ON PLAN 47815 ( CHICHESTER 6751)  
 UNALLOCATED CROWN LAND ( CHICHESTER 6751)  
 LOT 100 ON PLAN 47815 ( CHICHESTER 6751)  
 ROAD RESERVE ( CHICHESTER 6751)  
 UNALLOCATED CROWN LAND ( MOUNT SHEILA 6751)  
 LOT 82 ON PLAN 220191 ( CHICHESTER 6751)  
 LOT 116 ON PLAN 220191 ( CHICHESTER 6751)  
 LOT 206 ON PLAN 221014 ( CHICHESTER 6751)  
 LOT 207 ON PLAN 221014 ( CHICHESTER 6751)  
 LOT 114 ON PLAN 220376 (Lot No. 114 NANUTARRA MULGA DOWNS 6751)

Local Government Area: Shire of Ashburton  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
250		Mechanical Removal	Geotechnical investigations

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 21 February 2013

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Four Beard vegetation associations have been mapped within the application area (Shepherd et. Al. 2001):	The application proposes to clear 250 hectares of native vegetation within a footprint area of 16,808 hectares. The clearing is for the purpose of geotechnical investigation and sterilization drilling for a proposed railway infrastructure project, servicing a new iron ore mine.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The description and condition of the vegetation under application were determined through a flora and vegetation survey conducted by Biota Environmental Sciences (Biota, 2012b).
82: Hummock grasslands, low tree steppe; snappy gum over Triodia wiseana.		To	
175: Short bunch grassland - savanna/grass plain (Pilbara).		Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	
644: Hummock grasslands, open low tree steppe; mulga & snakewood over soft spinifex & T. basedowii.	Within the larger footprint area 49 vegetation sub-associations were identified, associated with three broad landscape categories: foothills, hill slopes and hill crests; plains and floodplains; and drainage lines, gullies and gorges (Biota, 2012b).		
645: Hummock grasslands, shrub steppe; kanji & snakewood over soft spinifex & T. wiseana.			

### 3. Assessment of application against clearing principles

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

##### Comments

##### **Proposal is not likely to be at variance to this Principle**

The application is to clear 250 hectares of native vegetation within a larger footprint of 16,808 hectares for the purpose of geotechnical investigation, exploration, sterilisation drilling as well as environmental and heritage studies. Cleared areas will be progressively rehabilitated once they are no longer required for the purpose for which they were cleared (Hamersley Iron, 2012).

A fauna survey conducted by Biota Environmental (2012a) found the fauna utilising the application area to be representative of the local area, which has above 99 per cent of its pre-European vegetation remaining (Government of Western Australia, 2011). One threatened species, the Northern Quoll (*Dasyurus hallucatus*) was recorded within the application area and potentially uses the area for foraging and dispersal. Priority fauna species also identified within the application area include *Pseudomys chapmani* (Western Pebble Mound Mouse) and *Merops ornatus* (Rainbow Bee-eater) (Biota Environmental 2012a).

A flora survey undertaken by Biota Environmental (2012b) identified 45 vegetation types and 469 flora species within the application area. No rare flora were recorded however, two priority flora species (Priority Three species *Rostellularia* sp and Priority Four species *Ptilotus* sp.) as well as a number of species with potential conservation interest (Biota Environmental, 2012b) were noted. Both species are also distributed outside of the application area. Biota Environmental (2012b) found no vegetation communities consistent with any priority ecological communities or threatened ecological communities.

The proposed clearing may impact on priority fauna habitat and may be at variance to this Principle. However, given the highly vegetated local area, it is not considered likely that the proposed clearing will limit the dispersal of fauna through the landscape.

##### Methodology

##### References:

- Biota Environmental (2012a)
- Biota Environmental (2012b)
- Hamersley Iron (2012)

##### GIS Datasets:

- SAC Biodatasets Accessed October 2012
- Pre European Vegetation (2007)

#### (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.

##### Comments

##### **Proposal is not likely to be at variance to this Principle**

A fauna survey identified 42 fauna habitat types within the application area (Biota Environmental, 2012a). None of the habitats identified are confined to the application area and all are common within the Hamersley and Fortescue subregions (Biota Environmental, 2012a).

The survey within and adjoining the application area also identified 166 fauna species, 7 of which are classified as conservation significant (Biota 2012a).

- The Northern Quoll (*Dasyurus hallucatus*), listed as endangered under the Wildlife Conservation Act, 1950 (WC Act) and Environmental Protection and Biodiversity Conservation Act, 1999 (EPBC Act).
- Peregrine Falcon (*Falco peregrinus*), listed as schedule 4 under the WC Act, 1950 and vulnerable under the EPBC Act, 1999.
- Australian Bustard (*Ardeotis australis*) listed as priority 4 under the WC Act, 1950.
- Grey Falcon (*Falco hypoleucos*) listed as priority 4 under the WC Act, 1950.
- Western Pebble-mound Mouse (*Pseudomys chapmani*) listed as priority 4 under the WC Act, 1950.
- Rainbow Bee-eater (*Merops ornatus*) listed as schedule 4 under the WC Act, 1950 and migratory under the EPBC Act, 1999.
- Fork Tailed Swift (*Apus pacificus*) listed as schedule 3 under the WC Act, 1950 and migratory under the EPBC Act, 1999.

The Northern quoll's preferred habitat includes steep rocky gorges and hills. It is considered that this species utilises the adjoining plains and vegetated areas present within the application area for foraging and dispersal, however, core habitat (rocky gorges and hills) does not occur within the application area (Biota Environmental, 2012a).

The Rainbow Bee Eater (*Merops ornatus*) was recorded at 9 locations throughout the application area, this species excavates small holes within the soil for nesting and therefore, nest sites could potentially be removed by clearing activities.

Western Pebble-mound Mouse (*Pseudomys chapmani*) mounds were recorded from three locations within the application area; the clearing under application may therefore impact on habitat for this species.



The Peregrine Falcon, Australian Bustard, Grey Falcon and Fork tailed swift are not considered likely to be affected by the proposed clearing due to their ability to relocate from affected areas.

The area under application is within a highly vegetation local area (20km radius) with 99 percent of its pre-European vegetation remaining (Government of Western Australia, 2011). It is considered for the habitat found within the application area to also occur, and in similar condition, in the surrounding area.

Given the highly vegetated local area, it is not considered likely that the proposed clearing will limit the dispersal of fauna through the landscape.

Although there is a large extent of vegetation remaining in the local area the application may impact on habitat for conservation significant fauna and therefore, may be at variance to this principle. Fauna management conditions will reduce the impact on threatened fauna.

**Methodology**

**References:**

- Biota Environmental (2012a)
- DEC (2007-)
- Government of Western Australia (2011)

**GIS Datasets:**

- Hydrology, linear (2006)
- Intrim Biogeographic Regionisation of Australia (2004)
- Topographic Contours, statewide
- Pre-European Vegetation (2007)

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

**Comments**

**Proposal is not likely to be at variance to this Principle**

No rare flora has been recorded within 20 km radius of the proposed clearing.

Biota Environmental Science conducted a level two flora survey within the application area. The resulting report (Biota Environmental, 2012b) recorded no rare flora within the application area.

Given the distance to the nearest known rare flora from the study area and that no rare flora were identified during targeted surveys (Biota Environmental, 2012b), clearing within the application area is not considered likely to impact on rare flora and therefore, the application is not likely to be at variance to this principle.

**Methodology**

**References:**

- Biota Environmental (2012b)

**GIS Datasets:**

- SAC Biodatasets Accessed October 2012

**(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.**

**Comments**

**Proposal is not likely to be at variance to this Principle**

The closest known threatened ecological community (TEC) is located 16 kilometres from the application area within a different vegetation community and soil type. During a vegetation survey undertaken by Biota Environmental (2012b) 45 vegetation units were recorded, none of which are comprised of a similar species composition to TEC's.

Given this the application is not likely to be at variance to this principle.

**Methodology**

**References:**

- Biota Environmental (2012b)

**GIS Datasets:**

- SAC Biodatasets Accessed October 2012

**(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.**

**Comments Proposal is not likely to be at variance to this Principle**

The application falls within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA bioregion), the Shire of Ashburton and within Beard vegetation associations 82, 175, 644 and 645 (Government of Western Australia, 2011). Given that all mapped vegetation types have above 99 percent of their pre- European vegetation cover remaining (Government of Western Australia, 2011), the application area is not likely to be considered a remnant in a highly cleared landscape and is therefore not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent Remaining (ha)	(%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Pilbara	17,804,427	17,729,352	99	8
Shire*				
Shire of Ashburton	10,086,658	10,059,963	99	16
Beard Vegetation Association in Bioregion*				
82	2,563,583	2,550,899	99	10
175	507,032	506,625	99	5
644	27,199	27,068	99	0
645	84,670	84,658	99	0

\* Government of Western Australia, 2011

**Methodology**

**References:**

- Government of Western Australia, (2011)

**GIS Datasets:**

- Intrim Biogeographic Regionisation of Australia (2004)
- NLWR, Current Extent of Native Vegetation (2011)
- Pre-European Vegetation (2007)

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

**Comments Proposal is at variance to this Principle**

The application area is crossed by numerous seasonal, minor water courses and the Fortescue River South Branch. The Fortescue River also runs parallel to and within 1.2 metres of the application area. A flora survey undertaken by Biota Environmental (2012b) revealed two vegetation associations (D17 and D18), associated with major ephemeral watercourses.

The Fortescue River to the east of the application area also forms the Fortescue Marshes which is classified as an ANCA wetland (A directory of important wetlands in Australia) as it contains significant vegetation communities and species at the limit of their range (Environment Australia, 2012).

Given this the application area may include vegetation growing in association of water courses and wetlands and therefore, is at variance to this principle. An exclusion of clearing within 30 metres of watercourses and wetlands will ensure that affects to the environmental values of these areas are minimised.

**Methodology**

**References:**

- Biota Environmental (2012b)
- Environment Australia (2012)

**GIS Datasets:**

- SAC Biodatasets Accessed October 2012
- Directory of Important Wetlands Spatial Database
- Hydrology, linear (2006)

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

**Comments Proposal is not likely to be at variance to this Principle**

The application is to clear 250 hectares of native vegetation within a larger footprint of 16,808 hectares for the purpose of geotechnical investigation, exploration, sterilisation drilling as well as environmental and heritage studies. Cleared areas will be progressively rehabilitated once a site is no longer used (Hamersley Iron, 2012).

As the clearing will be spread over a large area and progressively rehabilitated, it is not likely that the application will cause appreciable land degradation and therefore, is not likely to be at variance to this principle.

**Methodology** References:  
- Hamersley Iron (2012)

GIS Database:  
- Rainfall, Mean Annual  
- Soils, Statewide

**(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.**

**Comments Proposal may be at variance to this Principle**

The application area lies adjacent to the ex Mt Florence part pastoral lease which, in 2000, was identified by the government for 2015 for addition to the conservation reserve system and Karijini National Park. This area is currently vested with the Department of Environment and Conservation (DEC). The boundary of Karijini National Park is currently located five kilometres from the application area.

The proposed clearing may increase the spread of weeds into the adjacent proposed DEC managed land and therefore, the application may be at variance to this principle. Weed hygiene management practices will limit this risk.

**Methodology** GIS Datasets:  
- SAC Biodatasets Accessed October 2012  
- DEC Tenure

**(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.**

**Comments Proposal may be at variance to this Principle**

The groundwater salinity within the application area is approximately 500-1,000 milligrams/Litre Total Dissolved Solids (TDS) (GIS Database).

The Department of Water (2012) states that the clearing application and associated land uses are unlikely to have an impact on the quality or quantity of groundwater.

The application area is crossed by numerous seasonal, minor water courses and the Fortescue River South Branch. Clearing of riparian vegetation around these drainage lines may impact surface water quality due to increased sedimentation and runoff.

The application therefore, may be at variance to this principle. An exclusion of clearing within 30 metres of watercourses and wetlands will ensure that affects to the environmental values of these areas are minimised.

**Methodology** References:  
- Department of Water (2012)

GIS Datasets:  
- SAC Biodatasets Accessed October 2012

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

**Comments Proposal is not likely to be at variance to this Principle**

The application is to clear 250 hectares of native vegetation within a larger footprint of 16,943 hectares and cleared areas will be progressively rehabilitated once a site is no longer used (Hamersley Iron, 2012). Natural flood events do occur in the Pilbara region following cyclonic activity however, the proposed clearing is not expected to increase the incidence or intensity of such events.

As the clearing will be spread over a large area it is not likely the application will cause or exacerbate the intensity of flooding, the application therefore is not likely to be at variance to principle (j).

**Methodology**    **References:**  
- Hamersley Iron (2012)

### **Planning instrument, Native Title, Previous EPA decision or other matter.**

#### **Comments**

The application proposes to clear 250 ha of native vegetation within a footprint area of 16,808 hectares. The clearing is for the purpose of geotechnical investigation and sterilization drilling for a proposed railway infrastructure project, servicing a new iron ore mine, under consideration by the Environmental Protection Authority.

A letter from the Department of Regional Development and Lands (RDL) has been received and confirms that they are proceeding with a section 91 licence under the Lands Administration Act, 1997 (RDL, 2013).

The Office of the Environmental Protection Authority has advised that the works are classified Investigative and therefore no EPA consent is required (OEPA, 2012).

Rio Tinto in the name of Hamersley Iron Pty Ltd has made an application for a s.91 licence under the Land Administration Act 1997 (LAA) for the purpose of undertaking geotechnical, heritage and environmental investigations within the application area. This application is still under review.

The application area falls within the Millstream Water Reserve, Public Drinking Water Source Area and the Pilbara Groundwater and Surface Water areas under the Rights in Water and Irrigation Act, 1914. The Department of Water (Department of Water, 2012) is satisfied that the proposed clearing of 250 ha for the purpose of geotechnical investigations and sterilization drilling is unlikely to have a significant impact on the quality or quantity of ground water provided DoW guidelines and advice is followed.

A groundwater extraction licence from the DoW has been applied for, any interference with the bed or banks of a watercourse within this area will require a permit from the DoW (Department of Water, 2012). No application has currently been applied for.

Notification letters were sent to the Yamatji Marlpa Aboriginal Corporation pursuant to the Native Title Act 1993. No response has been received.

The application area is currently zoned as rural, with a small portion falling within an existing railway transport corridor.

**Methodology**    **References:**  
- Department of Water (2012)  
- OEPA (2012)  
- RDL (2013)

**GIS Datasets:**  
- SAC Biodatasets Accessed October 2012

### **4. References**

Biota Environmental Services (2012a) Koodaideri Western Rail Corridor: Flora Survey. Unpublished Report prepared for Rio Tinto Iron Ore (DEC Ref: A557954) Biota Environmental Services (2012b) Koodaideri Western Rail Corridor: Fauna Survey. Unpublished Report prepared for Rio Tinto Iron Ore (DEC Ref: A557954)

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## 5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)