



## 1. Application details

### 1.1. Permit application details

Permit application No.: 567/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

### 1.3. Property details

Property: AML70/4  
Local Government Area: Shire Of Ashburton  
Colloquial name: AML 70/4 Tom Price Iron Ore Mine

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
8.5		Mechanical Removal	Mineral Production

## 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
Beard Vegetation Association 82 - Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> (Hopkins et al, 2001).	Part of the application area is located over the Tom Price mine operation and has been greatly disturbed by previous exploration tracks, pits and rehabilitation sites (Hamersley Iron, 2003).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The description of the vegetation under application was obtained from a survey report performed by staff at Hamersley Iron (DoE Ref: TRIM KNI729) and aerial photographs of the application area provided by the proponent in the Permit Application.
Beard Vegetation Association 567 - Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & <i>T. basedowii</i> (Hopkins et al, 2001).	The survey performed by Hamersley Iron (2005) covered an area that extended beyond the area proposed to be cleared. The results of this survey were used to determine the location of the three waste dump sites.		

## 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 vegetation of the area comprises hummock grasslands and a shrub and low tree storey (Hopkins et al, 2001). There are no Environmentally Sensitive Areas present within or in close proximity to the application area. An area survey performed by Hamersley Iron (2003) identified 39 family, 70 genus and 139 species of flora in an area that extended beyond that proposed to be cleared. The results of this survey influenced the decision for the location of the three waste dump sites. Part of the application area is located over the Tom Price mine operation, so a large proportion of the area is greatly disturbed by previous exploration tracks, pits and rehabilitation sites (Hamersley Iron, 2003). Given the level of disturbance from mining activities, and the relatively small area of 8.5ha proposed to be cleared from the total area surveyed, it is unlikely the clearing of the vegetation will be at variance to this principle.

**Methodology** Hopkins et al (2001);  
Hamersley Iron (2003);  
GIS Database: Environmentally Sensitive Areas - DOE 22/10/04

**(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**

Species known to occur within a 50km radius:

Peregrine Falcon - *Falco peregrinus*

Western Pebble-mound Mouse (Ngadji) - *Pseudomys chapmanii* - P4,

Lakeland Downs Mouse (Kerakenga) - *Leggadina lakedownensis* - P4,

Australian Bustard - *Ardeotis australis* - P4 (CALM, 2005).

A Rock Wallaby and two Pebble Mound Mice were recorded in the survey of the Tom Price Marra Mamba South area by Hamersley Iron (2003), however they were not located within the three areas proposed for clearing.

There are limited CALM fauna records that relate to the area under assessment. No evidence or discussion accompanied the proponent's application to indicate whether any fauna surveys have been undertaken in the area that is proposed to be cleared. However, aerial imagery provided by the proponent indicates that past and present mining activities have significantly impacted fauna habitat in the immediate vicinity of the proposed clearing. Due to these factors CALM is unable to provide comprehensive fauna advice, however based on the limited information available, the area appears to be unlikely to support significant habitat for fauna populations and therefore the proposal is not likely to be at variance with this Principle (CALM, 2005).

**Methodology** Hamersley Iron (2003);  
CALM Advice (2005)

**(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**

Hamersley Iron (2003) Tom Price Marra Mamba South Rare Flora Survey, undertaken by Hamersley Iron Environmental Department, February 2003. This botanical survey identified no Declared Rare Flora within the area proposed to be cleared. It did however identify the following priority flora taxa from the vicinity but not within the area that is proposed to be cleared. *Eremophila magnifica* \*, *Eucalyptus pilbarensis*\*\* , *Indigofera ixocarpa* (P2), *Triumfetta leptacantha* (P3), and a possible fifth priority species *Olearia mucronata* (P2) \*\*\*.

\*There are two priority *Eremophila magnifica* sub-species known from this region ie *Eremophila magnifica* subsp. *magnifica* ms (P4), and *Eremophila magnifica* subsp. *velutina* ms (P3). The referenced document does not distinguish which of these taxa it is referring to.

\*\**Eucalyptus pilbarensis*, also known as *Eucalyptus pilbarensis* - Brooker & Edgecombe, is not currently listed as a priority taxon.

\*\*\**Olearia mucronata* - Identification unconfirmed (CALM, 2005).

The botanical survey advice supplied by the proponent stated that No Declared Rare flora were located within the area that is proposed to be cleared. CALM has no records of declared rare flora taxa in the vicinity of the proposed clearing (CALM, 2005).

The proponent states the following in the submitted application form C1 'A survey for Declared Rare Flora (DRF) and Priority flora was conducted in 2003 over one of the permit application areas (see copy of survey report) with no DRF or Priority flora species being identified.' This statement is not entirely accurate. The proponent supplied a flora survey that details the presence of up to four priority taxa in the survey area, however close examination shows that these occurrences are not within the proposed clearing area CPS 567/1 (CALM, 2005).

Based on the aforementioned survey results, CALM advises that the proposal is not likely to be at variance to this Principle.

**Methodology** CALM Advice (2005)  
Hamersley Iron (2003);  
GIS Database: Declared Rare and Priority Flora List - CALM 13/08/04

**(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**

No known Threatened Ecological Community occurrences have been recorded in the local area.

**Methodology** GIS Database: Threatened Ecological Communities - CALM 15/7/03

**(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 State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment, 2002).

reserves/CALM-	Pre-European area (ha) *	Current extent (ha) *	Remaining %*	Conservation Status**	% in managed land
IBRA Bioregion - Pilbara	17,944,694	17,944,694	~100%	Least concern	15.17
Shire of Ashburton	No information available				
Beard vegetation associations					
- 567	848,590	848,590	~100%	Least concern	22.5
- 82	2,920,910	2,920,910	~100%	Least concern	10.1

\* Shepherd et al. (2001)

\*\* Department of Natural Resources and Environment (2002)

Vegetation complexes within this application are above 30% representation. The vegetation of the site is a component of Beard Vegetation Associations 82 and 567 (Hopkins et al, 2001), of which there is ~100% of the pre-European extent of both associations still remaining (Shepherd et al, 2001). The vegetation type is therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment, 2002).

**Methodology** Hopkins et al (2001);  
Shepherd et al (2001);  
Department of Natural Resources and Environment (2002);  
GIS Database: Pre-European Extent - DA 01/01

**(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 not likely to be at variance to this Principle**

The vegetation to be cleared is not associated with a wetland or watercourse.

**Methodology** GIS Databases:  
-Hydrography, linear - DOE 1/2/04  
-ANCA Wetlands - CALM 08/01

**(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 area proposed to be cleared has already been disturbed by mining activities such as old exploration tracks, pits and rehabilitation sites (Hamersley Iron, 2003). The method of vegetation clearing is by blade down mechanical removal which, due to the disturbance of the soil, may result in increased land degradation risks. Given the small area proposed for disturbance, the clearing is unlikely to represent a significant land degradation risk.

**Methodology** Hamersley Iron (2003);  
Permit Application

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

Karijini National Park is located 16km to the east, however the proposed clearing is situated within an existing mining operation, which is unlikely to cause an appreciable additional impact on this conservation area (CALM, 2005).

**Methodology** CALM Advice (2005);  
GIS Database: CALM Managed Lands and Waters - 1/06/04

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

The proposed clearing area is not in a Public Drinking Water Source Area and is unlikely to provide a major input to the recharge of groundwater. The small area to be cleared, 8.5 hectares, is unlikely to have a significant

impact on surface water quality.

**Methodology** GIS Databases:  
-Public Drinking Water Source Areas (PDWSA's) - DOE 29/11/04  
-Hydrographic Catchments - Catchments - DOE 3/4/03  
-Hydrography, linear - DOE 1/2/04

**(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**  
Flooding occurs seasonally over the December to March period, where flood height and duration are lengthy and extreme. The clearing of 8.5 hectares of vegetation is unlikely to increase these naturally occurring flood events.

**Methodology** GIS Database: Rainfall, Mean Annual - BOM 30/09/01

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

**Comments**

The vegetation to be cleared is within Mineral Lease AML 70/4 granted in accordance with the Iron Ore (Hamersley Range) Agreement Act 1963 and the Mining Act 1904.

No objections have been received in relation to the clearing of native vegetation in the area under application.

The area under application has a Native Title Claim over it by the Eastern Guruma peoples (WC97\_089). However the Mineral Lease has been granted, therefore the granting of a clearing permit is not a future act under the Native Title Act 1993.

The proposed clearing occurs in an area that is covered by the following Registered Indigenous Heritage Sites - Tom Price Artefact Scatter (ID 17721), Tom Price South-West 03 (ID 17260) and Tom Price (ID 11344). It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Sites of Aboriginal Significance are damaged through the clearing process.

This application is not at variance to the Environmental Protection Authority's advice given under Section 48A(a) (CRN 104411).

The Tom Price Iron Ore Mine AML 70/4 has a current operating licence L49/72 granted in accordance with the Environmental Protection Act 1986. The proposed clearing is not at variance to this licence.

The Tom Price Iron Ore Mine AML 70/4 has a current water licence (GWL158490) for the purpose of dust suppression, granted in accordance with the Rights in Water and Irrigation Act 1914. If the proposed clearing or intended land use of waste dumps requires additional water for dust suppression, or any other purpose, this water licence must be amended, or a new licence must be granted.

No Works Approval is required for the intended land use of waste dumps.

**Methodology** GIS Database:  
-Native Title Claims - DLI 19/12/04  
-Aboriginal Sites of Significance - DIA 04/07/02  
-Environmental Impact Assessments, Polygon Features - DOE 29/11/04  
Environmental Protection Authority (1996) CRN 104411

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Production	Mechanical Removal	8.5	Grant	Assessable criteria have been addressed and no objections were raised. The Assessing Officer therefore recommends that the permit should be granted.

**5. References**

CALM Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref KNI1000.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales ; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

Hamersley Iron Pty Ltd (2003) Tom Price Marra Mamba South Rare Flora Survey. Unpublished Document. Department of Environment Reference: TRIM KNI729

Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1.

CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.  
Keighery, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.  
Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

## 6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)