



1. Application details

1.1. Permit application details

Permit application No.: 565/1
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:
5.3		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
Beards Vegetation Association #82 - Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> (Hopkins et al, 2001).	The area under application is located within an active mine lease area. Adjoining this application area to the north is an area previously granted a clearing permit (CPS 285/1). Haul roads border the area to the east and west. Much of the area has been previously disturbed by mining activities (Pilbara Iron, 2005), and an access track runs through it. The survey performed by Pilbara Iron (2005) covered an area that extended beyond the area proposed to be cleared. The results of this survey influenced the decision for the location of the waste dump extension.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The description of the vegetation to be cleared was obtained from a survey report performed by staff at Pilbara Iron (DoE Ref: TRIM KNI726) and aerial photographs provided by the proponent in the Permit Application.

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 site comprises hummock grasslands and a 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 Pilbara Iron (2005) identified 17 family, 29 genera and 35 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 initial waste dump, for which this permit application is an extension of that waste dump. The application area is located within the Tom Price mine operation, so has already been disturbed by mining activities and haul roads (Pilbara Iron, 2005). 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;
Pilbara Iron, 2005;
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)

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 on 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 unlikely to be at variance with this Principle (CALM, 2005).

Methodology CALM Advice, 2005;
Pilbara Iron, 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

Species known to occur within a 50km radius:
Eremophila magnifica subsp. magnifica - P4
Indigofera ixocarpa ms - P2
Triumfetta leptacantha - P3 (CALM, 2005)

The botanical survey supplied by the proponent (Pilbara Iron, 2005) stated that Priority 2 taxon *Indigofera ixocarpa ms* was recorded from four locations, with 1 to 20+ healthy individual specimens noted at each location. *Indigofera ixocarpa ms* is a known disturbance opportunist and has previously been recorded in the local area. As such its local distribution is unlikely to be significantly impacted as a consequence of this proposal being approved. The survey noted the presence of grass species *Eriachne sp.* Hamersley Range Hilltops (S. van Leeuwen 4199) from three locations in the survey area with 20 to 100 plants at each location. This taxon is no longer listed as a Priority taxon by CALM (CALM, 2005).

CALM is supportive of commitments made by the proponent in previous clearing applications, regarding the licensed seed collection and the subsequent regeneration of *Indigofera ixocarpa ms* in rehabilitation programs following the cessation of mining activities in the area, and would expect the same procedures to be undertaken as part of this proposal (CALM, 2005).

Methodology CALM Advice, 2005;
Pilbara Iron, 2005;
GIS Database: Declared Rare and Priority Flora Lists - CALM 13/08/03

(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 field assessment was undertaken by CALM, however, aerial imagery provided by the proponent indicates that past and present mining activities have significantly impacted on flora and fauna habitat values in the immediate vicinity of the proposed clearing (CALM, 2005).

There are no known Threatened Ecological Communities within the area proposed for clearing.

Methodology CALM Advice, 2005;
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).

Pre-European Current Remaining Conservation % in
reserves/CALM-

	area (ha) *	extent (ha) *	%*	Status**	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					
- 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 Association 82 (Hopkins et al, 2001), of which there is ~100% of the pre-European extent 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 any wetlands or watercourses.

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 and haul tracks (Pilbara Iron, 2005). 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, however, the clearing is unlikely to represent a significant land degradation risk.

Methodology Pilbara Iron, 2005;
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, and therefore 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. Given the small area to be cleared, 5.3 hectares, it is unlikely to have a significant impact on surface water quality or groundwater.

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 5.3 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 so 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 - Bulgwingi Talu (ID 7151) and Mulba (ID 7152). 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 [GWL107418(6)] for the purpose of dewatering and mineral processing, granted in accordance with the Rights in Water and Irrigation Act 1914. If the proposed clearing or intended land use of a waste dump requires additional water for dewatering and mineral processing, 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 dump.

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	5.3	Grant	Assessable criteria have been addressed and no objections were raised. It is recommended that the proponent, using licenced seed collection methods, ensure the regeneration of <i>Indigofera ixocarpa</i> ms in rehabilitation programs following the cessation of mining activities in the area. The Assessing Officer 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 Reference: TRIM KNI1020.

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.

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.

Pilbara Iron (2005) Botanical Survey Advice: Environment Department. Project Number 2005/13. Document Number 108580. Unpublished Document. Department of Environment Reference: TRIM KNI726

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)