



1. Application details

1.1. Permit application details

Permit application No.: 500/1
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: West Pit (Smithy's Knob), Tom Price Iron Ore Mine

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
9.9		Mechanical Removal	Mining

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)	The area under application comprises of 9.9Ha of remnant vegetation that is surrounded by existing mine operations. The vegetation has been impacted upon by exploration tracks and adjacent mining activities. No declared rare flora was located within the surveyed area, however one Priority 2 species, <i>Indigofera ixocarpa</i> , was recorded. Only one weed species, <i>Acetosa vesicaria</i> , was identified on the site (Pilbara Iron Pty Ltd, 2004).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Desktop assessment of vegetation association based on Pilbara Iron's Botanical Survey Advice (Pilbara Iron Pty Ltd, 2004).

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 area under application is a small area of remnant vegetation in a mostly cleared landscape. While the vegetation is quite diverse with a total of 28 families, 46 genera and 75 species being identified within the survey area (Pilbara Iron Pty Ltd, 2004), the vegetation to be cleared borders an active mine pit and the site area has also been previously disturbed by exploration tracks (Pilbara Iron Pty Ltd, 2004). Therefore, the site to be cleared is unlikely to be of higher biodiversity significance than the vegetation in the local region.

Methodology Permit Application;
Pilbara Iron Pty Ltd (2004).

(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**
While there is limited CALM fauna records that relate to the area under application (CALM, 2005), it has been disturbed by previous mining activity and is surrounded by existing mining infrastructure. Therefore links, such as wildlife corridors, between the proposed area to be cleared and other native vegetation do not exist. Thus, the vegetation is unlikely to support significant habitat for fauna populations (CALM, 2005).

Methodology GIS Database - Aerial Photograph;
Permit application;
CALM (2005).

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

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

The vegetation to be cleared borders an active mine pit. Whilst no Declared Rare Flora was located within the proposed area to be cleared, six occurrences of Priority Species *Indigofera ixocarpa* was recorded in the survey area (Pilbara Iron Pty Ltd, 2004). This species seems to be throughout the Tom Price area as it has been recorded in numerous surveys before and also seems to prefer previously disturbed areas (Pilbara Iron Pty Ltd, 2004).

Removal of six plants is unlikely to pose a significant impact on the regional viability of *Indigofera ixocarpa* given that it is known to be a disturbance opportunist and is present elsewhere in the local area (CALM, 2005). CALM is supportive of licensed seed collection and the subsequent regeneration of *Indigofera ixocarpa* in rehabilitation programs following the cessation of mining activities in the area (CALM 2005).

Therefore, the site under application is unlikely to be necessary for the continued in situ existence of significant flora.

Methodology Permit Application;
Pilbara Iron Pty Ltd (2004);
CALM (2005).

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant ecological community.

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

There are no known Threatened Ecological Communities recorded in the vicinity of the area under application.

Methodology GIS Database:
Threatened Ecological Communities - CALM 15/7/03;
EPBC Act (1999) List of Threatened Ecological Communities - Department of the Environment and Heritage;
CALM (2005)

(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 at variance to this Principle

	Pre-European area (ha) *	Current extent (ha) *	Remaining %*	Conservation Status**	% in reserves/ CALM- 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)

*** Area within the Intensive Landuse Zone - if this is applicable

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).

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

(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 watercourse or wetland.

Methodology GIS Database: Hydrology, linear - DOE 1/02/04
Aerial Photograph

(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 likely land degradation risks posed by the clearing of vegetation are minimal as the immediate surrounding area is already largely cleared for mining operations and will be managed as part of the mine infrastructure. Water and wind erosion, water logging and land salinisation are not likely to be significantly impacted should the vegetation on this site be cleared.

Methodology GIS Database:
Aerial Photograph;
Soils, Statewide - DA 11/99;
Groundwater Salinity, Statewide - 22/02/00.

(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 at variance to this Principle**
Karijini National Park is located 16km east of the area under application. However, the proposed clearing area is within an operating mine site and is therefore unlikely to cause substantial additional impact on this conservation area (CALM,2005).

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

(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 clearing of vegetation within the operating mine area is unlikely to significantly impact on surface water quality or groundwater resources in the area. The proposed clearing area is not in a Public Drinking Water Source Area.

Methodology GIS Database:
- Public Drinking Water source Areas (PDWSA's) -DOE 29/11/04;
- Hydrography, linear (hierachy) - DOE 13/4/05

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

Comments **Proposal is not likely to be at variance to this Principle**
The average rainfall of the area is ~400mm. It is unlikely that the removal of 9.9ha of vegetation will have a significant influence on the run-off and flood regimes in the local area.

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

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

Comments
No objections have been received regarding the clearing native vegetation in the area under application. The vegetation to be cleared is within Mineral Lease AML70/4 granted in accordance with the Iron Ore (Hamersley Range) Agreement Act 1963 and the Mining Act 1908. There is one Native Title Claim over the area under application by the Eastern Guruma peoples. However, the Mineral Lease has been granted so therefore the granting of a clearing permit does not constitute a future act under the Native Title Act 1993. The proposed area lies within the Mulba area on the Interim register on the Aboriginal Sites of Significance. This application to clear is not at variance to the EPA advice given under s48 level 2 (CRN 104411) (Environmental Protection Authority, 1996). There are no other RIWI Act Licences or Works Approvals that will affect the area that has been applied to clear. This application is not at variance to the conditions set by EP licence number 4762.

Methodology GIS Database:- Aboriginal Sites of Significance - DIA 04/07/02;

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mining	Mechanical Removal	9.9	Grant	Assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the permit should be granted. It is recommended that prior to clearing, licensed seed collection of taxon <i>Indigofera ixocarpa</i> be undertaken for subsequent regeneration of this taxon in rehabilitation programs following the cessation of mining activities in the area.

5. References

- CALM (2005) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE Reference: Trim IN22624
- Department of the Environment and Heritage Database Reporting Tool (coordinates: -22.7491, 117.7513; 5km buffer)
- Environmental Protection Authority (1996) Level of assessment for Scheme TPS 6 - District Scheme, Shire of Ashburton, Scheme Not Assessed - Advice Given (no appeals). DoE Reference: Trim K5342.
- 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, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Pilbara Iron (2004) Botanical Survey Advice: Environment Department. Project Number 2004/61. Document Number 103802. Unpublished Document. DoE Ref: TRIM KNI892
- 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)